

Original article

"They shouted at me to discontinue exclusive breastfeeding": narratives of mothers in Limpopo Province of South Africa as they grapple with exclusive breastfeeding

Nyabana Martha Maponya¹, Sogo France Matlala²

Abstract

Objective: Exclusive breastfeeding for the first six months of an infant's life is an internationally recognised practice that promotes maternal and child health. Mothers and their infants reap health and socioeconomic benefits from exclusive breastfeeding. Even with these benefits, exclusive breastfeeding is still a challenge for some mothers to practice. Many studies revealed numerous challenges and enablers, and proposed comprehensive solutions, but implementation of exclusive breastfeeding for six months remains a challenge although there is some improvement. This study therefore explored barriers and facilitators to practice exclusive breastfeeding for the first six months of the infant's life among mothers attending a health centre in Limpopo Province of South Africa, to contribute to the ongoing measures to increase the practice.

Materials and methods: Mothers were selected through purposive sampling and semi-structured interviews were held with those willing to participate until saturation of data was reached. Interviews were audio-recorded, transcribed verbatim and analysed using a thematic analysis approach. Ethical issues of consent, permission and confidentiality were respected as well as trustworthiness criteria. **Results and Discussion:** Nine mothers narrated their experiences as they navigated through the exclusive breastfeeding practice. Education on exclusive breastfeeding and social support to a breastfeeding mother emerged as both barriers and facilitators to practice exclusive breastfeeding for six months. **Conclusion:** The study recommends that vigorous education on exclusive breastfeeding for six months be given to mothers during antenatal care and be extended to include relatives to empower them to support a breastfeeding mother.

Keywords: Human milk; breastfeeding facilitator; barrier to breastfeeding; social support; exclusive breastfeeding

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Introduction

Exclusive breastfeeding refers to feeding an infant with human milk only during the first six months of life¹. Human milk contains the required nutrients for the child, is clean and supports the infant's own immune function²⁻⁴. When practicing exclusive breastfeeding, other liquids such as oral rehydration solutions, liquid-based vitamins and mineral supplements as well as prescribed medicines may be given to the infant but ordinary water and fruit juice are not allowed before the infant reaches six months. The infant can suck the mother's own milk directly

from the mother or can drink expressed milk from its own mother or from a donor mother. Exclusive breastfeeding should be initiated during the first hour after birth and continue for the first six months to improve the nutrition status of infants and unlock their potentials as human milk stimulates cognitive development. Exclusive breastfeeding is an important intervention to reduce child morbidity and mortality as it protects infants from childhood diseases and conditions such as ear infections, respiratory tract infections, gastrointestinal infections and childhood malnutrition⁵. Mothers also reap health benefits such

1. Nyabana Martha Maponya, University of Limpopo. Email: mnmmaponya61@gmail.com
2. Sogo France Matlala, <https://orcid.org/0000-0002-2291-6779> University of Limpopo.
Email: France.Matlala@ul.ac.za

Correspondence: Sogo France Matlala, <https://orcid.org/0000-0002-2291-6779>, Email: France.Matlala@ul.ac.za

as reduced risk of cardiovascular diseases, stress and anxiety, diabetes and gynaecologic cancers when they practice exclusive breastfeeding⁶.

Exclusive breastfeeding is monitored regularly in South Africa and globally, although there are challenges with availability of reliable data⁷. Globally, less than half (41%) of infants under six months of age were exclusively breastfed in 2018⁵. The demographic and health survey of 2016 estimated the exclusive breastfeeding rate for South Africa at 32%⁸. Exclusive breastfeeding is a challenge which mothers have to grapple with. To navigate successfully through the exclusive breastfeeding practice, mothers need social support from close relatives as well as from the health system as a whole. Practicing exclusive breastfeeding is not an easy task for some mothers as they face socio-economic, health and cultural challenges to initiate breastfeeding early and to breastfeed exclusively for six months⁹. Fathers and other relatives can provide social support and protection to mothers as a way to facilitate exclusive breastfeeding¹⁰⁻¹².

In 2017, statistics at a health centre in Limpopo Province revealed that only 10.7% of infants coming for Hexavalent vaccination 3rd dose were being exclusively breastfed. Hexavalent vaccination 3rd dose is given to infants around three months after birth. Exclusive breastfeeding at Hexavalent vaccination 3rd dose is a nutrition indicator on the District Health Information System (DHIS) and is monitored monthly by using data input forms at primary health care (PHC) to check if mothers are still breastfeeding exclusively. Health education on the benefits of exclusive breastfeeding to the health of both the mother and the infant has been given to mothers during antenatal and postnatal care, but the exclusive breastfeeding rate remained low. It therefore became necessary to explore mothers' perceptions of facilitators and barriers to exclusively breastfeed their infants for six months.

The purpose of the study was to explore mothers' perceptions of facilitators and barriers to exclusively breastfeed their infants for six months after birth. The objectives were to explore and describe the way mothers thought and viewed factors that contribute to success and failure to exclusively breastfeed for the first six months of an infant's life.

Materials and Methods

The study used a qualitative descriptive research design¹³. This design was relevant for a study that

sought to understand the way mothers thought and viewed factors that contributed to success and failure to exclusively breastfeed for six months.

Research site and population

This study took place at a community health centre (CHC) in Mopani district of Limpopo Province, South Africa among breastfeeding mothers with children of less than six months old. Limpopo Province is one of the nine provinces of South Africa and it is divided into five district municipalities, which are Mopani, Capricorn, Vhembe, Sekhukhune and Waterberg. There are human milk banks in Limpopo Province and some mothers are willing to donate and to receive human milk from these banks¹⁴⁻¹⁶.

The CHC was in a rural area governed by a traditional authority. Most people in the area spoke Xitsonga as their home language with few speaking Sepedi. There were also some foreign nationals speaking languages like Shona, English and others. The catchment area of the CHC consisted of six villages, and family structures included extended family, nuclear family and single parenting. The CHC was providing comprehensive primary health services, which included immunisation and promotion of exclusive breastfeeding. Healthcare workers participating in the promotion and monitoring of exclusive breastfeeding in the catchment area of the CHC included nurses, a dietitian, data capturers, community health workers and five Ward Based Outreach Teams. The researchers recruited mothers during immunisation visits for the 3rd dose of Hexavalent. The recruitment process involved giving information to all mothers in the waiting area of the CHC about the study then evaluating those showing interest for eligibility to participate.

Sampling

The researchers chose purposive sampling as the most relevant sampling method for this study. Researchers, through their own judgement, use purposive sampling to select participants able and willing to share information that will answer the research question^{17, 18}. In this study, the researchers purposely selected mothers with infants of up to six months and able to speak Xitsonga, Sepedi or English. Researchers believed those mothers were able to recall and describe factors contributing to their failure to breastfeed exclusively, the period at which they started feeding their infants with breastmilk substitutes and factors that enabled them to continue with exclusive breastfeeding. Many

mothers were available to participate, however, only nine participated due to saturation of data. Researcher realise they have reached saturation of data when beginning to hear similar sentiments during interviews¹⁸.

Data collection

The researchers were ready to conduct interviews in English, Xitsonga and Sepedi depending on preferences of individual participants. As only Xitsonga speaking mothers were available, all semi-structured interviews were conducted in Xitsonga and lasted for 30 to 60 minutes. An interview guide, with a section to collect demographic data and another section having the main question for the interview as well as questions to probe, was used. To ensure that the interviewer focused on the interview, all interviews were audio-recorded with a smartphone voice recording application and the recordings were uploaded into a computer at the end. The voice recording application on a smartphone makes it easy to upload audio recordings, using Bluetooth or USB drive, to a computer for analysis¹⁹. It is important for researchers to focus during the interview so that they do not miss opportunities to probe as well as to avoid asking questions that participants may have already provided answers for while answering the main question. Mothers were interviewed one-by-one as they became available between attentions by nurses until saturation of data was reached.

Data analysis

In qualitative research, data analysis starts during data collection and the process involves several back and forth steps between data collection and data analysis²⁰. Starting data analysis while still collecting data helps a researcher to probe and become aware of achieving data saturation. The current study used thematic analysis. Thematic analysis is a nonlinear and iterative process, but having identifiable steps²¹. These steps are overlapping and include preparing and organizing data, transcribing the audio recordings, becoming familiar with the data, memoing the data, coding the data, producing categories and themes and then making the analysis process transparent. As indicated above, all interviews were conducted in Xitsonga, following that, audio recordings were transcribed verbatim and were then translated to English.

Ethical considerations

The study respected research ethics principles by obtaining ethical clearance (TREC/15/2019: PG), asking for voluntary participation and obtaining permission from a Department of Health (Ref: LP_201903_005) as well as from a district office (Ref: S4/2/2) to access mothers at the CHC. Furthermore, mothers' confidentiality and anonymity were respected by using numbers instead of real names when capturing data and reporting results.

Trustworthiness

Trustworthiness of a qualitative study refers to its truthfulness and worthiness of being used by other researchers²². Four criteria, which are credibility, confirmability, dependability and transferability, are used to ensure trustworthiness. The current study satisfied all the four criteria. As an additional way to ensure trustworthiness, the researchers gave an independent coder, with experience in qualitative research and reproductive health, all transcriptions to analyse. The themes found were compared with those found by the researchers and a meeting was held to discuss and agree on the final themes.

Results

Saturation of data resulted in nine mothers participating, with one being between 15 and 19 years old, another being between 20 and 24 years old, four being between 25 and 29 years old and three being between 35 and 39 years old. Three were still attending school while four had passed Grade 12, two passed Grade 11 and three passed Grade 10. Out of all the nine mothers, three were primiparous while six were multiparous. Only two mothers were employed, one was self-employed and three were unemployed.

Data analysis yielded two themes and four sub-themes which are presented with narratives in Table 1 below. The themes show barriers and facilitators to exclusive breastfeeding for the first six months of the baby's life. Barriers are those descriptions that discourage exclusive breastfeeding while facilitators are those that support exclusive breastfeeding²³. Sub-themes show that knowledge, awareness or education on exclusive breastfeeding as well as social support are key factors to the practice of exclusive breastfeeding for the first six months. The presence or absence of each of the key factors is a facilitator and a barrier respectively.

Table 1: Themes, sub-themes and narratives

Themes	Sub-themes	Narratives
1. Barriers to exclusive breastfeeding	1.1 Inadequate knowledge, awareness or education on exclusive breastfeeding	Grandmothers tell us the baby must be given food before six months because it cannot be satisfied with human milk only. When it cries, the father say the baby is hungry and I must give it soft porridge because is what the grandmother says, so the child doesn't die of hunger (Participant 5). They [relatives] say it is due to thirst when the baby cries for a long time (Participant 4).
	1.2 Inadequate social support to breastfeed exclusively	It would be good for fathers and grandmothers to also be taught that babies are to be fed with human milk only for the first six months of life (Participant 2). They [relatives] were shouting at me saying 'can you spend six months without eating! Human milk is eroding the baby's tummy' (Participant 6). I didn't get anywhere with my intention [to breastfeed exclusively]. It is my mother who gave the baby water while I was away when the baby was crying (Participant 4).
2. Facilitators to exclusive breastfeeding	2.1 Adequate knowledge, awareness or education on exclusive breastfeeding	At the clinic they taught us that baby's food is human milk only ... in human milk there is water for thirst and food to strengthen and assist the baby grow (Participant 8). I think that grandmothers can understand if taught, so I appeal to all mothers to share information we get from clinics with mothers and grandmothers (Participant 3).
	2.2 Adequate social support to breastfeed exclusively	Doctors and everyone in the hospitals must always remind mothers to exclusively breastfeed their babies ... they must tell mothers what will happen to their babies if they do not breastfeed exclusively, this will make mothers refrain from giving their babies other food before six months (Participant 1). My husband doesn't have a problem, he was taught at the clinic about exclusive breastfeeding for the first six months. I told him my intention to exclusively breastfeed.

Discussion

Mothers in the current study possess characteristics that can act as facilitators and also as barriers to breastfeed exclusively for six months. Research shows that younger and less educated mothers without prior breastfeeding experience are likely to experience barriers to breastfeed exclusively²⁴. Returning to work and returning to school for a breastfeeding mothers are barriers to continuation of exclusive breastfeeding and these two factors can also lead to early weaning^{25, 26}.

Mothers perceive lack of knowledge and lack of social support as barriers to exclusive breastfeeding. Mothers' narratives suggest that some grandmothers lack knowledge that human milk contains 'the required nutrients to satisfy an infant. They also lack knowledge that a less than six months infant's gut is not fully developed to process solids and other liquids except human milk and some medicines. Furthermore, some fathers also lack knowledge that human milk satisfies both hunger and thirst. These narratives that grandmothers and fathers lack knowledge that human milk alone will satisfy an infant are similar to those narrated in two African studies, one from Ghana²⁷ and another from Tanzania²⁸. Due to lack of knowledge, infant's cry is

understood as sign of hunger or thirst. Furthermore, some relatives advise mothers to gradually introduce some type of complementary foods as a way to prepare the infant's gut for full introduction of complementary foods, without knowing that early introduction of complementary foods can be harmful. Grandmothers are sources of wisdom and their advice is heeded, as such, mothers will discontinue exclusive breastfeeding if grandmothers instruct²⁸. Heeding the advice of grandparents is a good practice but it becomes dangerous if their advice is based on lack of knowledge.

In the current study, mothers narrate that some relatives frustrate their intention to breastfeed exclusively. It shows lack of social support when close relatives frustrate a mother's intention to breastfeed exclusively. Social support refers to the help and reassurance that social networks give to a person facing challenges²⁹, and this can apply to mothers facing challenges to breastfeed exclusively, so that she can have confidence to succeed in breastfeeding her infant for the first six months after birth. Besides showing lack of knowledge that human milk builds, supports and nourishes the infant's gut, some relatives put pressure on mothers to introduce

complementary foods within the first six months of the infant's life. Relatives put pressure on the mother by scolding her to introduce complementary foods. Furthermore, a participant narrated that her mother frustrated her intention to practice exclusive breastfeeding by giving water to the infant when she had left it with her. Grandmothers should support mothers when they return to work or to school by continuing exclusive breastfeeding which the infant's mother are intending to practice. They can achieve this by giving the infant its own mother's expressed milk. Returning to work and to school are some of the reasons to discontinue exclusive breastfeeding in a situation where there is lack of social support by relatives^{28, 30}. Grandmothers can provide negative social support to mothers, especially young and new ones, as they navigate the exclusive breastfeeding practice¹⁰. Breastfeeding-friendly home and workplace environments are important to support mothers as they practice exclusive breastfeeding³¹.

Mothers narrated that adequate knowledge and social support are facilitators to exclusive breastfeeding. Some narrate that their PHC clinics provide knowledge on exclusive breastfeeding which emphasise that human milk is adequate food for a young infant of less than six months, it quenches thirst and that colostrum should be fed to infants to promote their growth. Studies show that human milk alone is sufficient to promote growth in a young infant of less than six months²⁻⁴. PHC clinics, as part of a health system, should give correct information to the community on exclusive breastfeeding to promote maternal and child health³².

Mothers expect health workers to support and promote exclusive breastfeeding by teaching and reminding mothers about the benefits of exclusive breastfeeding. Health workers should also inform mothers about the dangers of mixed feeding. Mothers also narrates that an adequately-informed father provides social support to a mother who intends to breastfeed exclusively. The supportive role of fathers to breastfeeding is sufficiently described in many studies^{10-12, 33}.

Conclusion

Exclusive breastfeeding has benefits for maternal and child health yet is not easy to practice for some mothers. Those who get social support find it easy to breast feed their infants exclusively for six months while those without social support fail even when they had intended to practice it. Having adequate knowledge about exclusive breastfeeding by mothers and their

parents as well as their male partners facilitates exclusive breastfeeding. The health system as a whole can promote exclusive breastfeeding by educating mothers and their relatives so that breastfeeding becomes the responsibility of all, not just of mothers.

Recommendations

Exclusive breastfeeding must be approached as a responsibility of many players who are all educated so they can all support its practice. The role of grandparents and fathers in promoting exclusive breastfeeding has to be recognised and programmes be put in place to facilitate their contributions. It is not possible for mothers to be with their infants all the time as they have to attend to other responsibilities like going to work or to school, as such, there should be knowledgeable people to look after their infants and allow continuation of exclusive breastfeeding.

Limitations

This qualitative study has achieved its stated objectives which were to explore and describe barriers and facilitator to exclusive breastfeeding amongst mothers attending a specific health facility in Limpopo Province. Mothers narrated their journeys as they navigate exclusive breastfeeding practice. The views narrated are their own and cannot be generalised to mothers who did not participate in this study.

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Authors's contribution:

Data gathering and idea owner of this study: Nyabana Martha Maponya

Study design: Sogo France Matlala

Data gathering: Nyabana Martha Maponya

Writing and submitting manuscript: Sogo France Matlala

Editing and approval of final draft: Sogo France Matlala; Nyabana Martha Maponya

References

- IJMH_44_19
1. World Health Organization. Indicators for Assessing Infant and Young Child Feeding Practices Part 3. *Country Profiles* 2010. https://apps.who.int/iris/bitstream/handle/10665/44368/9789241599757_eng.pdf
 2. Carr LE, Elolimy A, Rosa F, Virmani MD, Munblit D and Yeruva L. Role of human milk bioactives on infants' gut and immune health. *Front. immunol* 2021;12:290. <https://doi.org/10.3389/fimmu.2021.604080>
 3. Lyons KE, Ryan CA, Dempsey EM, Ross RP, Stanton C. Breast milk, a source of beneficial microbes and associated benefits for infant health. *Nutrients* 2020 Apr;12(4):1039. <https://doi.org/10.3390/nu12041039>
 4. Vizzari G, Morniroli D, Ceroni F, Verduci E, Consales A, Colombo L, Cerasani J, Mosca F and Giannì ML. Human Milk, More Than Simple Nourishment. *Children*. 2021 Oct;8(10):863. <https://doi.org/10.3390/children8100863>
 5. World Health Organization. Global Breastfeeding Scorecard, 2019: Increasing commitment to breastfeeding through funding and improved policies and programmes. *World Health Organization* 2019. <https://apps.who.int/iris/handle/10665/326049>.
 6. Del Ciampo LA, Del Ciampo IR. Breastfeeding and the Benefits of Lactation for Women's Health. *Revista Brasileira de Ginecologia e Obstetricia/RBGO Gynecology and Obstetrics* 2018 Jun;40(06):354-9. <https://dx.doi.org/10.1055/s-0038-1657766>
 7. Martin-Wiesner P. A policy-friendly environment for breastfeeding. A review of South Africa's progress in systematising its international and national responsibilities to protect, promote and support breastfeeding. Johannesburg: DST-NRF Centre of Excellence in Human Development 2018 <https://www.wits.ac.za/coe-human/coe-research-grants/coe-research-and-advocacy-on-breastfeeding/breastfeeding-policy-review/>
 8. National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC), and ICF. South Africa demographic and health survey 2016." *Pretoria, South Africa and Rockville, Maryland, USA* 2019 <https://dhsprogram.com/pubs/pdf/FR337/FR337.pdf>
 9. Oyedele OK, Fagbamigbe AF, Ayeni O. Modelling time-to-discontinuation of exclusive breastfeeding: analysis of infants and under-2 survival in Nigeria. *Afr. Popul. Stud.* 2020 Jul 24;34(1):<https://doi.org/10.11564/34-1-1500>
 10. Agudile EP, Okechukwu CA, Subramanian SV, Geller AC, Langer A. The roles of social networks and social support on breastfeeding practices in Nigeria. *Int J Med Health Dev* 2020;25:57-69. DOI: 10.4103/ijmh.ijmh_44_19
 11. Crippa BL, Consales A, Morniroli D, Lunetto F, Bettinelli ME, Sannino P, et al. From dyad to triad: a survey on fathers' knowledge and attitudes toward breastfeeding. *Eur. J. Pediatr.* 2021 Mar 29:1-9. <https://doi.org/10.1007/s00431-021-04034-x>
 12. Mgolozeli SE, Shilubane HN, Khoza LB and Nesavuni CN. Perceived Roles of Fathers in the Promotion, Support and Protection of Breastfeeding. *Afr J Nurs Midwifery*. 2018 Oct 3;20(2):<https://doi.org/10.25159/2520-5293/4060>
 13. Kim H, Sefcik JS, Bradway C. Characteristics of Qualitative Descriptive Studies: A Systematic Review. *Res Nurs Health*. 2017 Feb;40(1):23-42. <https://doi.org/10.1002/nur.21768>
 14. Matlala M. Limpopo mothers give breastmilk donation the thumbs up. *Health-e News* August 10, 2021. Accessed November 13, 2021. <https://health-e.org.za/2021/08/10/limpopo-mothers-give-breastmilk-donation-the-thumbs-up/>
 15. Mahlatjie M, Bopape M and Mothiba T. Women's Knowledge and Attitudes on Established Breastmilk Bank in Limpopo Province, South Africa. *Glob. J. Health Sci.* 2019;11(9):1-93. <https://doi.org/10.5539/gjhs.v11n9p93>
 16. Mukwevho N. Limpopo gets first breast milk bank. *Health-e News* July 8, 2016. Accessed November 13, 2021. <https://health-e.org.za/2016/07/08/limpopo-gets-first-breast-milk-bank/>
 17. Etikan I, Musa SA and Alkassim RS. Comparison of convenience sampling and purposive sampling. *Am. J. Theor. Appl. Stat.* 2016 Jan 5;5(1):1-4. doi: 10.11648/j.ajtas.20160501.11
 18. Moser A and Korstjens I. Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *Eur J Gen Pract.* 2018 Jan 1;24(1):9-18. <https://doi.org/10.1080/13814788.2017.1375091>
 19. Matlala SF and Matlala MN. The Use of a Smartphone to Facilitate Qualitative Research in South Africa. Qualitative Report. 2018 Oct 1;23(10). *Qual. Rep.* 23 (10): 2264-2275. <https://doi.org/10.46743/2160-3715/2018.3409>
 20. Busetto L, Wick W and Gumbinger C. How to use and assess qualitative research methods. *Neurol. Res. Pract.* 2020;2 (14):<https://doi.org/10.1186/s42466-020-00059-z>
 21. Lester JN, Cho Y and Lochmiller CR. Learning to do qualitative data analysis: A starting point. *Hum. Resour. Dev. Rev.* 2020 Mar;19(1):94-106. <https://doi.org/10.1177/1534484320903890>

22. Nowell LS, Norris JM, White DE and Moules NJ. Thematic analysis: Striving to meet the trustworthiness criteria. *Int. J. Qual. Methods.* 2017 Sep 28;16(1). <https://doi.org/10.1177/1609406917733847>
23. Mundagowa PT, Chadambuka EM, Chimberengwa PT and Mukora-Mutseyekwa FN. Barriers and facilitators to exclusive breastfeeding practices in a disadvantaged community in southern Zimbabwe: A maternal perspective. *World Nutrition.* 2021 Mar 31;12(1):73-91. <https://doi.org/10.26596/wn.202112173-91>
24. Topothai C, Topothai T, Suphanchaimat R, Patcharanarumol W, Putthasri W, Hangchaowanich Y et al. Breastfeeding Practice and Association between Characteristics and Experiences of Mothers Living in Bangkok. *Int. J. Environ. Res. Public Health.* 2021 Jan;18(15):7889. <https://doi.org/10.3390/ijerph18157889>
25. Dutheil F, Méchin G, Vorilhon P, Benson AC, Bottet A, Clinchamps M et al. Breastfeeding after returning to work: A systematic review and meta-analysis. *Int. J. Environ. Res. Public Health.* 2021 Jan;18(16):8631. <https://doi.org/10.3390/ijerph18168631>
26. Brown CR, Dodds L, Legge A, Bryanton J and Semenic S. Factors influencing the reasons why mothers stop breastfeeding. *Can. J. Public Health.* 2014 May;105(3):e179-85. <https://doi.org/10.17269/cjph.105.4244>
27. Nsiah-Asamoah C, Doku DT and Agblorti S. Mothers' and Grandmothers' misconceptions and socio-cultural factors as barriers to exclusive breastfeeding: A qualitative study involving Health Workers in two rural districts of Ghana. *PLoS one.* 2020 Sep 17;15(9):e0239278.. <https://doi.org/10.1371/journal.pone.0239278>
28. Mgongo M, Hussein TH, Stray-Pedersen B, Vangen S, Msuya SE and Wandel M. "We give water or porridge, but we don't really know what the child wants:" a qualitative study on women's perceptions and practises regarding exclusive breastfeeding in Kilimanjaro region, Tanzania. *BMC Pregnancy Childbirth.* 2018 Dec;18(1):1-9. <https://doi.org/10.1186/s12884-018-1962-3>
29. Matlala SF. Facilitation of Social Support for Expectant Students in South Africa: A Concept Analysis. "Glob. J. Health Sci. 2018;10(6):<https://doi.org/10.5539/gjhs.v10n6p173>
30. Frans RA, Malema RN, Matlala SF. Knowledge and practices of mothers regarding exclusive breastfeeding in the Mahwelereng local area of the Limpopo Province, South Africa. *Afr. J. Phys. Health Educ. Recreat. Dance.* 2015 Dec 5. 812-825. <http://hdl.handle.net/10386/1480>
31. Afroze S, Biswas A, Begum NA and Ng YP. Exclusive Breast feeding in the 21st Century: a Roadmap to success in South Asia. *Bangladesh J Med Sci.* 2021 Jun 18;20(4):725-31. <https://doi.org/10.3329/bjms.v20i4.54126>
32. Kinshella ML, Prasad S, Hiwa T, Vidler M, Nyondo-Mipando AL, Dube Q et al. Barriers and facilitators for early and exclusive breastfeeding in health facilities in Sub-Saharan Africa: a systematic review. *Global Health Research and Policy.* 2021 Dec;6(1):1-1. <https://doi.org/10.1186/s41256-021-00206-2>
33. Mohamad N, Sulaiman Z and Ismail TA. Induced lactation case report: The journey to attain mahram relationship. *Bangladesh J Med Sci.* 2021 Jun 18;20(4):918-22. <https://doi.org/10.3329/bjms.v20i4.54153>