A CROSS-SECTIONAL STUDY OF THE ASSESSMENT OF KNOWLEDGE OF BREAST FEEDING AND ITS SOURCE IN DIFFERENT AGE GROUPS OF FEMALES ATTENDING A TERTIARY CARE HOSPITAL IN NORTH KARNATAKA.

Community Medicine

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ABSTRACT

Background: A child's survival and growth depend on proper nutrition, which begins with early breastfeeding and colostrum, continues with exclusive breastfeeding for six months, and then introduces complementary foods. Breastfeeding is a global priority and lowers the risk of breast cancer. Breastfeeding should begin within the first hour and continue for at least two years, according to WHO and UNICEF recommendations.
Methods: We conducted a cross-sectional study in the inpatient and outpatient departments of the Gadag Institute of Medical Sciences, with a sample size of 300 participants. The study was hospital-based. The study's participants were divided into four groups: women over 44 years, adolescents (16–19 years), primigravida, and multigravida. **Results:** The study showed 13.7% of adolescents have poor knowledge, whereas the other group's multigravida, women over 44 years old, and primigravida had 20.0%, 14.7%, and 10.3% good knowledge, respectively. There is a significant p-value between the study group and breastfeeding. Higher education levels correlate with better knowledge; SES shows no significant association. Rural areas have higher moderate (27.7%) and poor knowledge (11.7%) compared to urban areas (better knowledge at 22.0%).
Conclusions: This study found that level of breastfeeding knowledge was generally low across all study groups, with primigravida and multigravida showing slightly better knowledge compared to adolescent and women over 44 years. There was a lack of health education among adolescents, indicating the need for targeted educational groups.

KEYWORDS

Women Over 44 Years, Adolescents, Primigravida and Multigravida, Breast Feeding, Knowledge, Early Breastfeeding.

INTRODUCTION

Proper infant feeding is most important for a child's survival and physical and mental development. This consists of beginning breastfeeding as early as possible, along with colostrum feeding, breastfeeding exclusively for six months, and then slowly introducing complementary foods after six months.[1] Breastfeeding reduces the risk of breast cancer among women.[2]

Improving breastfeeding practices is indeed considered an important global priority and has been recognized as such within the framework of the Millennium Development Goals (MDGs). In addition to safe and sufficient complementary foods, the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) advise the timely initiation of breastfeeding within the first hour after birth, exclusive breastfeeding for the first six months of life, and continued breastfeeding for up to two years or longer,[3,4.] yet globally, only 44% of infants are breastfed within the first hour.[3]

There is a wealth of research on the demographic factors that influence the length of breastfeeding, and it is generally accepted that women who are older, more educated, and/or have higher incomes breastfeed for longer periods of time.[5,6] Increased rates of breastfeeding initiation, duration, and exclusivity are associated with hospital admission.[7] Maternal employment negatively affects breastfeeding behavior.[8] The ability to continue breastfeeding is correlated with the father's knowledge, attitude, and support, as well as the maternal grandmother's support.[9]

Every year, from August 1 to 7, around the world observes World Breastfeeding Week (WBW) to promote breastfeeding and enhance children's health.[10] Breast milk has improved over time to give human infants the finest nourishment, immune protection, and control over their growth, development, and metabolism.[11] Infants who are not breastfed, or who are breastfed for little amounts of time or with poor intensity, are more likely to contract infections and other diseases than those who receive optimal breastfeeding.[12]

Contrarily, breastfeeding is linked to a mother's postpartum weight loss.[13,14] Breastfeeding exclusively has the natural effect of slowing ovulation, so it acts as a natural birth control for up to 6 months. Breastfeeding is frequently recognized as a facilitator of mother-infant bonding.[15,16,17] According to research, breastfeeding is linked to a decreased risk of long-term metabolic risk factors and cardiovascular disease.[18,19]

The percentage of infants under six months who exclusively breastfed climbed from 55% in 2015–16 to 64% in 2019–21. Children's diets are about equally diverse in both urban and rural settings (24% and 23%, respectively). Infants who are breastfed and those who are not are virtually equally likely to consume the recommended foods (11% and 12%, respectively). Meghalaya has the greatest (29% of children aged 6–23 months) who obtain a minimum acceptable diet, while Uttar Pradesh and Gujarat have the lowest (6% each).[20]

The knowledge of breastfeeding is influenced by numerous factors. Infant mortality rates are greatly impacted by breastfeeding rates. Early education on the issue will aid in its solution. In order to determine knowledge and the sources of that knowledge regarding breastfeeding, this study is planned among various age groups. With the aim and objective of assessing the knowledge of breast feeding across four study groups and the source of knowledge.

MATERIALS AND METHODS
Study Area
The study was carried out in the Gadag Institute of Medical Sciences Gadag outpatient department and inpatient department.

Study Design
A hospital-based cross-sectional study was carried out over the period from September 1st, 2022, to January 31st, 2023.

Inclusion Criteria
Female attendants of hospitals in various departments gave consent for the study.
Exclusion Criteria
Those who are ill and unable to participate in the study.

Sample Size Determination
Formula: $n=(Z\alpha)2\times P\times(1-P)/d2$, where $Z\alpha$ = is the standard normal variate with a 95% confidence interval of 1.96, p = is the percentage of Indian infants who are breastfed within one hour of birth according to NFHS 5,[21] = 41.8%, and d is the absolute precision error of 6%. Using the preceding calculation with all the values, $n = (1.96)^2*0.418*0.582/(0.06)^2 \approx 260$. With 15% representing the unresponsive rate of about $\approx$ 39, the final sample size (n) was rounded to 300.

Study Tools and Data Collection
A predesigned, pretested questionnaire was administered by the interviewer. The questionnaire, which contained both closed-ended and open-ended questions to fulfill our study objectives, was prepared after a pilot study of 20 participants. Responses from pilot study participants were later excluded from the final result.

A conventional sampling technique was employed in this study to collect a sample of 75 individuals from four study groups: women aged over 44 years, primigravida, multigravida, and adolescents (16–19 years). The results were compared among these study groups.

A total of twelve knowledge questions, both closed and open-ended, were included in the study. Correct answers were assigned a score of 1, while incorrect answers received a score of 0, and one open-ended question concerned the origin of knowledge.

For each study participant, final scores were given, and the scoring system was as follows: knowledge: good (9-12 points), moderate (5-8 points), and poor (1-4 points), and each knowledge group received an equal allocation of the 12 total points.

Ethical Consideration and Consent
The Institutional Ethics Committee gave its clearance before data collection.

Data Analysis
Data, which was entered into a Microsoft Excel spreadsheet. The data analysis was done using MS Excel and Jamovi software. Ratios and percentages were used to represent categorical data, as well as the mean and standard deviation for continuous data. The chi-square test was used to analyze the relationship between two variables, and a p-value of < 0.05 was accepted as statistically significant.

RESULT
Table 1: Basic Demographics Of The Study Participants

Factor	Adolescent	Primigravida	Multigravida	Women > 44 Years
	Number (%)	Number (%)	Number (%)	Number (%)
1. Age (in years)				
16-19	75(25%)	0(0%)	0(0%)	0(0%)
20-25	0(0%)	29(9.7%)	41(13.7%)	0(0%)
26-31	0(0%)	39(13.0%)	31(10.3%)	0(0%)
32-37	0(0%)	6(2.0%)	2(0.7%)	0(0%)
38-43	0(0%)	1(0.3%)	1(0.3%)	0(0%)
44-49	0(0%)	0(0%)	0(0%)	27(9.0%)
50-55	0(0%)	0(0%)	0(0%)	23(7.7%)
56-61	0(0%)	0(0%)	0(0%)	15(5.0%)
62-67	0(0%)	0(0%)	0(0%)	3(1.0%)
68-73	0(0%)	0(0%)	0(0%)	7(2.3%)
2. Religion				
Hindu	62(20.7%)	73(24.3%)	67(22.3%)	66(22.0%)
Muslim	13(4.3%	2(0.7%)	8(2.7%)	9(3.0%)
3. Education				
Illiterate	2(0.7%)	7(2.3%)	7(2.3%)	35(11.7%)
Primary	7(2.3%)	14(4.7%)	29(9.7%)	14(4.7%)
High school	54(18.0%)	35(11.7%)	26(8.7%)	16(5.3%)
PUC/Diploma	12(4.0%)	19(6.3%)	13(4.3%)	6(2.0%)
Degree	0(0.0%)	0(0.0%)	0(0.0%)	4(1.3%)
4. SES				
Class 1	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Class 2	0(0.0%)	0(0.0%)	0(0.0%)	2(0.7%)
Class 3	9(3.0%)	19(6.3%)	9(3.0%)	5(1.7%)
Class 4	37(12.3%)	39(13.0%)	32(10.7%)	34(11.3%)
Class 5	29(9.7%)	17(5.7%)	34(11.3%)	34(11.3%)
5. Residence				
Rural	58(19.3%)	47(15.7%)	39(13.0%)	45(15.0%)
Urban	17(5.7%)	28(9.3%)	36(12.0%)	30(10.0%)

There are 300 study individuals included in the study; Table 1 presents demographic and socioeconomic data for four groups of women: adolescents, primigravida, multigravida, and women over 44 years old. Among adolescents, all are in the age group of 16–19 years (25%), primigravida predominantly aged 26–31 years (13.0%), followed by 20–25 years (9.7%), multigravida highest in 20–25 years (13.7%), then 26–31 years (10.3%), and women > 44 years majority aged 44–55 years (16.7%).

Highest among primigravida (24.3%) and fairly consistent across other groups (~22%) belongs to the Hindu religion. whereas Muslim religion is highest among adolescents (4.3%).

According to education level, illiteracy is highest in women > 44 years (11.7%), up to primary education highest in multigravida (9.7%), up to high school majority belongs to adolescents (18.0%), those who completed PUC/Diploma highest in primigravida (6.3%), Degree: Only represented in women > 44 years (1.3%).

Class 2 socioeconomic status is very low across all groups, whereas class 3 is highest in primigravida (6.3%), Class 4 is fairly consistent, highest in primigravida (13.0%), and women > 44 years (11.3%) belong to class 5, highest in multigravida (11.3%) and women > 44 years (11.3%).

Distribution of study participants based on residence: from rural areas, highest among adolescents (19.3%), and from urban areas, more prevalent in primigravida (9.3%) and Multigravida (12.0%).

Table 2: The Level Of Knowledge Among Study Participants

Knowledge Factors	Adolescent	Primigravida	Multigravida	Women > 44 Years
	Number (Percentage)	Number (Percentage)	Number (Percentage)	Number (Percentage)
Early Breastfeeding (Normal delivery)				
Within 1hr	41(13.7%)	73(24.3%)	68(22.7%)	67(22.3%)
More than1hr	34(11.3%)	2(0.7%)	7(2.3%)	8(2.7%)
Early Breastfeeding (LSCS)				
1 to 2	15(5.0%)	18(6.0%)	60(20.0%)	52(17.3%)
<1	30(10.0%)	57(19.0%)	15(5.0%)	23(7.7%)
>2	30(10.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Exclusive breast feeding				
6m	21(7.0%)	49(16.3%)	67(22.3%)	56(18.7%)
<6m	9(3.0%)	15(5.0%)	0(0.0%)	4(1.3%)
>6m	45(15.0%)	11(3.7%)	8(2.7%)	15(5.0%)
Prelacteal feed given				
Yes	22(7.3%)	11(3.7%)	7(2.3%)	11(3.7%)
No	24(8.0%)	63(21.0%)	67(22.3%)	64(21.3%)
Don't know	29(9.7%)	1(0.3%)	1(0.3%)	0(0.0%)
Discarding colostrum				
Yes	8(2.7%)	0(0.0%)	2(0.7%)	8(2.7%)
No	31(10.3%)	74(24.7%)	69(23.0%)	65(21.7%)
Don't know	36(12.0%)	1(0.3%)	4(1.3%)	2(0.7%)
Reason for discarding colostrum				
Because of its yellow color	9(3.0%)	1(0.3%)	2(0.7%)	8(2.7%)
Don't know	66(22.0%)	74(24.7%)	73(24.3%)	67(22.3%)
Reason for not to discard colostrum				
Better for health	20(6.7%)	37(12.3%)	46(15.3%)	31(10.3%)
For to fulfilling hunger	2(0.7%)	2(0.7%)	17(5.7%)	3(1.0%)
For immunity	5(1.7%)	0(0.0%)	1(0.3%)	1(0.3%)
It contains vitamins	1(0.3%)	0(0.0%)	0(0.0%)	0(0.0%)
Nutritious	2(0.7%)	15(5.0%)	5(1.7%)	10(3.3%)
For growth of child	0(0.0%)	0(0.0%)	0(0.0%)	14(4.7%)
Don't know	45(12.0%)	21(7.0%)	6(2.0%)	16(5.3%)
Frequency of breast feeding				
2 hour	28(9.3%)	64(21.3%)	61(20.3%)	30(10.0%)
<2 hour	26(8.7%)	9(3.0%)	10(3.3%)	30(10.0%)
> 2hr	21(7.0%)	2(0.7%)	4(1.3%)	15(5.0%)
Duration of breast feeding				
1y	25(8.3%)	7(2.3%)	4(1.3%)	9(3.0%)
2y	23(7.7%)	26(8.7%)	61(20.3%)	52(17.3%)
3y	27(9.0%)	42(14.0%)	10(3.3%)	14(4.7%)
Position of breast feeding				
Correct	22(7.3%)	74(24.7%)	72(24.0%)	72(24.0%)
Incorrect	11(3.7%)	1(0.3%)	3(1.0%)	3(1.0%)
Don't know	42(14.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Bottle milk feeding				
Yes	5(1.7%)	0(0.0%)	3(1.0%)	12(4.0%)

No	68(22.7%)	75(25.0%)	72(24.0%)	63(21.0%)
don't know	2(0.7%)	0(0.0%)	0(0.0%)	0(0.0%)
Time of supplementary feeding				
6m	21(7.0%)	28(9.3%)	49(16.3%)	56(18.7%)
<6m	9(3.0%)	25(8.3%)	1(0.3%)	4(1.3%)
>6m	45(15.0%)	22(7.3%)	25(8.3%)	15(5.0%)

Table 2 provides data on the knowledge of breastfeeding practices among four groups: adolescents, primigravida, multigravida, and women over 44 years old. Early breastfeeding (EBF) knowledge after normal delivery is highest within 1 hour in primigravida (24.3%),, followed by multigravida (22.7%), and women > 44 years (22.3%). After 1 hour, it is highest in adolescents (11.3%).

With respect to early breastfeeding (EBF) after a cesarean section (LSCS), the distribution of initiation times among different groups is as follows: 1 to 2 hours were the highest in multigravida (20.0%), followed by women > 44 years (17.3%), while those said within 1 hour were the highest in primigravida (19.0%), and after 2 hours were represented only by adolescents (10.0%).

About the duration of exclusive breastfeeding for 6 months, most of the multigravida (22.3%) have better knowledge among others, followed by women > 44 years (18.7%) and primigravida (16.3%), where those who believe it is less than 6 months are highest in primigravida (5.0%) and those who say it is more than 6 months are highest in adolescents (15.0%). The majority of women over 44 years (21.3%), multigravida (22.3%), and primigravida (24.7%) knew that prelacteal feeding should not be given to a newborn; within the adolescent group, 7.3% agreed and 9.7% were not aware of the question.

Across all groups, the majority do not discard colostrum, with the highest percentage among primigravida (24.7%) and the lowest among adolescents (10.3%). The level of uncertainty ("don't know") is highest among adolescents (12.0%) and lowest among primigravida and women > 44 years old (both at 0.3%). There are prevalent misconceptions about colostrum, particularly its yellow color, which some respondents associate with a reason for discarding it. This misconception is notably higher among adolescents (3%) and women > 44 years old (2.7%).

The belief that colostrum is better for health is widespread, particularly among multigravida (15.3%) and primigravida (12.3%), but less so among adolescents (6.7%). Knowledge about colostrum fulfilling hunger and providing immunity is lower across all groups. The understanding that colostrum is nutritious is notably higher among Primigravida (5.0%). Awareness of colostrum's role in the growth of the child is recognized only by women > 44 years old (4.7%). Among the study group, adolescents don't know the role of colostrum (12.0%), followed by primigravida (7.0%).

Most groups recognize the importance of frequent breastfeeding, particularly every 2 hours, primigravida (21.3%), multigravida (20.3%), and women's aged more than 44 years (10.0%), except adolescents (7.0%), who said more than 2 hours. Duration of Breastfeeding Knowledge varies, with Multigravida (20.3%) and Women > 44 Years (17.3%) aware of feeding up to 2 years, but adolescents (8.3%) said less than 1 year.

Position of Breastfeeding Primigravida (24.7%), Multigravida (24.0%), and Women > 44 Years (24.0%) are well-informed, but adolescents are only (7.3%) aware of the correct breast feeding position.

Bottle milk feeding knowledge is generally low across all groups, indicating good adherence to breastfeeding recommendations. The timing of supplementary feeding knowledge varies widely, with a notable portion of adolescents (15.0%) and multigravida (8.3%) needing more information about appropriate timing.

Table 3: Score Of Level Of Knowledge Among Study Participants

Factors	Knowledge			p-value (chi-square test)
	Good	Moderate	Poor	
1. Study Group				
Adolescent	0.7%	10.7%	13.7%	<0.001
Primigravida	10.3%	14.7%	0.0%	
Multigravida	20.0%	5.0%	0.0%	
Women > 44 Years	14.7%	10.0%	0.3%	
2. Age				
16-19	0.7%	10.7%	13.7%	<0.001
20-25	12.7%	10.7%	0.0%	
26-31	16.7%	6.7%	0.0%	
32-37	0.7%	2.0%	0.0%	
38-43	0.3%	0.3%	0.0%	
44-49	6.3%	2.7%	0.0%	
50-55	2.0%	5.7%	0.0%	
56-61	3.3%	1.3%	0.3%	
62-67	1.0%	0.0%	0.0%	
68-73	2.0%	0.3%	0.0%	
3. Religion				
Hindu	41.0%	36.0%	12.3%	0.953
Muslim	4.7%	4.3%	1.7%	
4. Education				
Illiterate	1.7%	7.7%	12.7%	<0.001
Primary	4.7%	16.0%	10.7%	
High school	7.0%	8.3%	0.7%	
PUC/Diploma	7.7%	4.7%	0.7%	
Degree	13.7%	3.7%	0.3%	
5. SES				
Class 1	0.0%	0.0%	0.0%	0.17
Class 2	0.0%	0.7%	0.0%	
Class 3	8.7%	3.3%	2.0%	
Class 4	20.0%	20.3%	7.0%	
Class 5	17.0%	16.0%	5.0%	
6. Residence				
Rural	23.7%	27.7%	11.7%	<0.001
Urban	22.0%	12.7%	2.3%	

Table 3 distributions reveal that 13.7% of adolescents have weak knowledge, whereas 20.0% of multigravida have good knowledge. Women over 44 and primigravida follow with 14.7% and 10.3% of good knowledge, respectively. A high correlation between the study group and breastfeeding expertise is indicated by the significant p-value.

Younger age groups (16–19) have poor knowledge (13.7%). Middle-aged groups 26–31 (16.7%) and 20–25 (12.7%) show better knowledge. The significant p-value indicates a strong association between age and breastfeeding knowledge.

There is no significant association between religion and breastfeeding knowledge, as indicated by the high p-value. Both Hindu and Muslim groups show a similar distribution of knowledge levels. Higher education levels (degree 13.7%, PUC/diploma 7.7%) are associated with better knowledge, while lower or no education (illiterate 12.7%, primary 10.7%) show poorer knowledge. The significant p-value indicates a strong association between education and breastfeeding knowledge.

There is no significant association between SES and breastfeeding knowledge, as indicated by the non-significant p-value. The distribution shows similar knowledge levels across different SES classes.

According to residents, rural areas show higher percentages of moderate (26.7%) and poor knowledge (11.7%) compared to urban areas, which tend to have better knowledge (22.0%). The significant p-value indicates a strong association between rural residence and breastfeeding knowledge.
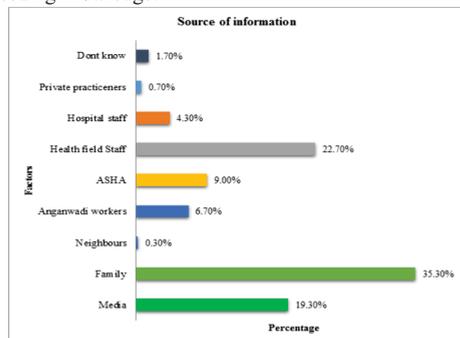

Fig. 1: Source Of Information And Knowledge Of Breast Feeding

Figure 1 shows the source of breastfeeding knowledge. The most common source of breastfeeding knowledge is the family, with over a third of respondents (35.3%) citing this source. Health field staff is the second most common source, with 22.7% of respondents receiving information from professionals in the health sector.

Media is also a significant source, with 19.3% of respondents obtaining information from various media channels. Accredited Social Health Activists (ASHA) and Anganwadi workers are notable sources, contributing 9.0% and 6.7%, respectively.

Hospital staff accounts for 4.3% of the sources; private practitioners and neighbors are the least common sources, with 0.7% and 0.3%, respectively. A small percentage (1.7%) of respondents are unsure of their source of information, which could indicate a lack of clarity or recall regarding where they received their breastfeeding knowledge.

DISCUSSION

This study set out to assess the level of breastfeeding knowledge among four study groups as well as the sources of such knowledge. After a normal delivery, primigravida (24.3%) had better knowledge of early breastfeeding (EBF) compared to other groups, including multigravida (22.7%) and women > 44 Years (22.3%). In light of the NFHS 5 statistic,[21] which shows that 41.8% of children nationally are breastfed within an hour after delivery, our study found that the level of breastfeeding knowledge was lower across all study groups. The lowest knowledge levels were observed among adolescents, indicating a significant lack of health education. By comparison, a study conducted by Rajak et al. discovered that 23% of women knew that breastfeeding should begin as soon as the infant is delivered, and these findings are similar to the current study.[22]

In contrast to other groups, we discovered that the majority of our participants—those in the multigravida (20.0%) and women over 44 (17.3%) age groups—knew that breastfeeding should start 1 to 2 hours following a cesarean section (LSCS). The majority of the adolescent group believed that breastfeeding should start after 2 hours, indicating that they knew the least about a subject. However, the majority of primigravida (19.0%) wish to start breastfeeding within 1 hour of LSCS. Although the World Health Organization advises breastfeeding during the first hour of the baby's life to secure the best start possible, mothers who have had C-sections typically have to wait longer to begin nursing. Breastfeeding starts as soon as the C-section is completed. A special hospital initiative launched by UNICEF is carried out with the assistance of staff nurses who have received training.[23]

We found that most multigravida (22.3%) had greater knowledge than other groups up to 6 months of exclusive breastfeeding, followed by women over 44 (18.7%) and primigravida (16.3%). The majority of those who stated more than six months are adolescents (15.0%). According to the NFHS-5 study, 61% of newborns in the state of Karnataka were exclusively breastfed up to 6 months of age, and at the level of the nation, it is 63.7%.[21,24] Poor knowledge among our research participants indicated that all study groups needed further education.

In our study, most participants across all groups did not discard colostrum. Adolescents show the highest level of uncertainty about this practice at 12.0%, while women over 44 and primigravida show the least uncertainty at 0.3%. Misconceptions about colostrum, especially due to its yellow color, lead some to discard it. This misconception is particularly prevalent among women over 44 (2.7%) and adolescents (3%). A study by KakatiR et al. found that 30.7% of mothers discarded their colostrum due to issues such as retracted or cracked breasts and extreme weakness post-delivery. Additionally, 20.5% believed their child could not digest colostrum, and 12.8% discarded it out of ignorance.[25] This difference indicates that those participating in our study understood more about colostrum.

The study found that the belief in the health benefits of colostrum is widespread, especially among primigravida (12.3%) and multigravida (15.3%), but less so among adolescents (6.7%). primigravida also showed higher awareness (5.0%) that colostrum is nutrient-dense. Women over 44 years old (4.7%) valued colostrum's role in child development. However, 20% of adolescents in the study were unaware of colostrum's function. Yeshambel A et al. reported that a substantial 59.8% of mothers view colostrum as essential for keeping their baby healthy, while 33.7% see it as important for growth.[26] These findings highlight the need for targeted educational programs to address the

knowledge gaps, especially among adolescents. Enhancing education on the benefits of colostrum could promote better maternal and child health outcomes across all age groups and maternal statuses.

Most groups recognize the importance of frequent breastfeeding, particularly every 2 hours, primigravida (21.3%), multigravida (20.3%), and women aged more than 44 years (10.0%). This indicates a strong understanding of optimal breastfeeding practices among these groups, likely due to their increased exposure to maternal health education and experience. The adolescent group (7.0%) is not very aware, as they believe breastfeeding should occur less frequently than every 2 hours. Duration of Breastfeeding Knowledge varies, with multigravida (20.3%) and women > 44 Years (17.3%) aware of feeding up to 2 years, but adolescents (8.3%) said less than 1 year.

The study's findings indicate that women who are primigravida, multigravida, and older than 44 years have a generally greater understanding of breastfeeding habits, such as frequency, duration, and positions. Adolescents, on the other hand, constantly show lower levels of awareness and knowledge, which highlights the urgent need for focused educational initiatives to increase their comprehension of breastfeeding. Furthermore, although breastfeeding is generally more adhered to than bottle feeding, more information is still needed to determine when to introduce supplementary feedings, particularly for adolescents and multigravida women.

In contrast to the Pandey et al. study, there was a high level of awareness (97.3% overall; younger generation: 96.9%; older generation: 97.7%) about "breast milk" being the greatest nourishment for babies. There was a relatively low level of overall awareness about the proper method (28.9% younger generation and 21.9% older generation) and the frequency of breastfeeding (20.3% younger generation and 34.4% elder generation). Less than 60% of respondents (younger generation: 57.8%; older generation: 58.6%) knew that an HIV-positive mother is the sole significant reason not to breastfeed.[27]

Our research provides numerous significant findings based on knowledge scoring. The age groups with the lowest knowledge (13.7%) are younger (16–19). On the other hand, middle-aged groups (26–31 and 20–25) show greater knowledge, suggesting a significant correlation between age and breastfeeding knowledge. It's interesting to note that breastfeeding knowledge and religion do not significantly correlate. The significance of education in forming breastfeeding knowledge is also highlighted by the study. Greater knowledge is correlated with higher education levels, such as a degree or PUC/diploma, while lower or no education is correlated with worse knowledge. Similar to this, residents influence a lot. While urban areas often have greater knowledge, rural places tend to have higher percentages of moderate and poor knowledge.

The most common source of breastfeeding knowledge is the family (35.3%) of respondents. This explains the role that family members, such as mothers, grandmothers, and other relatives, play in imparting breastfeeding knowledge. It is thought that "lay knowledge," which refers to meanings and experiences shaped by the social context in which people live, is a more helpful notion than "attitudes" or "beliefs" since it recognizes that people are individuals living in social environments.[28] Health field staff are the second most common source, with 22.7% of respondents obtaining the knowledge from community health workers. Media is a significant source, with 19.3% of respondents receiving knowledge through various channels such as television, radio, the internet, and print media.

ASHA workers contribute 9.0%, while Anganwadi workers contribute about 6.7% and are crucial in rural and community health education, particularly in maternal and child health. Hospital staff account for 4.3%. This likely includes information provided during hospital visits, prenatal care, and postnatal care, emphasizing the role of hospitals in breastfeeding education. Private practitioners and neighbors are the least common sources, with only 0.7% and 0.3%, respectively. This suggests that private healthcare providers and immediate community members are less frequently turned to for breastfeeding information. A small percentage (1.7%) of respondents are unsure of their source of information. According to one study by Sultania P. et al., 61% of respondents got knowledge on breastfeeding from friends or family, 57% from prior experience, 39% from media or literature, and just 35% from medical professionals.[29]

CONCLUSION

This study found that the level of breastfeeding knowledge was generally low across all study groups, with primigravida and multigravida showing slightly better knowledge compared to adolescents and women over 44 years old. There was a lack of health education among adolescents, indicating the need for targeted educational groups. Study participants' overall knowledge was found to be lower than that of national statistics. Family members, health field staff, and the media were the main sources of breastfeeding knowledge for participants.

Recommendation
This gap in the knowledge of breast feeding needs intervention with early health education and continuous education at the field level.

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