

Assess knowledge of lactating mothers regarding breastfeeding practices in a tertiary care hospital, Faisalabad.

¹ Dr Sana liaquat, ² Dr Naseem Qauser

¹Charge Nurse of Pediatric Department at Madinah Teaching Hospital, Faisalabad, Pakistan.

² Staff Nurse at ICU at Madinah Teaching Hospital Faisalabad, Pakistan.

Email - ¹Sanaliaqat134@gmail.com

Abstract: *Background:* Appropriate and timely breastfeeding practices obviously improve lifelong health outcomes for newborns, children, and mothers. Exclusive breastfeeding is reported to be widely practiced in Pakistan, and important progress has been made toward achieving improved child health outcomes, but newborn mortality has been slow to reduce and breastfeeding practices remain suboptimal.

Methods: A community based pre-post quasi experimental research design was utilized to achieve the aim of this study because this study design was best for our study. Data was directly collected from participants by using structured questionnaire.

Results: The results revealed that knowledge and practice gaps in behavior that likely subsidize to breastfeeding obstacle, particularly in the areas of infant latch, milk production, feeding frequency, and the use of breast milk substitutes. The predominant theme identified in the research gap was a dearth of detailed information, guidance, and counseling for mothers beyond the message to start breastfeeding within first hour of life.

Conclusion: Future newborn endurance interventions and postnatal care counseling in this area must go beyond the initiation of breastfeeding. To achieve further impact, it will be necessary to disseminate comprehensive and locally appropriate information on breastfeeding practices and to improve counseling in order to strengthen successful breastfeeding and to contribute to population-level health gains.

Key Words: Breastfeeding, health education, lactation, behavior change, new-born.

1. INTRODUCTION:

Breastfeeding is considered as the optimal source of nutrition for infants. Breastfeeding has numerous benedictions for both mothers and children. It offers pivotal protection against infectious morbidity and fatality in children^[1]. Scaling up breastfeeding to near global levels could preclude up to an estimated 13.8% of deaths in children younger than 24 months each year^[2]. The burden of suboptimal breastfeeding improperly influence low and middle income countries^[3]. Approximately, one half of infants born in LMICs are bringing to the breast within first hour after birth as recommended by WHO^[4].

Delayed breastfeeding inauguration increases the risk of neonatal mortality^[5]. Both prelacteal feeding and the withholding of colostrum are recognized to have detrimental effect on later breastfeeding practices^[6]. The intrapartum and immediate post-natal period is a central window of opportunity for improving optimal breastfeeding practices^[7]. Childbirth care is likely to influence breastfeeding practices through the provision of applicable advice support and through the facilitation of practices known to be conducive to breastfeeding^[8]. Any potential consequences of delivery care on breastfeeding practices is most likely to be observed for early breastfeeding outcomes^[9].

Place of childbirth has been also linked to quality of care indicators among women which is optimal breastfeeding^[10]. Improved of trends of breastfeeding behavior according to delivery setting should help inform strategies for promoting optimal breastfeeding^[11]. In Ethiopia, the prevalence of EBF has shown a variation from 36 % in Northwest Ethiopia to 82 % in Oromia region. In Tanzania different studies revealed that EBF prevalence ranging from 20 % in Kilimanjaro region, 25 % in Tanga region to 58 % in Kigoma. The prevalence of EBF in Tanzania has been remodeling over the years from 26 % in 1991-92, 41% in 2004-05, 50 % in 2010 and 59 % in 2015-2016^[12].

Literature revealed that numerous factors influence a mother's decision to breastfeed include beliefs about breastfeeding, breastfeeding support, perception of cultural norms, economic factors and knowledge regarding infant nutrition^[13]. In Australia, few studies have explored regarding the attitudes and beliefs towards breastfeeding of refugee women as they negotiate child-rearing in their adopted nation^[14].

Studies reported that in Pakistan, the practice of prelacteal feeds to neonates increased from 68% of all births in 2007 to 76% in 2018. The lowest prevalence of early initiation of breastfeeding and highest rate of non-exclusive

breastfeeding in South Asia due to various culture-specific prelacteal practices and social norms is reported. The immediate priority for nursing mothers in Pakistan is that the first feed of neonates should be honey, rosewater, or goat milk etc. Due to these reasons Pakistani neonates are at a greater risk for morbidities and mortality associated with prelacteal and delayed breastfeeding than other LMICs^[15].

1.1 AIM

To evaluate practices of lactating mothers regarding breastfeeding & the factors that prevents them from adopting such practices.

1.2 RESEARCH QUESTIONS

- What is the knowledge of mothers regarding breastfeeding?
- What are the factors affecting on breastfeeding practices?

2. MATERIALS & METHODS:

Permission was taken from AMS for conducting research. Written consent was taken from participants to get permission to be a part of our research. A community based pre-post quasi experimental research design was utilized to achieve the aim of this study because this study design was best for our study. This study was conducted at tertiary care hospital, Faisalabad, Pakistan. This study was commenced from August 2020 to October 2020. Data was directly collected from participants by using structured questionnaire. Based on total target population, sample size was calculated by using Raosoft calculator which was 138 by having margin error =5%, confidence interval =95%. A non-probability convenience sampling technique was used. This study included lactating women between the 18 to 45 years of age. Those women who have no kids, menopause, unmarried and mental disorders etc was excluded from the study. Self-Structured questionnaire was used as a tool for data collection. It was initially developed in English and then translated into Urdu. The data collection tool included questions about mother's demographic characteristics, knowledge, practices to evaluate the feeding practices of the participants. Data analysis was done by using the software SPSS (Statistical Package for the Social Sciences) version 20. Descriptive and inferential statistics was calculated, such as mean, median, mode, standard deviation and percentage. Paired sample t test was used for comparison of pre and post knowledge awareness about breakfast

3. RESULTS:

It shows the demographic data of participants. Socio-demographic data consist of 6 questions. In these 14(10.0%) participants were belong to age group of 18-25 years ,54(38.6%) participants were belongs to age group of 26-33 years ,54(38.6%) participants were belongs to age group of 34-41 and 16(11.4%) participants were belongs to age group of more than 41 year. All participants were married female in which 110(78.6%) were housewife and 22(15.7%) were worker. 25(41.0%) participants and 6(4.3%) were students, no formal educational status 11(7.9%), primary 38(27.1%), middle 43(30.7%), matric 28(20.0%), intermediate 12(8.6%) and graduate participants were 6(4.3%).The frequency of total number of children of participants who have (1-2) child are 26(18.6%), who had (3-4) are 101(72.1) and who have had more than 4 children 11(7.9%).The household income status of participants who have (10000-20000/Rs.) is 12(8.6%),who had (21000-30000 /Rs.) is 88(62.9%),who have (31000-40000/Rs.) is 31(22.1%) and who had more than 410000/Rs. is 7(5.0%) were participated (table:-1). It shows the knowledge of the married women regarding breastfeeding practices in Madinah Teaching Hospital (MTH) Faisalabad. Overall knowledge showed that breastfeeding practices of married women were insufficient. 43(30.7 %) women were aware about breastfeeding methods and 95(67.9%) participants were not aware. Only 56(40.0%) women were aware about advantages of breastfeeding and 81(57.9%) were not aware about benediction breastfeeding. The frequency of participants 19(13.6%) who were aware about benefits of initiative breast milk.51 (36.4%) participants had knowledge regarding standard duration of breastfeeding. Significant difference was founded after giving knowledge to married women regarding breastfeeding practices with p-values less than .05. (Table:-2). It showed that practice of participants regarding breastfeeding practices was low. 59(42.1%) women experienced breastfeeding and 79(56.4%) participants had not experienced breastfeeding in their lives. 122(87.1%) participants had not experienced and 16(11.4%) women had experienced breastfeeding problems.13(9.3%)women experienced and 125(89.3%) women had not experienced that breastfeeding can reduce chances of breast cancer. 14(10.0%) participants experienced and 124(88.6%) had not experienced that breastfeeding acts like birth spacer.28(20.0%) participants experienced and 110(78.6%) had not experienced that breastfeeding helps to attain pre-pregnancy weight. Majority of participants previously experienced disadvantages of formula feed. Significant difference was founded averages of practices of the married women regarding breastfeeding methods with p-values less than .05. (table:-3)

Table 1. Socio-demographic characteristics of participant

Variables	Freq (n)	Percentages(n)%
AGE		
18 -25 years	14	10.0
26 -33 years	54	38.6
34 - 41 years	54	38.6
>41 years	16	11.4
Total	138	100
Education		
No formal education	11	7.9
Primary	38	27.1
Middle	43	30.7
Matric	28	20.0
Intermediate	12	8.6
Graduation	6	4.3
occupation		
Student	6	4.3
House wife	110	78.6
Salaried worker	22	15.7
Children		
1-2	26	18.6
3-4	101	72.1
More than 4	11	7.9
Household income		
10000-20000 /Rs	12	8.6
21000-30000/Rs	88	62.9
31000-40000/Rs	31	22.1
> 410000/Rs	7	5.0

Table 2. Knowledge of married women regarding breastfeeding practices.

Variables	Pre outcomes Frequencies(%)	Post outcomes Frequencies(%)	p-values
1. Aware of breastfeeding methods? a. Yes b. No	43(30.7%) 95(67.9%)	115(82.1%) 23(16.4%)	.000
8. What type of breastfeeding methods have you heard of? a. Cradle hold b. Cross-cradle hold c. Laid-back breastfeeding d. Rugby ball hold e. Side-lying position f. Upright breastfeeding g. All of above H. None	12(8.6%) 15(10.7%) 17(12.1%) 18(12.9%) 21(22.9%) 32(23.18%) 8(5.7%) 15(10.7%)	2(1.4%) 1(0.7%) 2(1.4%) 4(2.9%) 1(0.7%) 6(4.3%) 119(85.0%) 3(2.1%)	.031
9. Do you know what the standard duration of breastfeeding is? a. 1-6 months b. 7-12 months c. 13-18 months d. 19-24 months	4(2.9%) 24(17.1%) 59(42.1%) 51(36.4%)	8(5.7%) 6(4.3%) 10(7.1%) 128(91.4%)	.011
10. Do you know about advantages of breast milk? a. Yes b. No	56(40.0%) 81(57.9%)	127(90.7%) 10(7.1%)	.001

11. Are you aware about benefits of initiative breast milk?			
a. Prevent from infection	27(19.3%)	4(2.9%)	.000
b. Contains important antibodies	51(36.4%)	6(4.3%)	
c. Reduce disease risk	41(29.3%)	2(1.4%)	
d. All of above	19(13.6%)	126(90.0%)	

Table 3. Average of practices of the married women regarding breastfeeding methods

Variables	Pre outcomes	post outcomes	p-values
	Frequencies (%)	Frequencies (%)	
12. Do you know that breastfeeding can reduce chances of breast cancer?			.000
a. Yes	14(10.14%)	100(72.4%)	
b. No	124(89.85%)	38(27.53%)	
13. Do you know that breastfeeding acts like birth spacer?			.001
a. Yes	14(10.14%)	114(82.60%)	
b. No	124(89.85%)	24(17.39%)	
14. Do you know that breastfeeding helps to attain pre-pregnancy weight?			.021
a. Yes	28(20.0%)	95(68.84%)	
b. No	110(78.6%)	43(31.15%)	
15. Do you know disadvantages of formula feed?			.000
a. Obesity	19(13.6%)	25(18.11%)	
b. Poor intellectual abilities	48(34.3%)	59(42.75%)	
c. Slow growth and development	45(32.1%)	30(21.73%)	
d. All of above	26(18.6%)	20(14.49%)	
16. How many times per day mother should feed her baby in first month of life?			.001
a. 1 - 3	27(19.3%)	2(1.4%)	
b. 4 - 7 times	63(45%)	7(5.0%)	
c. 8 - 11 times	6(40.3%)	125(89.3%)	
d. 12-15	42(30%)	4(2.9%)	

4. DISCUSSION:

A pre-post quasi experimental research design was utilized on the sample size of 138 to assess the knowledge of lactating mothers regarding breastfeeding practices and its contributing factors. A structured questionnaire was used to collect the data from participants. The result of this study revealed that (44.3%) participants have sufficient knowledge and (37.7%) participants have good practice. It is acknowledged that breastfeeding is a way that can not only improve the health of the mother or the baby but also reduce the mortality ratio of children under 2 years of age. However, the use of accurate breastfeeding method in Pakistan is still very low and most of the women have poor knowledge regarding how many times per day mother should feed her baby in first month of life.

Present study showed that knowledge of lactating mothers regarding benediction of breastfeeding is 90.7% after attending teaching sessions as compared to other studies which were conducted among lactating mothers in Canadian general pediatric residency program and both studies revealed that majority of the participants heard and had knowledge about benediction of breastfeeding. In Canadian knowledge related to breastfeeding was 71% (95% CI: 69-79%) randomly 4% (95% CI: 2-8%) of residents were very convenient evaluating latch, teaching parents breastfeeding positioning and addressing parents' questions regarding breastfeeding difficulties [16]. Riyadh and Dammam (Saudi Arabia) study also revealed high knowledge about benediction of breastfeeding initiation rate was 76% while only 37% continued to exclusively breastfeed [17]. The present study results are in sharp contrast to the results of study conducted in Canada and Saudi Arabia. It may be due to social, cultural and perceptual barriers which are face by lactating mothers of Faisalabad [18].

Similar findings were observed in two studies conducted in Tyrol and Northwest Ethiopia. Both studies showed that lactating mothers had insufficient knowledge and practice regarding early initiation of breastfeed. In Tyrol, 61.7% infants received supplemental feedings during the first days of life. In Northwest Ethiopia, the prevalence of early initiation of breastfeed reduces due to some contributing factors such as Caesarean sections and insufficient antenatal care visits. The results of the current study revealed that prior to the interventions only 13.7% women of Faisalabad had knowledge and 90.0% of participants had knowledge after post interventions regarding early initiation of breast milk. These findings may be due to difficult access of lactating mothers towards antenatal care institutions [19,20].

In present study, prior to the intervention only 18.6% lactating mothers have knowledge about disadvantages of formula feed. Similar findings were shown in two studies conducted in Naval Barracks & Nigeria. In Naval Barracks, 30.7% mothers engaged in bottle-feeding due to lack of knowledge about bad impacts of formula feed. In Nigeria, only 15% lactating mothers had knowledge about pitfalls of bottle feed ^[21,22].

Similar findings were shown in two studies conducted in Poland & Belgium. In Poland study revealed that 56.8% chances of higher fat mass, lower muscle mass, higher body mass index was connected with shorter duration of breastfeeding. In Belgium study, significant difference .004 was found between infant growth and buccal RXRA gene and LEP methylation at 12 months of breastfeeding that is associated with epigenetic variations. The current study concluded that only 36.4% women prior to the intervention had awareness, whereas 91.4% of participants after post-intervention had awareness about standard duration of breastfeeding. This may be due to some religious affiliations ^[23]. Both studies revealed that breastfeeding can reduce chances of breast cancer. In United State, prior to the intervention, only 17% of participants felt that breastfeeding was “extremely likely” to minor possibility of breast cancer, whereas 69% of participants felt that breastfeeding was “extremely likely” to lower the risk of breast cancer post-intervention. In South Australia, exclusive breastfeeding among parous women reduces the risk of breast cancer compared with parous women who do not breastfeed exclusively. The present study concluded that 88.6% of participants had knowledge regarding breastfeeding reduce chances of breast cancer ^[24,25].

5. CONCLUSION:

This study examines the knowledge and practice of lactating mothers regarding breastfeeding knowledge and its contributing factors. Infant feeding indicators showed that the breastfeeding practices were suboptimal in certain aspects with a low percentage of children being exclusively breastfed, short breastfeeding duration and early introduction of complementary feeding, despite high socioeconomic status. Console to all mothers to give breast milk, counsel mothers to initiate breastfeeding timely at time of Caesarean sections, reduce the indication of the Caesarean procedure and providing breastfeeding counseling during antenatal care visits. These findings suggest that there is a need to understand potential barriers towards breastfeeding in order to develop appropriate strategies to promote and support breastfeeding in Pakistan.

6. RECOMMENDATIONS :

- Female education need to be improved
- Counseling for initiating and maintenance of breast feeding during prenatal and post-partum periods is needed.
- National surveys should be carried out on a regular basis to implement latest updates of indicators of breastfeeding and infant feeding statuses.
- Policy makers and program managers need to develop targeted interventions to enhance breastfeeding practices based on the baby’s age and maternal socioeconomic status.

7. STRENGTHS & LIMITATIONS:

STRENGTHS:

- This study provides a springboard for next research.
- This is not costly to perform and does not require a lot of time.
- Rich information on infant feeding practices

LIMITATIONS:

- Time duration is short.
- The results of this study were limited to this community and care must be taken not to generalize them in an indiscriminate way.
- Higher dropout rates. To minimize dropout rates, reminders were given to the mothers about the follow up and inconvenient appointment dates were contacted through phone calls and an alternative date was given.

REFERENCES:

1. Iliadou, M., Lykeridou, K., Prezerakos, P., Swift, E. M., & Tziaferi, S. G. (2018). Measuring the effectiveness of a midwife-led education programme in terms of breastfeeding knowledge and self-efficacy, attitudes towards breastfeeding, and perceived barriers of breastfeeding among pregnant women. *Materia socio-medica*, 30(4), 240..doi: [10.5455/msm.2018.30.240-245](https://doi.org/10.5455/msm.2018.30.240-245)
2. Khoso, A., Khan, A. Z., Sayed, S. A., & Rafique, G. (2016). Perspectives regarding antenatal care, delivery and breast feeding practices of women from Baluchistan, Pakistan. *Journal of Ayub Medical College Abbottabad*, 28(1), 105-109..doi: [10.1186/1471-2393-10-61](https://doi.org/10.1186/1471-2393-10-61).

3. Al-Nuaimi, N., Katende, G., & Arulappan, J. (2017). Breastfeeding trends and determinants: implications and recommendations for gulf cooperation council countries. *Sultan Qaboos University Medical Journal*, 17(2), e155.doi: [10.18295/squmj.2016.17.02.004](https://doi.org/10.18295/squmj.2016.17.02.004)
4. Kaleem, R., Sherwani, R. A. K., Adnan, M., & Rahat, T. (2017). Optimal Breastfeeding Practices. *The Professional Medical Journal*, 24(09), 1387-1391.DOI: [10.17957/TPMJ/17.3903](https://doi.org/10.17957/TPMJ/17.3903).
5. Safdar M, Jabeen C, Kousar R, Shahzadi C, Gilani SA. The Assessment of Knowledge, Attitude and Practices of Exclusive Breast Feeding Among Lactating Mothers: A Case of Children Hospital of Lahore, Pakistan. *Saudi Journal of Medicine*. 2017;2(3):76-84.DOI: [10.21276/sjm.2017](https://doi.org/10.21276/sjm.2017).
6. Swigart, T. M., Bonvecchio, A., Théodore, F. L., Zamudio-Haas, S., Villanueva-Borbolla, M. A., & Thrasher, J. F. (2017). Breastfeeding practices, beliefs, and social norms in low-resource communities in Mexico: Insights for how to improve future promotion strategies. *PloS one*, 12(7), e0180185.
7. Esselmont, E., Moreau, K., Aglipay, M., & Pound, C. M. (2018). Residents' breastfeeding knowledge, comfort, practices, and perceptions: results of the Breastfeeding Resident Education Study (BRES). *BMC pediatrics*, 18(1), 1-7..doi: [10.1186/s12887-018-1150-7](https://doi.org/10.1186/s12887-018-1150-7).
8. Esselmont, E., Moreau, K., Aglipay, M., & Pound, C. M. (2018). Residents' breastfeeding knowledge, comfort, practices, and perceptions: results of the Breastfeeding Resident Education Study (BRES). *BMC pediatrics*, 18(1), 1-7.DOI: [http://doi.org/10.36295/ASRO.2020.231834](https://doi.org/10.36295/ASRO.2020.231834).
9. Woromogo, S. H., Elenga, M. B. O., Moussa, F. E. Y., Antaon, J. S. S., & Tebeu, P. M. (2020). Practice of Exclusive Breastfeeding in the Talangai Health District, Congo: A Cross-Sectional Analytical Study. DOI: <https://doi.org/10.21203/rs.3.rs-30534/v1>.
10. Oakley, L., Benova, L., Macleod, D., Lynch, C. A., & Campbell, O. M. (2018). Early breastfeeding practices: descriptive analysis of recent demographic and health surveys. *Maternal & child nutrition*, 14(2), e12535.<https://doi.org/10.1111/mcn.12535>
11. Patyal, N., Sheoran, P., Sarin, J., Singh, J., Jesika, K., Kumar, J., ... & Kaur, K. (2021). A Quality Improvement Initiative: Improving First-hour Breastfeeding Initiation Rate among Healthy Newborns. *Pediatric Quality & Safety*, 6(4), e433..doi: [10.1097/pq9.0000000000000433](https://doi.org/10.1097/pq9.0000000000000433).
12. Taha, Z., Garemo, M., & Nanda, J. (2018). Patterns of breastfeeding practices among infants and young children in Abu Dhabi, United Arab Emirates. *International breastfeeding journal*, 13(1), 1-10.DOI [10.1186/s13006-018-0192-7](https://doi.org/10.1186/s13006-018-0192-7).
13. 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. doi: [10.24911/SJP.2018.1.5](https://doi.org/10.24911/SJP.2018.1.5)
14. Azeze, G. A., Gelaw, K. A., Gebeyehu, N. A., Gesese, M. M., & Mokonnen, T. M. (2019). Exclusive breastfeeding practice and associated factors among mothers in Boditi Town, Wolaita Zone, Southern Ethiopia, 2018: a community-based cross-sectional study. *International journal of pediatrics*, 2019.Oct;2019.<https://doi.org/10.1155/2019/1483024>
15. Hussein, T. H., Mgongo, M., Uriyo, J. G., Damian, D. J., Stray-Pedersen, B., Msuya, S. E., & Wandel, M. (2019). Exclusive breastfeeding rates and factors associated with exclusive breastfeeding practices in northern Tanzania: measurement using two different methodologies—24 hours recall and recall since birth. *International Journal of Maternal and Child Health and AIDS*, 8(1), 32.doi: [10.21106/ijma.258](https://doi.org/10.21106/ijma.258).
16. Hussein, T. H., Mgongo, M., Uriyo, J. G., Damian, D. J., Stray-Pedersen, B., Msuya, S. E., & Wandel, M. (2019). Exclusive breastfeeding rates and factors associated with exclusive breastfeeding practices in northern Tanzania: measurement using two different methodologies—24 hours recall and recall since birth. *International Journal of Maternal and Child Health and AIDS*, 8(1), 32.32.doi: [10.21106/ijma.258](https://doi.org/10.21106/ijma.258).
17. Akbar Ali Hirani, S., & Karmaliani, R. (2012). Breastfeeding support for working mothers: Global and Pakistani perspectives. *Current Pediatric Reviews*, 8(4), 313 321.DOI: <https://doi.org/10.2174/157339612803307705>
18. Ijaz, B., Kareem, O., & Asif, A. (2019). Frequency of Breast feeding among working women of Multan. *The Professional Medical Journal*, 26(12), 2196-2200.DOI: <https://doi.org/10.29309/TPMJ/2019.26.12.3887>
19. Javed, R., Aftab, K., Saleem, U., Nawaz, M., Asghar, S., & Ahmad, B. (2019). ASSESSMENT OF KNOWLEDGE REGARDING BREASTFEEDING AMONG PREGNANT WOMEN/MOTHERS VISITING TERTIARY CARE HOSPITAL IN PUNJAB PROVINCE OF PAKISTAN. *Pakistan Journal of Public Health*, 9(3), 157-160.DOI: <https://doi.org/10.32413/pjph.v9i3.380>
20. Noh, J. W., Kim, Y. M., Akram, N., Yoo, K. B., Cheon, J., Lee, L. J., ... & Stekelenburg, J. (2019). Factors Affecting Breastfeeding Practices in Sindh Province, Pakistan: A Secondary Analysis of Cross-Sectional Survey Data. *International journal of environmental research and public health*, 16(10), 1689..<https://doi.org/10.32413/pjph.v9i3.380>

21. Ogbo, F. A., Ezeh, O. K., Khanlari, S., Naz, S., Senanayake, P., Ahmed, K. Y., ... & Eastwood, J. (2019). Determinants of exclusive breastfeeding cessation in the early postnatal period among culturally and linguistically diverse (CALD) Australian mothers. *Nutrients*, *11*(7), 1611.<https://doi.org/10.3390/nu11071611>
22. Pauwels, S., Symons, L., Vanautgaerden, E. L., Ghosh, M., Duca, R. C., Bekaert, B., ... & Godderis, L. (2019). The influence of the duration of breastfeeding on the infant's metabolic epigenome. *Nutrients*, *11*(6), 1408.<https://doi.org/10.3390/nu11061408>
23. Lassi, Z. S., Rind, F., Irfan, O., Hadi, R., Das, J. K., & Bhutta, Z. A. (2020). Impact of infant and young child feeding (IYCF) nutrition interventions on breastfeeding practices, growth and mortality in low-and middle-income countries: systematic review. *Nutrients*, *12*(3), 722.<https://doi.org/10.3390/nu12030722>
24. McCoy, M. B., & Heggie, P. (2020). In-hospital formula feeding and breastfeeding duration. *Pediatrics*, *146*(1).DOI: [10.1542/peds.2019-2946](https://doi.org/10.1542/peds.2019-2946)
25. Al-Akour NA, Okour A, Aldebbs RT. Factors associated with exclusive breastfeeding practices among mothers in Syria: a cross-sectional study. *Journal of Advances in Medicine and Medical Research*.2014 Feb 25:2713-24.DOI: [10.9734/BJMMR/2014/8395](https://doi.org/10.9734/BJMMR/2014/8395)