

# Breastfeeding Practices and Knowledge in Semi urban Area of Pakistan

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## Abstract

**Objective:** To assess the optimal breastfeeding practices and its knowledge in women of semi-urban areas of Pakistan.

**Methods:** This cross-sectional descriptive study was carried out at the Pediatrics outpatient department. The data was collected in three months, from the 9<sup>th</sup> of March to the 6<sup>th</sup> of June 2021. Two hundred (200) mothers of children less than two years of age were included in the study. A pre-structured questionnaire was used to interview mothers and readings were recorded. Demographic variables and mothers' knowledge and practices of breastfeeding were evaluated. Statistical analysis were performed using SPSS version 23.

**Results:** The majority of mothers belonged to the age group 20-30 years, were educated to various grades of schooling, underwent caesarean section, had children less than 1 year of age, and came from families earning less than Pakistani Rupees 20,000 per month. The majority also thought to initiate breastfeeding after one hour of birth, were aware of it to be the first thing offered to neonates after birth, and knew beneficial effects of breastfeeding on maternal health. Though the majority of the mothers practiced prelacteal feed and didn't exclusively breastfeed their child but practiced awakening their child for feeding if interval exceeded two hours. Most common prelacteal feed was honey, and bottle feeding was the most preferred mode of feeding the infant. Exclusive breastfeeding was found to be significantly associated with the mode of delivery ( $p=0.044$ ). No statistically significant association was found between exclusive breastfeeding with early initiation of feeding, maternal age, and maternal education.

**Conclusion:** The present study reveals that despite awareness, 'optimal breastfeeding' is not practiced adequately in semi-urban areas of Pakistan. Mothers should be timely and properly counseled by healthcare professionals for breastfeeding to reduce morbidity and mortality infants.

**Keywords:** Caesarean section, prelacteal feed, optimal breast feeding.

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## Introduction

Breastfeeding is essential for an infant's growth, development, and building strong immunity. It promotes the overall well-being of a child thus reducing childhood mortality and morbidity. Breastfeeding reduces the risk of common infectious diseases

and malnutrition which are the leading causes of infant and under 5 mortalities in developing countries<sup>1</sup>. According to UNICEF statistics, under 5 years mortality rate per 1000 live births is 74.9, infant mortality rate is 61 /1000 live births and neo-natal mortality is 44/1000 live births<sup>2</sup>.

According to WHO, optimal breastfeeding incorporates early initiation of breast feeding, exclusive breastfeeding for infants 0-6 months of age, continue breastfeeding till 2 years of age and increase breastfeeding frequency during illness<sup>3</sup>. Early initiation of breastfeeding (within one hour of birth) ensures that the infant receives the colostrum. Colostrum is the first milk produced by mother's mammary glands after baby's birth. Colostrum is rich in nutrients and protective factors. It is rich in antibodies

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ies, low in fat, and contains a high amount of carbohydrates and proteins. Early initiation of breast feeding has various health benefits like reduced risk of diarrhea, increased ability to defend against infections and high survival rate of children. It also helps develop an emotional bond between a mother and her baby. Maternal lack of knowledge regarding the benefits of colostrum and other multiple factors like prelacteal feed, cesarean section and lack of counseling by health care personnel were found to be the reason of delay initiation of breast feeding. Prelacteal feeds have become a cultural norm in Pakistan. Various factors are involved in prelacteal feeding practices such as religious and family traditions or myths about colostrum. Exclusive breast feeding (for the first 6 months of life) as recommended by WHO will not only protect against infectious diseases but also have longterm benefits for mother and child health like reducing the risk of being overweight and obese in childhood. To meet the evolving nutritional requirements, from 6 months onwards, infants should be provided with complementary feeds which are nutritionally adequate and safe, while continuing breast feed up to 2 years of age<sup>2</sup>.

Breastfeeding has an important role in an infant's growth and development. It is the most effective tool for reducing mortality in infants worldwide. The fact of optimal breastfeeding is widely accepted in Pakistan but woefully practices seem to be limited as shown by statistics of UNICEF which state the rate to be 19.6% for early initiation of breast feeding, 47.5% for exclusive breast feeding and 53.4% for continued breast feeding<sup>2</sup>.

In a study conducted by Zakar R and his colleagues, many babies received prelacteal feed with most common prelacteal feeds like milk other than breast milk, honey, sugar, arq, etc<sup>4</sup>.

Not only lack of early initiation of breastfeeding and exclusive breastfeeding but also some other unsafe and unhealthy practices are deeply rooted in our culture like wasting the colostrum, and use of prelacteal and top feed. By diluting cow/buffalo milk or preparing hypo-osmolar formula milk (adding more water to milk), the vitamins, minerals, and ca-

loric requirements of infants can't be fulfilled. Buffalo/cow milk also leads to iron deficiency anemia in infants. Similarly, giving hyperosmolar formula milk (adding more formula milk to water) to infants' results in the development of diarrhea, hypernatremic dehydration, intracranial hemorrhage, and seizures<sup>5</sup>. There is also a maternal lack of knowledge about the benefits of breast feeding both for mother and child. Different studies conducted in various areas of Pakistan showed that breastfeeding knowledge is not optimal. A study conducted in tertiary care hospital in Lahore showed that 90% of the mothers were aware of the benefits of colostrum and 97% of them were aware of the benefits of exclusive breast feeding for infant<sup>6</sup>. A study conducted in Rajanpur, province Punjab depicted the awareness that breastfeeding is beneficial for newborn growth, but exclusive breastfeeding was not practiced due to cultural norm and colostrum is also considered too heavy for small baby<sup>4</sup>.

- Sabin et al found that the practice of exclusive breastfeeding was significantly low in women who were doctors and bankers, those who had poor support from their families, and those who had long working hours. Exclusive breastfeeding was found to be highly prevalent in women who were facilitated by their organizations in terms of provision of maternity leaves, decreased working hours, and daycare facility for their children<sup>7</sup>.

Another reason to deprive an infant of exclusive breastfeed is gender biasedness in our country. According to a study conducted in Mexico by Vasquez et al, the privilege of full breastfeeding is 4 times higher in males than for female infants<sup>8</sup>. On contrary Bangladesh is amongst those countries where gender inequality has decreased, and early initiation of breastfeed is being carried out for both male and female infants. This indicates that Bangladesh has achieved the sustainable development goal 5 already<sup>9</sup>.

A study conducted at Dammam and Riyadh concluded that mothers who had experience feeding their babies previously initiated breast feeding earlier and continued it for a longer period, adhering to religious norms. In contrast, younger

mothers thought breast feeding to be a threat to their convenience and physical appearance<sup>10</sup>. According to a report given by WHO, formula milk companies can send personalized promotions to pregnant women and mothers through apps, social media clubs/ groups, etc. which are not recognized as advertising, unfortunately. This marketing reinforces their myths regarding breastfeeding and shatters their confidence and negatively influences their ability to breastfeed<sup>11</sup>. There is a marked discrepancy between knowledge and practices of breast feeding in both urban and semi-urban areas of Pakistan.

Given the aforementioned benefits of breastfeeding, it is essential to find out more information regarding the perception, attitude, knowledge, and poor practices of breastfeeding in Pakistan. Modern civilization has had a negative effect on this practice worldwide. Proportion of working mothers has increased, and consequently, they are under physical and psychological stress, which is one of the main factors to abandon breastfeeding. The developed world has launched substantial awareness campaigns to overcome this problem and make mothers breastfeed despite the pressures of today's social setup. Very few studies in Pakistan have been carried out to assess the population for breastfeeding practices in semi-urban areas, but none on the effect of awareness on these practices. The aim of this study is to understand the maternal knowledge and practices regarding breastfeeding practices in semi-urban area of Lahore so that proper counseling sessions for mothers are provided on time. As a result, neonatal and infant health can be improved.

### Subjects and Methods

A descriptive study was conducted in Paediatrics outpatient department (OPD) for a period of 3 months. This is a tertiary care teaching hospital located in the suburbs of Lahore and provides services to the population of its semi-urban catchment area. The sample size of 200 was calculated by using the Raosoft calculator, with a confidence interval of 90% and margin of error of 6%. Mothers of children less than 2 years of age

were included in the study (to eliminate the recall bias) and interviewed regarding knowledge and practices of breastfeeding using a prestructured questionnaire. Mothers of adopted children and of those who needed admission to nursery just after birth due to prematurity, sepsis, hypoxic-ischemic encephalopathy, meconium aspiration syndrome, and congenital heart disease were excluded from the study. A total of 200 mothers fulfilling the inclusion criteria attending OPD of Pediatric Medicine at Central Park Medical College were enrolled in the study using nonprobability consecutive sampling technique. Informed verbal consent was taken from participants and their confidentiality was maintained. Various demographic variables taken into account include maternal age, maternal education, mode of delivery, age of the child, and family monthly income. Information regarding knowledge and practices of breastfeeding were the variables of our main concern. Statistical analysis was performed using SPSS version 23. Descriptive analyses were represented in frequencies, and percentages whereas associations were determined by Pearson Chi-square test considering p-value of <0.05 as significant.

### Results

The total sample size comprised 200 mothers of children aged less than 2 years. The demographic characteristics maternal age, maternal education, mode of delivery, and age of the child, were evaluated/analyzed as shown in Table 1. Of the mothers included, the predominant majority i.e., 73% (n= 146) were in the 3<sup>rd</sup> decade of their life, followed by those in the 4<sup>th</sup> decade who comprised 23.5% (n= 47). Around the 2/3<sup>rd</sup> (n= 132) of the mothers were educated to different grades of schooling, whereas around the 1/3<sup>rd</sup> (n= 68) never received any formal schooling. The Majority i.e., 58% (n=116) of the mothers underwent Caesarean section, and 42% (n=84) delivered through spontaneous vaginal delivery. Among the mothers, 68 % (n= 136) had infants i.e., less than 1 year of age, and 32% (n= 64) had children between 1-2 years of age. The Majority of the mothers belong to families earning less than PKRs 20,000 per month. The details of demographic characteristics are shown in (Table 1).

**Table 1.** Maternal and child demographic characteristics

Variables	Frequency (n=200)	Percentage(%)
<b>Maternal age (years)</b>	· <20	3.5
	· 20-30	73
	· 30-40	23.5
<b>Maternal education</b>	· No formal education	34.0
	· Grade 5	15.0
	· Matriculation	18.5
	· Intermediate	15.0
	· Graduation	13.5
	· Post-graduation	04
<b>Mode of delivery</b>	· SVD	42
	· C section	58
<b>Age of child</b>	· <1 year	68
	· 1-2 year	32
<b>Family income per month(PKR)</b>	· <20000	51.5
	· 20000-30000	30
	· 30000-40000	10.5
	· >40000	8

The details of mothers' knowledge about breastfeeding practices and benefits are shown in Table 2. Although 63% (n= 126) of the mothers knew that the first thing to offer neonate should be breast milk, only 35.5% (n= 71) knew that breastfeeding is to be initiated within the 1<sup>st</sup> hour of life. As many as 78% (n=156) of the mothers knew maternal benefits of breastfeeding, and even more i.e., 93.5% (n= 187) believed that maternal diet affects breast milk production, quality, and composition. The Concept of 'rooming in' was known to 94.5 % of mothers.

**Table 2.** Maternal knowledge of breast feeding

Variables	Frequency	Percentage(%) (n=200)
<b>When should you initiate breast feed?</b>	· Within 1 hour of birth	35.5
	· >1 hour of birth	55.5
	· No knowledge	9
<b>What should be the first thing to offer the neonate?</b>	· Breast feed (colostrum)	63
	· Honey	9.5
	· Water	0.5
	· Formula feed	3.5
	· Others (arq/ghutti etc)	23.5
<b>Is Breast feeding beneficial for maternal health?</b>	· Yes	78
	· No	19
	· No knowledge	3
<b>Does maternal diet affect breast feeding?</b>	· Yes	93.5
	· No	6.5
<b>Do you have the concept of rooming in'?</b>	· Yes	94.5
	· No	5.5

Data on the breast-feeding practices of the included mothers is shown in Table 3. As many as 90.5% (n= 181) of the mothers did not initiate breast feeding within 1<sup>st</sup> hour of birth compared to only 7% (n= 14) who did. Even though 63% (n= 126) of the mothers knew that the first thing offered to the newborn should be breast milk, only 21.5% (n= 43) of the mothers offered breast milk (colostrum) as first feed whereas 82.5% (n= 157) of the mothers offered prelacteal feeds to the newborns. Amongst prelacteal feeds honey ranked first (38%) followed by formula milk (29.9%) while others like ghutti, arq, etc accounted for the rest (31.8%). The proportion of mothers who exclusively breastfed their child was 26% (n= 52) as compared to 74% (n=148) who did not. Feeds other than breast milk, include formula milk (46.5%), cow's milk (20.5%), and water (14%). The modes of giving these feeds were bottle 68% (n= 136), spoon 9.5% (n= 19), and cup 4% (n= 8). Of the included mothers, 82% would wake their children for feeding in case the duration exceeds 2 hours while 18% would only feed when the child is awake. The data depicts an astounding disparity between knowledge and practices of breast feeding (Table 3).

**Table 3.** Maternal practices of breast feeding

Variables		Frequency	Percentage(%) (n=200)
<b>initiate the first feed to your baby?</b>	· >1 hour after birth	181	90.5
	· Not breastfed	5	2.5
<b>What did you offer your baby as first feed?</b>	· Breast feed (colostrum)	43	21.5
	· Formula feed	47	23.5
	· Cow's milk	3	1.5
	· Honey	60	30
	· Arq	3	1.5
	· Ghutti	16	8
	· Dates	5	2.5
	· Water	17	8.5
	· Tea	6	3
<b>Do you breast feed exclusively?</b>	· Yes	52	26
	· No	148	74
<b>Do you wake your child after 2 hours of feeding</b>	· Yes	164	82
	· No	36	18
<b>Feed other than breast feed</b>	· Formula feed	93	46.5
	· Cow's milk	41	20.5
	· Water	28	14.0
	· None	38	19.0
<b>Mode of other feeds</b>	· Bottle	138	68.0
	· Spoon	19	9.5
	· Cup	08	4.0
	· none	37	18.5

The Pearson chi-square test was applied to find associations of the variables and P-value <0.05 was considered statistically significant. Statistical analysis revealed a significant association ( $p=0.044$ ) between exclusive breast feeding and mode of delivery i.e., C-section. However, no significant association of exclusive breast feeding was found with other variables like maternal age ( $p=0.328$ ), maternal education ( $p=0.615$ ), and early initiation of breastfeeding ( $p=0.873$ ).

### Discussion

In our study, 63% of the mothers were aware of the health benefits of colostrum. Studies conducted by Rehman et al. in Khyber Pakhtunkhwa (KPK) and Sohail et al. in Sindh have shown this awareness in 29% and 70.1% of mothers respectively<sup>12,13</sup>. Our results are comparable to the resu-

Its are comparable to the results of the study conducted in Sindh which shows a much higher level of this awareness than shown in the study conducted at KPK.

Contrary to the fact that the majority (63%) of the mothers were aware of colostrum benefits, only a small proportion (21.5%) offered it as the 1<sup>st</sup> feed to their newborns. This finding contrasts with the results given by studies conducted in other parts of Pakistan showing a higher fraction (72.1%)<sup>13</sup> and (41.8%)<sup>14</sup> of mothers practicing colostrum as first feed. The difference in results may be due to the fact that a higher number of mothers enrolled in our study had C-section and consequently could not manage colostrum as first feed due to the effect of anesthesia, pain, or lack of family support.

A high percentage (78.5%) of mothers enrolled in our study gave prelacteal feeds to their children which is comparable to the results of study conducted by Jimoh et al<sup>15</sup>. However, our results are not comparable with those of other studies showing the practice of prelacteal feed to be as low as 50% and 58.2% in Pakistan<sup>6, 14</sup>, and 40.1% in other countries<sup>16</sup>. Prelacteal feeds are offered to newborns due to myths associated with colostrum that it is non-nutritious, non-milk, causes diarrhea etc<sup>13</sup>.

Though 63% of women were aware of the benefits of exclusive breastfeeding, it was practiced by only 26% of the mothers. In other areas of Pakistan, exclusive breastfeeding was offered by 8.4-<sup>17</sup> and 40.8%<sup>18</sup> of mothers. Our results fall in between the results from other areas of Pakistan. The practice of exclusive breastfeeding is very low in Pakistan as compared to other parts of the world e.g., it was reported to be 71% by Cascone et al<sup>19</sup>. The discrepancy between knowledge and practices of breastfeeding seems to be due to marketing and easy availability of formula feeds, increasing number of working ladies, less or no family or community support, poor maternal health, low socioeconomic status, and cultural beliefs and myths.

In our study, 35.5% of mothers had knowledge to commence breastfeeding within the 1<sup>st</sup> hour of birth. The results are comparable to those of Akinyinka et al<sup>20</sup> showing 41.4% of mothers are aware of this fact. Nonetheless, initiation of breast feeding within the 1<sup>st</sup> hour of life was done by only 7% of mothers in our study. Other researchers found that 23% to 56.5% of mothers started breast feeding within the 1<sup>st</sup> hour of birth<sup>13,20,21</sup>. The reason for the low percentage of early initiation of breastfeeding in our study seems to be the same as for not giving colostrum as the first feed i.e., C-section being an obstacle to the practice.

Mode of delivery is a factor proven to affect exclusive breastfeeding<sup>22</sup>. Our results showed an association of C-section with breastfeeding ( $p=0.0-4$ ) in contrast to other studies showing an association of SVD with breastfeeding<sup>15,22</sup>. The reason seems to be the fair counseling of mothers in a hospital setting where they underwent C-section. On the other hand, ladies delivered through SVD in various settings outside the hospital, could not get proper counseling regarding breastfeeding.

It is important to support mothers in taking care of and feeding their infants at their workplaces, in families, and at the community level. Timely and proper counseling, regarding breastfeeding should be provided by obstetricians, neonatologists, hospital personnel, trained birth attendant, dai, etc. With good awareness, education, and implementation we can reduce the infant mortality and morbidity. Strategies should be made by the government, to promote breast feeding in all non-working and working mothers, so that infant morbidity and mortality can be decreased. Also, continuous evaluation of the implementation of these strategies at a community level and health care system during antenatal visits and postnatal follow-ups can improve the exclusive breast-feeding outcome. Further studies are required to elucidate the effect of personnel and delivery settings on breast feeding practices.

## Conclusion

Optimal breast feeding is not being practiced in semi-urban areas of Lahore. Adequate and appropriate knowledge regarding breast feeding is a major determinant and prerequisite for developing good breast-feeding practices. The practice of feeding colostrum as 1<sup>st</sup> feed is almost negligible while that of exclusive breastfeeding is also as low as 26% of the mothers. It is also found that caesarean section is an associated factor for poor breast-feeding practices.

## Conflict of Interest

Authors have no conflict of interest and no grant/funding from any organization

## References

1. Victora CG, Bahl R, Barros AJ, França GV, Horton S, Krusevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *The Lancet*. 2016 Jan 30;387(10017):475-90. [DOI: 10.0116/S0140-6736(15)01024-7]
2. UNICEF data: <https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/>. 2021 [Online]. Available from: <https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/>. Accessed on: 6<sup>th</sup> November 2022.
3. Martin CR, Ling PR, Blackburn GL. Review of infant feeding: key features of breast milk and infant formula. *Nutrients*. 2016 May;8(5):279. [DOI: 10.3390/nu8050279]
4. Zakar R, Zakar MZ, Zaheer L, Fischer F. Exploring parental perceptions and knowledge regarding breastfeeding practices in Rajanpur, Punjab Province, Pakistan. *International breastfeeding journal*. 2018 Dec;13(1):24. [DOI: 10.1186/s13006-018-0171-z]
5. Leung C, Chang WC, Yeh SJ. Hypernatremic dehydration due to concentrated infant formula: report of two cases. *Pediatr Neonatol*. 2009 Apr;50(2):70-3. [DOI: 10.1016/S1875-9572(09) 60 036-X]
6. Jamil M, Khanum A, Omer MT, Hamid MH. Knowledge, Attitude and Breastfeeding practices of Mothers of Infants: An Experience from a Tertiary Care Hospital in Lahore [online]. *Proceedings SZPGMI* [Online]. 2018;32(3):1-7. Available from: <https://proceedings-szmc.org.pk/public/old-doc/2018/Knowledge-Attitude-and-Breastfeeding-practices-of-Mothers-of-Infants-An-Experience-from-a-Tertiary-Care-Hospital-in-Lahore.1.pdf>. Accessed on: 6<sup>th</sup> November 2022

7. Sabin A, Manzur F, Adil S. Exclusive breastfeeding practices in working women of Pakistan: A cross sectional study. *Pakistan journal of medical sciences* vol. 33, 5 (2017): 1148-1155. [DOI: 10.12 669/pjms.335.12827]
8. Vasquez-Garibay EM, Guzmán-Mercado E, Larrosa Haro A, Muñoz-Esparza NC. Is there gender discrimination in full breastfeeding in Mexico? *Nutr Hosp*. 2019 Jul 1;36(3):545-551. [DOI: 10.20960/nh.23711]
9. Sen, K.K., Mallick, T.S. & Bari, W. Gender inequality in early initiation of breastfeeding in Bangladesh: a trend analysis. *Int Breastfeed J* 15, 18 (2020). [DOI: 10.1186/s13006-020-00259-y.]
10. Raheel, H, & Tharkar, S. (2018). Why mothers are not exclusively breast feeding their babies till 6 months of age? Knowledge and practices data from two large cities of the Kingdom of Saudi Arabia. *Sudanese journal of paediatrics*, 18(1), 28–38. [DOI: 10.24911/SJP.2018.1.5]
11. WHO Data: <https://www.who.int/news/item/28-04-2022-who-reveals-shocking-extent-of-exploitative-formula-milk-marketing> [Online]. Accessed on: 8<sup>th</sup> November 2022.
12. Rehman R, Malik FR, Sabiha ZUA, Rehman Z. Awareness of mothers regarding duration and benefits of breast feeding[online]- *Gomal Journal of Med. Sciences* [Online]. Vol 15(2):78-82. Available from: <https://www.tehqeegat.com/downloadpdf/28046>. Accessed on: 8<sup>th</sup> November 2022.
13. Sohail J, Khaliq A. Knowledge, attitude and practice of mothers regarding colostrum feeding to newborns in rural Pakistan: a cross-sectional study. *Khyber Medical University Journal* [Online]. 2017; 9(4):192-6 Available from: <https://www.km-uj.kmu.edu.pk/article/view/17517>. Accessed on: 8<sup>th</sup> November 2022.
14. Iqbal SM, Afzal MF, Azhar IA, Sultan MA. First feed in newborn: are we following WHO recommendations?. *Annals of King Edward Medical University*. 2010;16(4):229. [DOI: <https://doi.org/10.21649/akemu.v16i4.234>]
15. Jimoh AO, Adaji S, Adelaiye H, Olorukooba AA, Garba C, Mfuh AL et al. Factors associated with prelacteal feeding practices in a rural northern Nigerian setting[online]. *South African Journal of Clinical Nutrition*. 2018; 31(2):37–42. Available from: <https://www.tandfonline.com/doi/full/10.1080/16070658.2017.1359391>. Accessed on: 8<sup>th</sup> November 2022.
16. Roy MP, Mohan U, Singh SK, Singh VK, Srivastava AK. Determinants of prelacteal feeding in rural northern India[online]. *Int J Prev Med [Online]*. 2014; 5(5):658-663. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4050689/>. Accessed on: 8<sup>th</sup> November 2022/
17. Memon S, Shaikh S, Kousar T, Memon Y, Rubina. Assessment of infant feeding practices at a tertiary care hospital[online]. *JPMA [Online]*. Dec 2010; 60(12). Available from: <https://pubmed.ncbi.nlm.nih.gov/21381553/>. Accessed on: 8<sup>th</sup> November 2022.
18. Amir Amin. Difference in breast feeding practices among urban and rural mothers in Lahore, Pakistan. *Texila Int J of Nursing [Online]*. Dec 2016; 2(2). Available from: <https://www.texilajournal.com/nursing/article/619-difference-in-breastfeeding>. Accessed on: 8<sup>th</sup> November 2022.
19. Cascone D, Tomassoni D, Napolitano F, Di Giuseppe G. Evaluation of Knowledge, Attitudes, and Practices about Exclusive Breastfeeding among Women in Italy. *Int J Environ Res Public Health*. 2019 Jun 14;16(12):2118. [DOI: 10.3390/ijerph 16 122118]
20. Akinyinka MR, Olatona FA, Oluwole EO. Breastfeeding Knowledge and Practices among Mothers of Children under 2 Years of Age Living in a Military Barrack in Southwest Nigeria[online]. *International Journal of MCH and AIDS*. 2016; 5(1):1-13. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5005982/>. Accessed on: 8<sup>th</sup> November 2022.
21. Ahmed, A.E., Salih, O.A. Determinants of the early initiation of breastfeeding in the Kingdom of Saudi Arabia. *Int Breastfeed J* 14, 13 (2019). [DOI: 10.1186/s13006-019-0207-z]
22. Yeboah, J.Y., Forkuor, D. & Agyemang-Duah W. Exclusive breastfeeding practices and associated factors among lactating mothers of infants aged 6–24 months in the Kumasi Metropolis, Ghana. *BMC Res Notes* 12, 689 (2019). [DOI: 10.1186/s13104-019-4723-0]