

Attitude and Awareness about Breastfeeding in Breast Cancer Patients in Prayagraj District of Uttar Pradesh.

¹ Shahaama Ahmad, ² Dr. JP Srivatava

¹Research Scholar/Faculty of Health Science, / Sam Higginbottom University of Agriculture Technology and Sciences, Prayagraj, Uttar Pradesh, India.

²Retired Professor, Sam Higginbottom University of Agriculture Technology and Sciences, Prayagraj, Uttar Pradesh, India

Email - ¹ shahmaahmad644@gmail.com, ² jpsri2009@yahoo.com

Abstract: Exclusive Breastfeeding and continued breastfeeding are two major practices that determine the health, optimal growth and development of the new born. There is very minimal data regarding the attitude towards breastfeeding in Uttar Pradesh, India. The objective of this study is to examine the difference in attitude towards breastfeeding in breast cancer patients with respect to location. To examine the geographical influence of attitude which plays a major role in healthcare accessibility. This hospital based descriptive study was conducted and the sample comprised of 220 female breast cancer patients. The self structured attitude and awareness scale was constructed to explore the different aspect regarding breastfeeding. Spearman and Pearson correlation and chi square test was used to calculate the strength of association. The belief that formula feeding is as nutritious as breast milk showed a significant difference ($p=0.0045$), with urban women more likely to agree. Urban women expressed higher agreement that breastfeeding reduces the risk of breast cancer ($p=0.0033$) and that colostrums is vital for protecting against allergies ($p=0.0023$). The attitude and awareness regarding breastfeeding in urban women is moderate but still the preference of considering milk substitutes as better alternatives is to be addressed. These findings highlight the importance of targeted intervention in both rural and urban areas to raise awareness about the dual benefits of breastfeeding for both mother and child.

Keywords : Attitude , Awareness , Breastfeeding , Breast Cancer.

1. INTRODUCTION: Breastfeeding is universally accepted and recognized as the most natural and beneficial method of infant feeding. It ensures child health and survival. It has an advantage on health for both mother and child. Only less than half of infants under six months old are exclusively breastfed, which falls against the recommendations of WHO. For infants, breast milk is the best food. It has antibodies that help guard against a number of common childhood illnesses and is safe and clean. All of the energy and nutrients an infant requires during the first few months of life are provided by breast milk, which also supplies up to half or more of a child's caloric needs during the latter half of the first year and up to one-third during the second year. Children who are breastfed do better on IQ tests, have a lower probability of being overweight or obese, and are less likely to develop diabetes in the future. Breastfeeding women are also less likely to develop ovarian and breast cancers. Worldwide initiatives to increase breastfeeding rates and duration are still being hampered by inappropriate marketing of breast milk substitutes. (WHO) The proportion of infants under six months of age who are exclusively breastfed has risen by more than 10 per cent worldwide in the past 12 years. This indicates that 48% of infants globally now benefit from this healthy beginning. In other words, breastfeeding has saved the lives of hundreds of thousands of infants. According to the most recent data available, improving breastfeeding rates could save the lives of over 820,000 children annually (WHO,2024)

A time trend study conducted with the help of national family health survey NHFS -3 and NFHS 4 from the year 2005-06 to 2015-15 elucidated that there was 8.4 % of increase in exclusive breastfeeding in India. (Ghosh, et.al.,2022)

The overall EBF practice showed an increasing trend in the NFHS-5 compared to the NFHS-4 survey. However, a vast gap remains unaddressed in the Indian setting with > 50% of the population still not exclusively breastfeeding their infants for the WHO recommended duration of first 6 months. Behavioural studies dissecting the complex interplay of factors influencing EBF within the heterogeneous Indian population can help plan interventions to promote and scale-up EBF in Indian infants. (Sharma ,et.al.2023) A comparative study of urban and rural mothers was conducted in northern Karnataka of India. There were 600 women from rural areas and 100 from urban areas among the 900 women in the sample. The findings showed that, in comparison to urban mothers, rural mothers tended to initiate breastfeeding earlier, exclusively breastfeed for the first six months, and continue breastfeeding for longer. In contrast to mothers in rural areas (21.83%), a higher percentage of urban mothers (37.33%) did not feed colostrum. When comparing urban and rural mothers, the former were more knowledgeable about breastfeeding. However, compared to mothers in cities, mothers in rural areas had a more positive attitude regarding breastfeeding.(Vinutha ,et.al.,2018)

Willingness to breastfed a baby is not just personal decision but multiple other factors which are responsible for it. The social and psychological factors, family support, workload on a female counterpart. These are some of the factors which play a pivotal role in developing a mindset of the mother to practice breastfeeding. The breastfeeding practices are influenced by cultural and community beliefs in rural region. (Bandyopadhyay, 2009). Present study was conducted to measure the attitude and awareness of women towards breast feeding and how attitude changes when various social variables interact with each other. Since, attitude is a function of various parameters for e.g. Social, economical and psychological profile of respondents .Various parameters were measured such as personal profile (age, education), social profile (caste, religion, family size, and family type), and economic profile (income). The Breastfeeding promotion network of India was found in 1991 for the promotion, protection and support of breastfeeding in India. (Pannair, et.al., 2021)

2. LITERATURE REVIEW: Pannair, et. al.,2021- reported that the recent global trends depict the decline in breastfeeding practices due to maternal employment and rapid urbanization. Urban population in many developing countries like India also shows the similar trend.

Silva, et.al, 2010- Breastfeeding is not only beneficial for child's health it is also beneficial for mothers health. A case control study conducted on 30-64 years aged women found that Multivariate analysis found that those women who breastfed for ≥ 24 months during lifetime had significantly lower risk of breast cancer than those who breastfed for less than 24 months .

Verma, et.al., 2016- In a Cross-sectional study conducted in Uttar Pradesh where a total of 256 new mothers were interviewed stated that only 24.8% of the total women going for the practice of exclusive breast-feeding. It was observed that the cultural belief was seen to be one of most dominant factor for the practice of giving pre-lacteal feed. It was seen that many factors associated with the practice of breastfeeding including psychosocial factors, maternal socio-demographic characteristics, hospital practices and environmental support, etc.

Zhou , 2015- The assessment of attitude towards breastfeeding is crucial in breast cancer patients since prolonged breastfeeding not only benefits the child but it has a protective affect against breast cancer.

3. OBJECTIVES : To examine the geographical influence of attitude and awareness regarding breastfeeding in Breast Cancer Patients in Prayagraj district of Uttar Pradesh.

4. RESEARCH METHOD: A descriptive cum evaluator study was conducted involving 220 breast cancer patients attending OPD of Oncology department for the treatment of Breast Cancer in Regional Cancer Centre of Prayagraj , Uttar Pradesh. A structured data tool was developed to assess the detailed overview of attitude regarding breastfeeding in breast cancer patients using continuous assessment scales. The nature and objective of study were clearly made understandable to the patients in a Hindi language which is a locally spoken language. There were 21 attitude and awareness based self structured questions which were coded as Agree, Undecided and Disagree (3, 2,1) respectively.

Inclusive criteria- All the women who were diagnosed with breast cancer attending the OPD of oncology department for follow-up or treatment were included in the study.

Exclusive criteria-

1. Male breast cancer patients
2. Patients who were critically ill.
3. Not willing to participate.

The demographic data collected were; Age, location, employment, education, occupation, religion, family type and size, Age at first child. The data was collected and responses were analyzed using SPSS tool to obtain a result.

5. FINDINGS : The hospital based descriptive study was conducted and 220 breast cancer patients were interviewed. Out of which 58 % were rural and 42 % were urban. There was a weak but statistically significant positive relationship between location and attitudes, such as breastfeeding being beneficial for bone development ($r_s = 0.19$, $p=0.005$), boosting immunity ($r_s = 0.12$, $p=0.08$), and meeting nutritional needs and intelligence growth ($r_s = 0.17$, $p=0.01$). Urban women agreed slightly more with these benefits, indicating a higher level of awareness than their rural counterparts. Similarly, urban women were more likely to believe that breastfeeding reduces allergies, asthma, and eczema ($r_s=0.21$, $p=0.0016$) and protects children from gastrointestinal problems ($r_s=0.12$, $p=0.07$). These findings point to potential urban-rural disparities in understanding the impact of breastfeeding on child health, which could be due to differences in education or access to healthcare information

Attitude and Awareness Question	Location	Spearman Correlation	Spearman Value	Pearson Correlation (r)	Pearson p-value
Breastfeeding improves child health.	Rural/Urban	0.1201	0.0755	0.1282	0.0575
Breastfeeding increases immunity in child	Rural/Urban	0.1186	0.0792	0.1191	0.0779
Breastfeeding is beneficial for bone development	Rural/Urban	0.1871	0.0054	0.1784	0.008
Breastfeeding doesn't protect pre-menopausal and post-menopausal cancer	Rural/Urban	0.1614	0.0165	0.1641	0.0148
Breastfeeding maintains the body temperature of Baby	Rural/Urban	0.0314	0.6428	0.0544	0.4224
Formula feeding is as nutritious as breast milk.	Rural/Urban	0.2111	0.0016	0.2173	0.0012
Breast cancer is most treatable when it is detected Early	Rural/Urban	0.1126	0.0958	0.1167	0.0842
Nutritional needs and intelligence growth are automatically fulfilled by breast milk	Rural/Urban	0.1732	0.0101	0.1868	0.0055
Breast feeding controls the gastroenteritis chronic constipation and various types of stomach trouble	Rural/Urban	0.121	0.0732	0.1206	0.0742
I.Q found to be greater than those of children who did not enjoy breastfeeding.	Rural/Urban	0.1186	0.0793	0.1184	0.0796
Childhood diabetes risk becomes less by breast feeding	Rural/Urban	0.0788	0.2447	0.0779	0.2496
Breast Feeding saves from allergies, asthma and eczema diseases	Rural/Urban	0.2113	0.0016	0.2117	0.0016

Breastfeeding encourages emotional and spiritual development of children	Rural/Urban	0.2107	0.0017	0.1975	0.0033
Colostrum is very important for any child because it saves from various allergies	Rural/Urban	0.2086	0.0019	0.1808	0.0072
Mothers milk act as a boon for new born baby	Rural/Urban	0.1982	0.0031	0.1974	0.0033
Breastfeeding mothers become de -shaped.	Rural/Urban	0.0158	0.8153	- 0.0088	0.8968
Breastfeeding has nothing to do with the immune system of child.	Rural/Urban	0.0381	0.5736	0.04	0.5552
Chances of breast cancer is less in Breastfeeding mother	Rural/Urban	0.2207	0.001	0.2165	0.0012
I.Q development has nothing to do with Breast feeding	Rural/Urban	0.0764	0.2593	0.0895	0.1861
Exclusive breastfeeding is not sufficient for the child of an up to 6 months.	Rural/Urban	0.1048	0.1212	0.101	0.1354

Table. 1. Correlation Analysis : Location vs. Breastfeeding Attitudes and Awareness

5.1. Key Findings for Child Health and Nutrition:

There was a weak but statistically significant positive relationship between location and attitudes, such as breastfeeding being beneficial for bone development ($r_s = 0.19$, $p=0.005$), boosting immunity ($r_s = 0.12$, $p=0.08$), and meeting nutritional needs and intelligence growth ($r_s = 0.17$, $p=0.01$). Urban women agreed slightly more with these benefits, indicating a higher level of awareness than their rural counterparts. Similarly, urban women were more likely to believe that breastfeeding reduces allergies, asthma, and eczema ($r_s = 0.21$, $p=0.0016$) and protects children from gastrointestinal problems ($r_s = 0.12$, $p=0.07$). These findings point to potential urban-rural disparities in understanding the impact of breastfeeding on child health, which could be due to differences in education or access to health care information.

- **Maternal Health Awareness:**

Significant correlations were found between beliefs that breastfeeding lowers the risk of breast cancer ($r_s = 0.22$, $p=0.001$) and that colostrums is essential for allergy prevention ($r_s = 0.21$, $p=0.0019$). Urban women were more likely to associate breastfeeding with maternal health benefits, including cancer prevention. These findings highlight the importance of targeted education in rural areas to raise awareness about the dual benefits of breastfeeding for both mother and child.

- **Emotional and Spiritual Development:**

Urban women were more likely to agree that breastfeeding promotes emotional and spiritual development in children ($r_s = 0.21$, $p=0.0017$), indicating greater awareness of its psychological benefits. This belief was also supported by the correlation between location and the perception that breastfeeding boosts a child's intelligence quotient (IQ) ($r_s = 0.12$, $p=0.08$).

- **Misconceptions that Must Be Challenged:**

Certain misconceptions had negligible correlations with location. For example, beliefs that "breastfeeding mothers become de-shaped" ($r_s = 0.016$, $p=0.82$) and that "breastfeeding has nothing to do with a child's immune system" ($r_s = 0.038$, $p=0.57$) were equally distributed in rural and urban populations. This suggests that such myths are common in both settings and will require widespread awareness campaigns to dispel.

- **Formula Feeding and Exclusive Breastfeeding:**

The belief that "formula feeding is as nutritious as breast milk" had a moderate positive correlation ($r_s = 0.21$, $p=0.0016$), with urban women more likely to hold it. However, exclusive breastfeeding for up to six months was not significantly correlated with location ($r_s = 0.10$, $p=0.12$), indicating consistent support in both rural and urban areas.

Attitude and Awareness Question	Location	Response	Percent	Chi-Square p- value
Breastfeeding improves child health.	Rural	Disagree	54.33	0.1393
		Undecided	40.16	0.1393
		Agree	5.51	0.1393
	Urban	Disagree	44.09	0.1393
		Undecided	44.09	0.1393
		Agree	11.83	0.1393
Breastfeeding increases immunity in child	Rural	Disagree	9.45	0.208
		Undecided	36.22	0.208
		Agree	54.33	0.208
	Urban	Disagree	5.38	0.208
		Undecided	29.03	0.208
		Agree	65.59	0.208
Breastfeeding is beneficial for bone development	Rural	Disagree	9.45	0.0155
		Undecided	58.27	0.0155
		Agree	32.28	0.0155
	Urban	Disagree	6.45	0.0155
		Undecided	41.94	0.0155
		Agree	51.61	0.0155
Breastfeeding doesn't protect Premenopausal and post-menopausal cancer	Rural	Disagree	34.65	0.0484
		Undecided	58.27	0.0484
		Agree	7.09	0.0484
	Urban	Disagree	22.58	0.0484
		Undecided	62.37	0.0484
		Agree	15.05	0.0484
Breastfeeding maintains the body temperature of baby	Rural	Disagree	51.97	0.11
		Undecided	40.16	0.11
		Agree	7.87	0.11
	Urban	Disagree	52.69	0.11
		Undecided	31.18	0.11
		Agree	16.13	0.11
Formula feeding is as nutritious as breast milk.	Rural	Disagree	13.39	0.0045
		Undecided	58.27	0.0045
Breast cancer is most treatable when it is detected early	Urban	Agree	28.35	0.0045
		Disagree	3.23	0.0045
		Undecided	51.61	0.0045
	Rural	agree	45.16	0.0045
		disagree	48.82	0.149
		undecided	26.77	0.149
	Urban	agree	24.41	0.149
		disagree	40.86	0.149
		undecided	22.58	0.149
Nutritional needs and intelligence growth are automatically fulfilled by	Rural	agree	36.56	0.149
		disagree	41.73	0.0001
		undecided	42.52	0.0001
		agree	15.75	0.0001

breast milk	Urban	disagree	36.56	0.0001
		undecided	22.58	0.0001
		agree	40.86	0.0001
Breastfeeding controls the gastroenteritis chronic constipation And various types of stomach trouble	Rural	disagree	31.5	0.0724
		undecided	44.09	0.0724
		agree	24.41	0.0724
	Urban	disagree	26.88	0.0724
		undecided	34.41	0.0724
		agree	38.71	0.0724
I.Q found to be greater than those of children who did not enjoy Breastfeeding.	Rural	disagree	45.67	0.212
		Undecided	50.39	0.212
		Agree	3.94	0.212
	Urban	Disagree	34.41	0.212
		Undecided	59.14	0.212
		Agree	6.45	0.212
Childhood diabetes risk becomes less by breast feeding	Rural	Disagree	33.86	0.4982
		Undecided	49.61	0.4982
		Agree	16.54	0.4982
	Urban	Disagree	26.88	0.4982
		Undecided	52.69	0.4982
		Agree	20.43	0.4982
Breast Feeding saves from allergies, asthma and eczema diseases	Rural	Disagree	42.52	0.0072
		Undecided	53.54	0.0072
		Agree	3.94	0.0072
	Urban	Disagree	23.66	0.0072
		Undecided	66.67	0.0072
		Agree	9.68	0.0072
Breastfeeding encourages emotional and spiritual development of children	Rural	Disagree	17.32	0.0018
		Undecided	53.54	0.0018
		Agree	29.13	0.0018
	Urban	Disagree	12.9	0.0018
		Undecided	34.41	0.0018
		Agree	52.69	0.0018
Colostrum is very important for any child because it saves from various allergies	Rural	Disagree	5.51	0.0023
		Undecided	38.58	0.0023
		Agree	55.91	0.0023
	Urban	Disagree	5.38	0.0023
		Undecided	17.2	0.0023
		Agree	77.42	0.0023
Mothers milk act as a boon for newborn baby	Rural	Disagree	3.15	0.0131
		Undecided	46.46	0.0131
		Agree	50.39	0.0131
	Urban	Disagree	1.08	0.0131
		Undecided	29.03	0.0131
		Agree	69.89	0.0131
	Rural	Disagree	3.15	0.3398
		Undecided	22.83	0.3398

Breastfeeding mothers become de-shaped.	Urban	Agree	74.02	0.3398
		Disagree	6.45	0.3398
		Undecided	17.2	0.3398
		Agree	76.34	0.3398
Breastfeeding has nothing to do with the immune system of child.	Rural	Disagree	50.39	0.8261
		Undecided	32.28	0.8261
		Agree	17.32	0.8261
	Urban	Disagree	47.31	0.8261
		Undecided	32.26	0.8261
		Agree	20.43	0.8261
Chances of breast cancer is less in Breastfeeding mother	Rural	Disagree	25.98	0.0033
		Undecided	47.24	0.0033
		Agree	26.77	0.0033
	Urban	Disagree	15.05	0.0033
		Undecided	36.56	0.0033
		Agree	48.39	0.0033
I.Q development has nothing to do with Breast feeding	Rural	Disagree	33.07	0.0139
		Undecided	55.12	0.0139
		Agree	11.81	0.0139
	Urban	Disagree	34.41	0.0139
		Undecided	39.78	0.0139
		Agree	25.81	0.0139
Exclusive breast feeding is not sufficient for the child of an up to 6 months.	Rural	Disagree	46.46	0.2623
		Undecided	35.43	0.2623
		Agree	18.11	0.2623
	Urban	Disagree	35.48	0.2623
		Undecided	41.94	0.2623
		Agree	22.58	0.2623

Table .1.1 Distribution and Association Analysis: Location vs. Breastfeeding Attitudes

The analysis of breastfeeding attitudes and their relationship with location (rural vs. urban) revealed key differences in perceptions, beliefs, and knowledge. These findings, based on Response distributions and chi-square significance tests highlight areas where urban women tend to have greater awareness or differing attitudes compared to rural women.

Key Findings on Child and Maternal Health

Urban women demonstrated a stronger belief in breastfeeding's health benefits. For instance, urban women were significantly more likely to agree that breastfeeding is beneficial for bone development ($p=0.0155$), provides immunity to children ($p=0.208$), and protects against allergies, asthma, and eczema ($p=0.0072$). Additionally, urban women expressed higher agreement that breastfeeding reduces the risk of breast cancer ($p=0.0033$) and that colostrums is vital for protecting against allergies ($p=0.0023$). These results suggest that urban

Rural women, while aware of some benefits, exhibited lower agreement levels for key beliefs. For example, only 24.41% of rural women agreed that "breast cancer is most treatable when detected early" compared to 36.56% of urban women ($p=0.149$). Similarly, fewer rural women believed in breastfeeding's role in fulfilling nutritional needs and promoting intelligence growth ($p=0.0001$).

Urban women showed significantly higher agreement regarding the emotional and spiritual development benefits of breastfeeding ($p=0.0018$) and its role as a boon for newborns ($p=0.0131$). However, certain cultural misconceptions, such as the belief that "breastfeeding mothers become de-shaped," were prevalent across both rural and urban settings, with no significant difference ($p=0.3398$).

Formula Feeding and Exclusive Breastfeeding

The belief that formula feeding is as nutritious as breast milk showed a significant difference ($p=0.0045$), with urban women more likely to agree. However, there was no significant difference in perceptions about the sufficiency of exclusive breastfeeding for children up to six months ($p=0.2623$), with both groups showing moderate agreement.

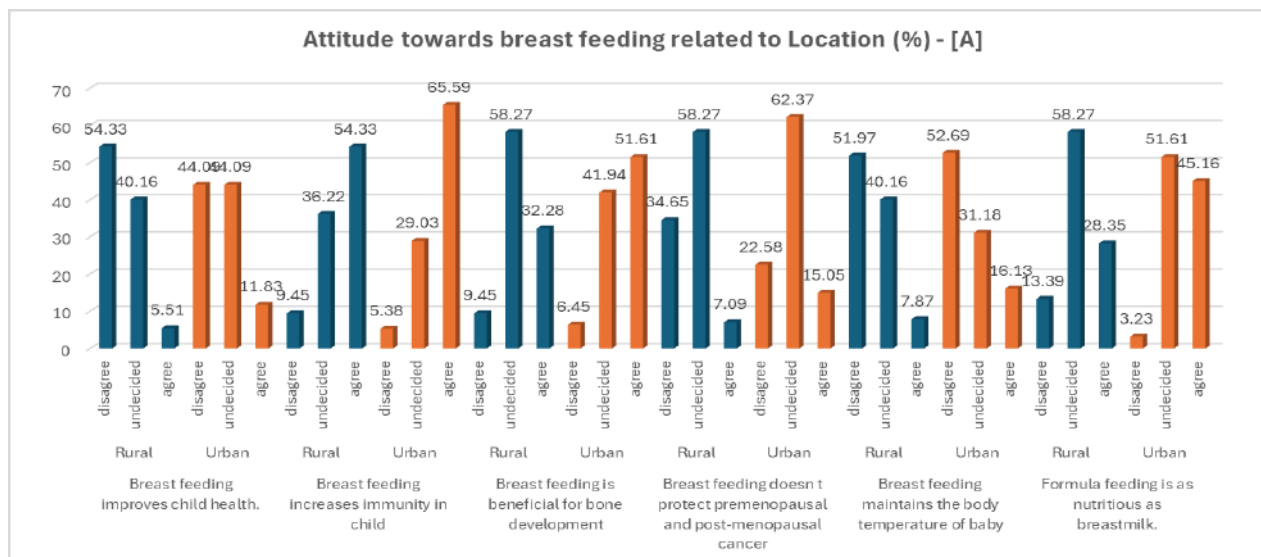


Fig. 1 Attitude towards breastfeeding related to location. (%) –(A)

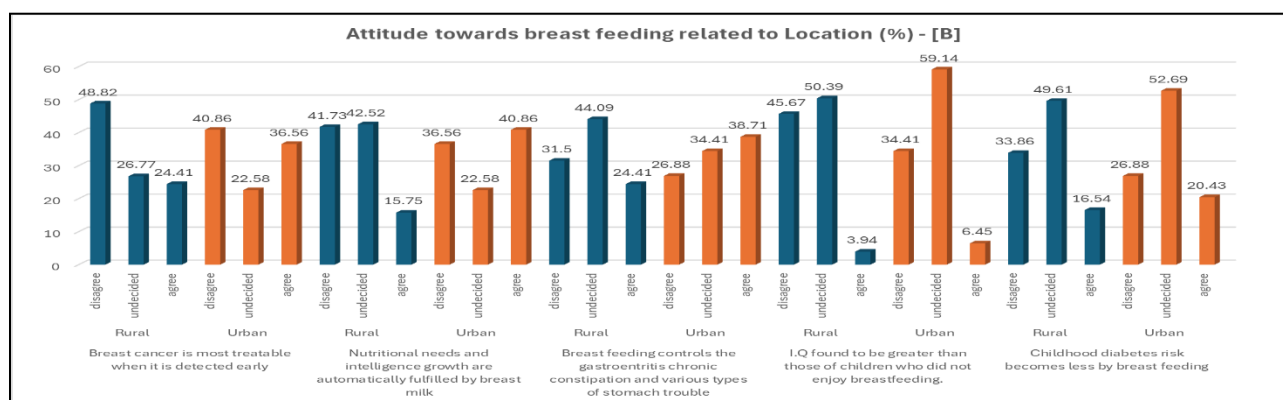


Fig.1.1 Attitude towards breastfeeding related to location (B)

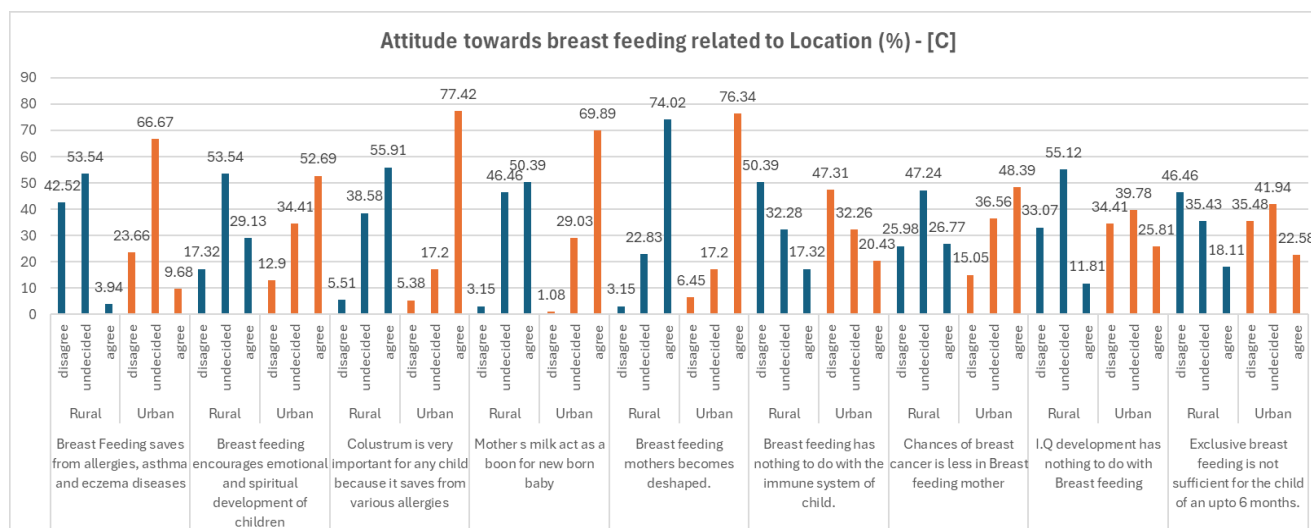


Fig.1.2 Attitude towards Breastfeeding related to location. (%) (C)

6.Discussion-In developing countries, like India, it is very important to increase awareness regarding risk factors of breast cancer which will not only enhance the early detection of breast cancer but also it will help in improving the survival rate of the breast cancer patients. To the best of our knowledge, it was the first study conducted in the Prayagraj district of Uttar Pradesh which primarily focused on the breast feeding attitude in breast cancer patients. Since Breast feeding being the one of the crucial factors in determining that a woman will develop a breast cancer in her lifetime. This study was a descriptive study to assess the attitude towards breastfeeding amongst the breast cancer patients aged between 20 to 70 years attending Regional Cancer Centre for the treatment or follow-up of breast cancer in Prayagraj district of Uttar Pradesh. In this study, proportion of urban breast cancer patients had better awareness of health benefits of breastfeeding. 77.42% of urban women agreed that colostrum is very important for child because it saves from various allergies which were similar to (Sultania, et.al.,2019) Which reported that around 71.4 % considered breast milk as a best food for new born and around 82 % of mothers gave colostrums to their babies. Almost 58 % of urban breast cancer patients were not sure (undecided) that there is a protective effect of breastfeeding to prevent pre-menopausal and post menopausal cancer while 62% of rural breast cancer were undecided about any association of breast cancer and breastfeeding which was similar to the study conducted by (Hoyt-Austin, et.al, 2015-18)in U.S ,which reported that only 38.5% of U.S women were aware that that breastfeeding is associated with reduced breast cancer incidence

Only 24.4% of rural and 36.56 % of urban women agreed that breast cancer is most treatable when detected early which was similar to the review study done by (Gupta, et. al.,2015) regarding awareness of breast cancer in Indian women which highlighted the poor literacy regarding breast cancer and its risk factors irrespective of their socio-economic status. There are many false narratives being developed by marketing companies regarding milk substitutes and formula feeding which negatively impacts the breastfeeding attitude and practices in women. About 28.35% of rural women agree that formula feeding is as nutritious as breast milk and 45.16% of urban women also agreed to this assumption. This is similar to the findings of (Abebe , et. al., 2019) which states that 50 % of the mothers of the urban area agreed that formula feeding ensures optimal health to the finding.

7.Conclusion-The findings indicate a greater alignment among urban women with scientifically validated beliefs regarding the health advantages of breastfeeding. Urban women were more inclined to acknowledge its contribution to enhancing immunity, safeguarding against illnesses, and promoting child development. In contrast, rural women demonstrated reduced levels of agreement and exhibited greater indecision, suggesting a possible deficiency in information access or cultural impediments to acceptance. Prevalent misconceptions regarding breastfeeding, including its effects on physical appearance, were observed in both groups, indicating a necessity for extensive educational initiatives. These findings highlight the necessity of targeted interventions to bridge knowledge gaps, especially in rural regions, to foster informed attitudes and practices regarding breastfeeding. The findings show a clear urban advantage in terms of awareness and positive attitude towards breastfeeding's health benefits, particularly its effects on child immunity, maternal cancer prevention, and emotional development. Urban women appear to have more access to accurate information, most likely due to increased healthcare exposure and education. However, the persistence of misconceptions in both rural and urban areas emphasizes the importance of comprehensive breastfeeding education campaigns that target all geographic settings. These efforts should emphasize breastfeeding's dual benefits for mothers and children, as well as dispel common myths and promote exclusive breastfeeding

REFERENCES:

1. https://www.who.int/health-topics/breastfeeding#tab=tab_1
2. <https://www.who.int/news/item/31-07-2024-on-world-breastfeeding-week--unicef-and-who-call-for-equal-access-to-breastfeeding-support>
3. Ghosh, P., Rohatgi, P., & Bose, K. (2022): Determinants of time-trends in exclusivity and continuation of breastfeeding in India: An investigation from the National Family Health Survey. *Social science & medicine* (1982), 292, 114604.
4. Sharma, M., Anand, A., Goswami, I., & Pradhan, M. R. (2023): Factors associated with delayed initiation and non-exclusive breastfeeding among children in India: evidence from national family health survey 2019-21. *International breastfeeding journal*, 18(1), 28.

5. Vinutha,M. U. , Itagi, S., and Pushpa,K. B.,(2018) : Breastfeeding knowledge, attitude and practices: a comparative study of urban and rural mothers in northern Karnataka, India., *Asian Journal of Home Science*, 13(1): 55–61
6. Pannair PP, et al.(2021): Knowledge, Attitude and Practices of Exclusive Breastfeeding amongst Mothers of Rural Population in Central India: A Cross Sectional Analytical Study. *Ann Med Health Sci Res*.11(S3):176-180.
7. De Silva, M., Senarath, U., Gunatilake, M., & Lokuhetty, D. (2010): Prolonged breastfeeding reduces risk of breast cancer in Sri Lankan women: a case-control study. *Cancer epidemiology*, 34(3), 267–273.
8. Verma A., Dixit, P. (2016): Knowledge and Practices of Exclusive Breastfeeding among Women in Rural Uttar Pradesh. *J Neonatal Biol* 5(3).
9. Zhou, Y., Chen, J., Li, Q., Huang, W., Lan, H., & Jiang, H. (2015): Association between breastfeeding and breast cancer risk: evidence from a meta-analysis. *Breastfeeding medicine : the official journal of the Academy of Breastfeeding Medicine*, 10(3), 175–182.
10. Sultania P, Agrawal NR, Rani A, Dharel D, Charles R, Dudani R.(2019) :Breastfeeding Knowledge and Behavior Among Women Visiting a Tertiary Care Center in India: A Cross-Sectional Survey. *Annals of Global Health*, 85(1),64.
11. Hoyt-Austin, A., Dove, M. S., Abrahão, R., Kair, L. R., & Schwarz, E. B. (2020). Awareness That Breastfeeding Reduces Breast Cancer Risk: 2015-2017 National Survey of Family Growth. *Obstetrics and gynecology*, 136(6), 1154–1156. <https://doi.org/10.1097/AOG.0000000000004162>
12. Gupta, A., Shridhar, K., & Dhillon, P. K. (2015). A review of breast cancer awareness among women in India: Cancer literate or awareness deficit?. *European journal of cancer (Oxford, England : 1990)*, 51(14), 2058–2066.
13. Abebe, L., Aman, M., Asfaw, S. et al(2019). Formula-feeding practice and associated factors among urban and rural mothers with infants 0–6 months of age: a comparative study in Jimma zone Western Ethiopia. *BMC Pediatr* 19, 408.