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Why are breastfeeding rates declining in Iran? A qualitative study on three centers in Tehran

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Mamak SHARIAT[1] Nasrin ABEDINIA[2]* Abdulqader Hamad[3]

Abstract

Background and objective: This qualitative study was conducted to identify obstacles to breastfeeding and provide strategies for promoting its practice in Tehran based on the experiences and perceptions of breastfeeding mothers.

Methods: Data were first collected through focus group discussions with 51 breastfeeding mothers admitted to Vali Asr Hospital in the Imam Khomeini Hospital Complex and two health centers in Tehran. We held follow-up in-depth interviews with 26 mothers over a year postpartum or until breastfeeding was discontinued.

Results: The most important barriers to breastfeeding were (1) Physical condition of the mother, including lack of vigor, physical weakness, weight loss, inappropriate nutrition, nipple-related problems, inadequate breast milk, changes in body shape, and maternal and neonatal diseases. (2) Health care system, including (a) Hospital-related problems included (i) Providing educational services related to breastfeeding, (ii) Problems related to the behaviors of hospital staff, and breastfeeding problems related to cesarean delivery. (3) Emotional and psychosocial aspects of breastfeeding, including emotional support from husband and family, dislike of breastfeeding in public places, stress and mental pressure, and maternal employment.

Conclusion: Politicians in the field of health can exert a considerable effect on breastfeeding practice and its continuation by providing early intervention designed to increase awareness of breastfeeding among young girls, training health staff in offering breastfeeding support, and ensuring contact between mother and infant. Also, provide support services, such as extended maternity leaves, daycare facilities in the workplace, and breastfeeding counseling centers. Further research is needed to assess the effectiveness of the interventions currently proposed in the Iranian context.

Keywords: Breastfeeding; Qualitative research; Psycho-physical problems; Exclusive breastfeeding.

Introduction

Breastfeeding is effective in the health, safety, mental, and physical development of the child, and it has many social, economic, and environmental benefits for the mother and the community.[1] The World Health Organization (WHO) defined breastfeeding as the initiation and continuation of exclusive breastfeeding and recommended that only breast milk be fed to infants up to 6 months of life.[2]

Studies indicated that breastfeeding rates over time decrease to levels lower than those at the beginning of the practice; this reduction varies between 63.8% and 96%.[3,4] The proportion of infants exclusively breastfed at four months old is 75.7%, and that of children exclusively breastfed at six months is 27.4% to 31.17%; in a year, only 27 % of one-year-old children were continued breastfed by their mothers.[5-8]

[1] Institute of Family Health, Maternal, Fetal and Neonatal Health Research Center, Vali ASR hospital, Imam Khomeini hospital complex, Tehran University of medical sciences (TUMS), Tehran, Iran.
[2] Clinical Psychologist, Institute of Family Health, Maternal, Fetal and Neonatal Health Research Center, Vali ASR hospital, Imam Khomeini hospital complex, Tehran University of Medical Sciences, (TUMS), Tehran, Iran.
[3] Psychiatric and Mental Health Unit, Department of Nursing, College of Nursing, Hawler Medical University, Erbil, Iraq.
* Correspondence: nasrin.abedinia@gmail.com

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The various factors are involved in the rate of breastfeeding, such as the duration of pregnancy, the type of delivery, postpartum depression or mental health of mothers, inadequate milk, mother's employment status, husband and family support, Suitable place to keep babies at work, training of health staff and the role of knowledge and attitude of mothers in breastfeeding to the child.[9-12]

The process of increasing the employment of mothers as well as other influential factors reduces the rate of breastfeeding. The increase in household costs due to the use of milk formula and problems such as malnutrition, increased infectious diseases, increased obesity, and chronic diseases in adulthood gradually increase in the community. In addition to personal problems, a heavy financial burden will impose on the government in the health part.[1]

According to the Ministry of Health and Medical Education of Iran, less than a third (28%) of infants younger than six months are fed exclusively with breast milk. In recent years, indicators related to breastfeeding in Iran have sharply declined, and the rate of exclusive breastfeeding in the country continues to decrease.[13,14] The lack of comprehensive and useful information on the factors that discourage breastfeeding among mothers highlights the need to conduct detailed studies on this matter. Therefore, we carried out a qualitative and long-term study to understand the experiences and feelings of lactating mothers, identify the factors that reduce their motivation to breastfeed, and recommend strategies for solving the problems mothers encounter in this regard. The study involved a series of interviews carried out within a year.

Methods

Design

This research is a qualitative design, implemented through focus group discussions and individual in-depth interviews.

Sampling and participants

Participants were sampled from the delivery ward of Vali Asr Hospital in the Imam Khomeini Hospital Complex, the Health Center Ray in Afsariyeh, Tehran, and the South West Health Center in Akbarabad, Tehran. The participants were referred to a researcher (a psychologist who had experience conducting qualitative research) for interviews and focus group discussions approximately seven days after delivery. The mothers, including mothers were the same at the socioeconomic level. Sampling was performed from a government and university hospital, those who came to the hospital or health center for jaundice control or vaccinations of their infants, getting checked their surgical stitches, and consultation for breastfeeding. The researcher explained the purposes of the research to the participants. Also, she told them that their participation was voluntary and that confidentiality of records was ensured. After their approval to participate in the interview, their consent to record the interview was obtained.

Data collection

The study was conducted in two stages. In the first stage, 51 mothers were asked to attend group meetings from February to July 2016. In each session, about five mothers participated in a 60- to 90-minute focus group discussion guided by four questions: (1) When did you stay at this hospital after childbirth, and how was your condition? (2) Can you tell me how your experience with breastfeeding is? What about your feeling? (3) If you have any breastfeeding problems, please let me know. (4) Would you like to add anything else about your breastfeeding experience?

With permission from the participants, the discussions were recorded and then transcribed. The focus group discussions were intended to illuminate the problems encountered by the mothers, determine whether they effectively continued breastfeeding, and facilitate the second stage of the study. We performed 30 to

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60-minute interviews with 26 of the mothers from July to December 2016. During the research, 18 mothers were willing to withdraw from participation, and seven stopped breastfeeding after being discharged from the hospital. Permission to record and transcribe the interviews was obtained from the participants. Follow-up interviews were conducted for about a year to determine whether the mothers continued or discontinued breastfeeding. Follow-up was conducted every month by telephone conversation lasting 10 to 30 minutes.

To obtain additional comprehensive and more accurate information about the breastfeeding difficulties experienced by mothers, after the interview with the mothers, a 3-hour session with pediatricians related to breastfeeding problems was conducted by the researcher. Experts from the Neonatal, Fetal, and Maternal Research Center of Vali Asr Hospital confirmed the same problems that mothers expressed about breastfeeding. The purpose of this interview was to get more information about breastfeeding problems that we could not get more information, and we only mentioned interviews with experts in the text.

Data analysis

The transcripts of the focus group discussions and individual interviews were analyzed through qualitative– inductive content analysis. In this method, researchers avoid the application of preconceived interpretive categories and instead infer meaning and new knowledge from data—a process called inductive analysis. Data from the interviews are analyzed, and meaning associations are derived. The use of pre-existing theories is inappropriate in this case; thus, data analysis begins through repeated readings of interview transcripts until a thorough understanding of the subject matter is achieved. Based on a researcher's perceptions and understanding of the text, the writing of the initial analysis begins and continues until a foundation for coding emerges. From the text, a coding plan is established, after which information is then coded and categorized based on similarities and differences. The next stage involves constructing definitions for each category, subcategory, and code.[13] In this study, recurring issues were identified and summarized from the raw data. Based on the identified primary and secondary issues, we derived insights into the feelings and experiences of breastfeeding mothers. Issues that the mothers expressed during the focus group discussions were eliminated from the interviews to avoid duplication**.**

Ethical considerations

This study was approved by the ethics committee of Tehran University of Medical Sciences (Approval No. 18174). Written consent for interviews and recording was obtained during the focus group meetings with the participating mothers. All the ethical principles related to the confidentiality and protection of the audio data were explained to the participants and volunteers. The participants were informed of their discretion regarding carrying on with the study or withdrawing from participation. The participants were also told that the data collected were to be used solely for the study.

Results

The demographic characteristics of the women participating in the interview are listed in Table 1. The most important barriers to breastfeeding among the participating women were the physical condition of the mother (69%) (e.g., lack of vigor, physical weakness, weight loss, and inappropriate nutrition), nipple-related problems (88%), inadequate breast milk (91%), changes in body shape (2%), maternal and neonatal diseases (27%), educational services related to breastfeeding (76%), behaviors of hospital staff (92%), a cesarean delivery (59%), support from husband and family (38%), dislike of breastfeeding in public

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places (41%), stress and mental pressure (94%), and maternal employment (79%). As previously stated, 18 of the mothers withdrew from the study, and seven stopped breastfeeding after discharge from the hospital. Among the remaining participants, 13 continued breastfeeding between 3 and 6 months after childbirth, and 13 continued breastfeeding for up to a year. The identified barriers to breastfeeding were classified into three major categories, described as follows:

(1) Physical condition of the mother

Lack of vigor, physical weakness, weight loss, and inappropriate nutrition

Some mothers said that they are weak and disabled physically, do not have proper nutrition also not have enough energy, then lactation will make them weaker and weigh them down; so they refused to breastfeed their baby:

"Weight loss reduces the stamina needed for breastfeeding and producing enough milk; it leads to weakness and thinness . . . Proper nutrition is very effective in breastfeeding."

Nipple-related problems

Most mothers stated that they had pain in the nipple at the beginning of breastfeeding, gradually; the pain and wound of the nipple became more severe, or the wound turned to crack the nipple. Pain and nipple ulcers led to stopping lactation:

"When pressure is exerted on my nipple, blood comes out . . . my problem is that when my baby pulls back my nipple, I get very nervous, upset, and worried . . . forced to give formula in the hospital. The first day, my baby was given milk through a syringe, so I did this as well . . . my baby drinks milk from a bottle very well . . . soreness on my nipples causes me to give formula."

Inadequate breast milk

Most mothers said that they do not have enough milk to feed their babies, so they used a formula to feed their babies:

"I did not have enough milk the first night after childbirth, and my baby was crying excessively . . . as prescribed by my physician, I started feeding my baby formula . . . I did not know that milk comes after three days, so when the milk did not come out, I started to give formula to my baby."

Changes in body shape

Some mothers refuse to breastfeed because they thought their breast forms would change and their bodies would look ugly:

"If I give milk to my baby, the shape and form of my breasts will be ugly and dangling."

Table 1 Demographic characteristics of mothers who participated in the study sample (n=51)

Variables		n (%)
Age Mothers (M±SD)		28.53 ± 4.33
Education	Under Diploma	15 (29.4%)
	Diploma	24 (47.1%)
	Upper Diploma	12 (23.5%)
Job Mothers	House worker	40 (78.4%)
	Employed	11 (21.6%)
Type of delivery	Natural	15 (29.4%)
	Cesarean	36 (70.6%)
Duration of pregnancy (M±SD)		36.33 ± 2.29

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Maternal and neonatal diseases

More mothers stated that the reasons for the cessation of breastfeeding had been neonatal illness and infant hospitalization in the NICU, as well as maternal illness and hospitalization. During this time to feed the infant was used milk powder after that the baby refused of sucking breast milk:

“My baby was born preterm and was admitted to the NICU for 52 days. From three months of formula feeding, the baby has not learned to suck well . . . the doctor said to give formula to the baby because a lot of saliva means the baby is suffering from reflux and clogging and has a soft larynx.” “I was sick; I had a fatty liver and jaundice. I did not have a lot of patience since after discharge.”

(2) Health care system

Hospital-related problems

The problems related to hospital stay were classified into two categories based on importance and the discontent that most of the mothers experienced.

(a) Providing educational services related to breastfeeding

The overwhelming majority of mothers stated that they need lactation training during pregnancy and especially after childbirth by caregivers and health workers. Unfortunately, the training is not done; even the guides are incomplete and fast. Also, mothers believed that if lactation training was done properly, it would lead to successful lactation and prolong breastfeeding:

“After I gave birth, education in the hospital was not good; information dissemination was performed too fast, and I was unsatisfied with the hospital personnel . . . Giving us books, packages, or training would have surely helped . . . colostrum is especially important, but hospital personnel said nothing about it . . . Before I was taught, I had problems with breastfeeding.”

(b) Problems related to the behaviors of hospital staff

More mothers reported that medical staff has not a proper therapeutic relationship with mothers and do not do the necessary guides, adequate attention, and care to the mothers:

"Some nurses do not have a good relationship with mothers, some of the doctors are not specialists, and encounters with the student interns or residents were very bad . . . after delivery, I was nervous because of the behaviors of the personnel regarding how to achieve emotional contact with my child . . . I did not have enough time to breastfeed because they told me to hurry up . . . I did not learn anything. I was hospitalized for eight days, I got a fever, and they did not tell me I should squeeze my breast . . . they did not care for the patients and did not provide the information asked of them.”

Breastfeeding problems related to cesarean delivery

Mothers who had cesarean stated that due to bleeding, pain, and the use of antibiotic medicine, the possibility of lactation was difficult. From the beginning, power milk was used to feed the baby, which led to the discontinuation of breastfeeding:

“After giving birth, I was bleeding from the cesarean procedure, and the pain that came with giving milk was too much trouble for me . . . I could not get up and was uncomfortable giving milk because cesarean delivery makes breastfeeding difficult. I took a lot of antibiotic pills after my cesarean delivery, so my milk dried up.”

(3) Emotional and psychosocial aspects of breastfeeding

Emotional support from husband and family

Most mothers stated that the support of their families and especially their husbands' play an important role in lactation and its duration because this support leads to calm and a sense of security in the mother:

“People around me helped . . . my husband and others prolonged the lactation period . . . Self-reliance, peace, family support, and my husband . . . helped me to give milk better . . . I had seen breastfeeding in my family. Family encouragement is

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important."

Dislike of breastfeeding in public places

Some mothers stated that they do not like breastfeeding at public places and parties and tend to use formula at these places:

"Breastfeeding in public places is very hard and uncomfortable, especially when I go out and attend a party . . . I always hated the fact that everywhere, you must pull your dress up to breastfeed in outdoor spaces; therefore, I give formula."

Stress and mental pressure

Most mothers said that after delivery, they felt depressed, anxious, severely stressed, and angry. They felt that their mood had fallen sharply and got frustrated. Also, they felt they could not take care of themselves and their infants, even though they would not have the ability to breastfeed their infants. They had a negative and pessimistic attitude toward themselves, others, and their newborns:

"I like to be alone; now, I get angry very easily and cry. I always fight with my husband. Before the delivery, I did not have these symptoms. I have so much stress when breastfeeding. I am very afraid. From nighttime to morning, I hear the baby and stay awake up until the morning . . . already very stressed, and I said to myself, maybe I do not have milk, and so I was forced to give formula . . . I had psychological problems and used nerve medicine with medical supervision; I cut my milk production."

Maternal employment

The employment mothers reported that employment is the main reason for the use of formula and early cessation of breastfeeding:

"I am employed; because of the distance of my work from my home, I could not give milk."

Discussion

The results revealed the causes and factors involved in problems related to breastfeeding. Some of the problems identified were associated with the physical and psychological conditions of the mothers, others were related to the health care system, and the rest were related to the psychological, social, and emotional aspects of breastfeeding. The third category is the most important, yet it has received less attention from health practitioners and health care systems. The results of the focus group sessions and interviews indicated that concerning the physical domain, the most common deterrents to lactation in nursing mothers were poor health, lack of proper nutrition among mothers, problems related to nipples, insufficient breast milk, and maternal and fetal illnesses.

In a study conducted, the most important factors for the lack of continuity and cessation of breastfeeding before 24 months of infant age were parents' concerns about developmental delays and inadequate breast milk, which were doubt about the adequacy of milk and feelings of restriction during breastfeeding. These studies revealed that the most common cause of breastfeeding cessation was lack of milk supply (99.7%), and the most important driver of complementary feeding was inadequate breast milk (92.7%); 72.1% of the reasons were related to doctors' recommendations, and 68.5% of the mothers reported that their children cry because of inadequate breast milk. The authors found a statistically significant difference between the type of delivery and the age of onset of complementary feeding (P = 0.016). The most important factors for the early discontinuation of exclusive breastfeeding were mistaken beliefs regarding breast milk inadequacy symptoms that doctors explained. These findings emphasize the need for maternal education regarding breastfeeding during pregnancy and continuing medical education programs.[14-19] About results obtained from studies, it seems that according to the study that we did, the belief in the inadequacy of breast milk is one of the reasons for the cessation of breastfeeding.

Another commonly reported barrier to

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breastfeeding is nipple soreness, which can lead to breast pain and thus motivate mothers to stop breastfeeding. Nipple pain is the second leading cause of early cessation of breastfeeding among mothers who report breast pain and inadequacy of milk supply. Researchers estimated that 80% to 90% of lactating women experience sore nipples and that 26% suffer from cracked nipples and severe pain. This pain occurs during the first week after a normal delivery, reaches its peak after three to six days, and then typically decreases. After the third day of delivery, nipple pain usually improves, but according to most experts, this is a self-limited process without specific treatment. Some reports indicated that more than a third of mothers who experience these symptoms possibly changed feeding methods in the first six weeks after childbirth. Burning pain in nipples often occurs at the beginning of breastfeeding, but attempts to delay breastfeeding or initiate bottle feeding will cause more breast swelling and ulceration, painful, cracked, blistered, fractured, bruised, or bleeding nipples in women who breastfeed is usually a sign of incorrect breastfeeding position.[17-19] About results obtained from studies, it seems that according to the study that we did, nipple pain is another one of the reasons for the cessation of breastfeeding.

In the assessment of the health system in Yazd City, it was found that mothers who delivered their babies by the cesarean method were significantly less successful in breastfeeding than those who delivered their children normally. The mean duration of breastfeeding by women who underwent normal delivery and cesarean delivery were 5.4 and 4 months, respectively. The women also significantly differed in terms of breastfeeding during the first hour after birth. The formula was used more frequently for infants born through cesarean delivery than those born through natural delivery. The results reflected that cesarean delivery plays a major role in the delay of the onset of breastfeeding, the discontinuation of exclusive breastfeeding, and the initiation of formula feeding. Efforts to reduce cesarean deliveries, training, and empathizing with mothers at the beginning of lactation can increase the rate of successful breastfeeding.[15] Also, regarding our study compared to other studies, the results are equal. Cesarean section is another reason for the cessation of breastfeeding.

A study on the effects of supportive midwifery care on exclusive breastfeeding by nulliparous women was conducted in Mashhad City. The results showed that exclusive breastfeeding in the fourth and sixth weeks postpartum was significantly more prevalent in the supportive care group than in the traditional care group (P = 0.023 and P = 0.017, respectively), indicating that midwifery support positively affects breastfeeding.[20]

In his study in Kashan City, Almasi found that exclusive breastfeeding was significantly related to maternal education, child weight at birth, child weight loss, type of delivery, birth order, father's job, and growth chart. Considering the low rate of exclusive breastfeeding and the factors affecting it, raising the level of awareness and knowledge of mothers, pregnant women, and their families can effectively increase the practice of exclusive breastfeeding in the studied region.[21] According to the results, it seems the supportive system plays an important role in lactation and its continuity.

However, another factor associated with continued breastfeeding is a child's refusal to drink breast milk. The study showed that 17% of infants refuse to consume breast milk for unknown reasons; perhaps such refusal is due to a mother's lack of knowledge regarding correct breastfeeding methods.[22]

Several studies also showed that employment is a factor in the early cessation of breastfeeding. In a study in Babel, the average period of exclusive breastfeeding among mothers who work outside the home is less than a month,

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the period that housewives devote to this practice.[23] Arikpo et al. probed into the factors related to the continuation or cessation of breastfeeding in children less than one year of age. They found a significant association between mothers' employment outside the home and breastfeeding duration.[24] According to the results, it seems that employment is important in lactation and its continuity.

Breastfeeding is a complex phenomenon, and its duration is influenced by demographic, physical, social, and psychological factors. Pregnant women with low confidence are three times more likely to cease breastfeeding in the first six months after childbirth. Researchers suggested that the low efficacy of treatments for maternal and infant colic is related to susceptibility to depressive moods.[25] In a review of depression and breastfeeding, Dias et al. (2014) found that depression during pregnancy reduces the duration of breastfeeding. Similar findings were presented in other work; not only does depression during pregnancy lead to short-term breastfeeding, but it also increases the likelihood of depression after childbirth.[26] In all studies, postpartum depression was associated with breastfeeding duration. Breastfeeding is a mediating factor for postpartum depression and pregnancy. In a cohort study on the relationship between breastfeeding and psychological symptoms (anxiety and depression), breastfeeding cessation was associated with anxiety and depression before delivery, and that anxiety and postpartum depression could predict breastfeeding cessation.[27] The cessation of breastfeeding also increased the risk factors for anxiety and depression.[28–38]

Therefore, psychological and social factors play a very important role in lactation and its continuity.

In research conducted in other countries, the deterrents to successful breastfeeding included lack of breast milk, maternal weight gain, negative attitudes toward breastfeeding, lack of confidence in the ability to breastfeed, early breastfeeding problems, low maternal and paternal educational attainment, maternal depressive symptoms, sleep deprivation, fatigue, stress, maternal employment problems, lack of family support, lack of professional advice, and lack of support from fathers.[39-48] The three most important and most commonly occurring problems were sore nipples, inadequate breast milk, and problems with latching. Additionally, maternal personality traits, spiritual and physical support from family and friends, and support from experts and doctors were the most important factors that positively affect breastfeeding.[49]

The investigation involved only the government hospitals, health centers, and middle-class mothers in Tehran. Future research should include women of different social and economic backgrounds and women from rural areas and small towns because these individuals may have different feelings and experiences regarding breastfeeding. Despite this limitation, the results can nonetheless serve as a source of useful information for public health professionals and policymakers who are interested in the background of breastfeeding in Tehran.

Conclusion

The most important factors for cessation and reduction of breastfeeding in the present study include physical problems, insufficient nutrition, nipple pain and wounds, insufficient mother's milk, cesarean section, mother-child disease, lack of support from husband and family, stress, and psychological problems, being employed, and problems related to the health system such as lack of lactation training and lack of appropriate communication medical staff with mothers.

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Competing interests

The authors declare that they have no competing interests.

References

1. Kamali Z, Rasouli B , Roodpeyma SH, Haji Mirsadeghi Z , Eivani MJ. Assessment of breastfeeding and related factors in three hospitals of Tehran. Iranian Journal of Nutrition Sciences & Food Technology. 2013;7(5):125–34.
2. Victora C, Bahl R, Barros A, Horton S, Krasevec J, Murch S, et al. Breastfeeding in the 21st century: Epidemiology, mechanisms and lifelong effect. Lancet. 2016;387(10017):475–90. https://doi.org/10.1016/S0140-6736(15)01024-7.
3. El-Kak F, Kabakian-Khasholian T, Ammar W, Nassar A. A review of maternal mortality trends in Lebanon, 2010–2018. Int J Gynecol Obstet. 2020;148:14–20. https://doi.org/10.1002/ijgo.12994.
4. Oueidat H, Charafeddine L, Nimer H, Hussein H, Nabulsi M. Knowledge and attitudes of Lebanese women towards Baby-Friendly Hospital Initiative practices. PLoS One. 2020;15(9):e0238730. https://doi.org/10.1371/journal.pone.0238730.
5. Dalili H, Farsar A, Barakati H, Raji F, Shariat M, Pourmalek F. Frequency of exclusive breastfeeding and its affecting factors in Tehran, 2011. Acta Med Iran. 2014;52(7):552–6.
6. Nayeri F, Shariat M, Dalili H, Raji F, Karimi A. Breastfeeding status and effective factors in 21 - 27 months Iranian infants. Open Journal of Pediatrics. 2015;5:156–63. https://doi.org/10.4236/ojped.2015.52024.
7. Roostaee F, Tabatabaei SM, Zaboli M, Keykhaie R, Sharifi-Rad J, Shahrak P. Breast-feeding continuation in South-Eastern of Iran: the associated factors. Med Arch. 2015;69(2):98–102. https://doi.org/10.5455/medarh.2015.69.98-102.
8. Poorahmad-Garbandi F, Salaezade M, Etehad R. Reasons for termination of breastfeeding among women referred to Bandar- Abbas health centers. Journal of Preventive Medicine. 2014;1(1):16–22.
9. Tang K, Wang H, Hui Tan Sh, Xin T, Qu X, Tang T. Association between maternal education and breastfeeding practices in China: a population-based cross-sectional study. BMJ Open. 2019;9(8):e028485. https://doi.org/10.1136/bmjopen-2018-028485.
10. Lyons KE, Anthony Ryan C, Dempsey EM, Ross RP, Stanton C. Breast milk, a source of beneficial microbes and associated benefits for infant health. Nutrients. 2020;12(4):1039. https://doi.org/10.3390/nu12041039.
11. Manhire KM, Williams SM, Tipene-Leach M, Baddock SA, Abel S, Tangiora A. Predictors of breastfeeding duration in a predominantly Māori population in New Zealand. BMC Pediatr. 2018;18:299. https://doi.org/10.1186/s12887-018-1274-9.
12. Jewett Nieuwoudt S, Ngandu CB, Manderson L, Norris SA. Exclusive breastfeeding policy, practice and influences in South Africa, 1980 to 2018: A mixed-methods systematic review. PLoS One. 2019;14(10):e0224029. https://doi.org/10.1371/journal.pone.0224029.
13. Iman MT, Noushadi MR. Qualitative Content Analysis. Pazhuhesh. 2012;3(2):15-44.
14. Yaghini O, Khameh S, Danesh F, Modaresi MR, Saneian H . Investigation about Involved Factors in Breast Feeding. Journal of Isfahan Medical School. 2011;28(17):1126–39.
15. Sharifi P, Nouraei S, Sharifi N. Factors affecting the choice of type of delivery with breastfeeding in Iranian mothers. Electron Physician. 2017;9(9):5265–9. https://doi.org/10.19082/5265.
16. Zare PA, Sayadi M, Moradi F, Mohammadi S. The pattern of complete weaning and its related factors in Fars province. Journal of Jahroum University of Medical Sciences. 2013;11(2):31–7.
17. Joseph HM, Emery RL, Bogen DL, Levine MD. The Influence of smoking on breastfeeding among women who quit smoking during pregnancy. Nicotine Tob Res. 2017;19(5):652–5. https://doi.org/10.1093/ntr/ntw254.
18. Salehi Nia H, Sabet Birjandi S. Do cream Calendit – E :decrease pain in breast mothers breastfeeding? Modern Care Journal. 2013;10(2):91–2.
19. Kazemirad M, Khodakarami N, Kazemi M, Salamzadeh J, Nasiri N, Moattar F. Comparison between Calendit-E cream and expressed breast milk in nipple pain treatment in breastfeeding women. Modern Care J. 2013;9(3):199–207.
20. Kordi M, Bakhshi M, Tara F, Mokhber N, Ebrahim Zade. The effect of midwife' supportive care during labor on exclusive breastfeeding in primipara women. Birjand University of Medical Sciences. 2010;17(2):79–86.
21. Almasi H, Saberi HR, Moravveji AR. The pattern of exclusive breastfeeding in neonates under healthcare in health centers of Kashan city during 2006. Feyz. 2010;14(2):163–8.
22. McDonald SD, Pullenayegum E, Chapman B, Vera C,Giglia L, Fusch C, et al. Prevalence and predictors of exclusive breastfeeding at hospital discharge. Obstet Gynecol. 2012;119(6):1171–9. https://doi.org/10.1097/AOG.0b013e318256194b.
23. Summers A, Bilukha O. Suboptimal infant, and young child feeding practices among internally displaced persons during conflict in eastern Ukraine. Public Health Nutr. 2018;21(5):917–26. https://doi.org/10.1017/S1368980017003421.
24. Arikpo D, SewanuEdet E, Chibuzor MT, Odey F, Caldwell DM. Educational interventions for improving primary caregiver complementary feeding practices for children aged 24 months and under. Cochrane Database Syst

Rev. 2018;2018(5):CD011768. https://doi.org/10.1002/14651858.CD011768.pub2.
25. Mehrparvar S, Varaeneen M. Investigation of decreasing causes ofexclusive breastfeeding in children below six months old, in Kerman City. Journal of Jahroum University of Medical Sciences. 2013;11(2):45–51.
26. Dias CC, Figueiredo B. Breastfeeding and depression: A systematic review of the literature. J Affect Disord. 2014;28(171):142–54. https://doi.org/10.1016/j.jad.2014.09.022.
27. Ystrom E. Breastfeeding cessation and symptoms of anxiety and depression: A longitudinal cohort study. BMC Pregnancy Childbirth. 2012;23;12:36. https://doi.org/10.1186/1471-2393-12-36.
28. Jafari AM, Fadakar SR, Ghavi A, Ahmad SBM. Related factors to continued breastfeeding in infants. Holistic Nursing and Midwifery Journal Guilan university of Medical sciences 2014;24 (72):1–8.
29. Abedini Z, Ahmari Tehran H, Khorrami Rad A. Calorie intake and the related factors in lactating mothers referring to health centers. J Mazandaran Univ Med Sci. 2012;21 (86):271–8.
30. Rahmatnejad L, Bastani F. Factors associated with discontinuation of exclusive breast feeding by first time mothers**.**Iran Journal of Nursing. 2011;24(71):42–53.
31. Naser-pur F, Nouhjah S, Sharifat R. Pattern of exclusive breastfeeding and related factors in children attending health centers of Omidieh city in 2010. Jentashapir. 2012;3(2):118–24.
32. Mehrparvar SH, Varzandeh M. Investigation of decreasing causes of exclusive breastfeeding in children below six months old, in Kerman city during 2008-2009**.** Journal of Fasa University of Medical Sciences. 2011;1(1):45–52.
33. Nilsson IMS, Kronborg H, Rahbek K, Strandberg-Larsen K.The significance of early breastfeeding experiences on breastfeeding self-efficacy one week postpartum. Matern Child Nutr. 2020;16(3):e12986. https://doi.org/10.1111/mcn.12986.
34. Galipeau R, Baillot A, Trottier A, Lemire L. Effectiveness of interventions on breastfeeding self-efficacy and perceived insufficient milk supply: A systematic review and meta-analysis. Matern Child Nutr. 2018;14(3):e12607. https://doi.org/10.1111/mcn.12607.
35. Almasi H, Saberi HR, Moravveji SAR. The pattern of exclusive breastfeeding in neonates under health cares in health centers of Kashan city during 2006. Feyz. 2010;14(2):163–8.
36. Moore ER, Bergman N, Anderson GC, Medley N. Early skin-to-skin contact for mothers and their healthy newborn infants. Cochrane Database Syst Rev. 2016;2016(11):CD003519. https://doi.org/10.1002/14651858.CD003519.pub4.
37. Tadesse F, Alemayehu Y, Shine S, Asresahegn H, Tadesse T. Exclusive breastfeeding and maternal employment among mothers of infants from three to five months old in the Fafan zone, Somali regional state of Ethiopia: a comparative cross-sectional study. BMC Public Health. 2019;19:1015. https://doi.org/10.1186/s12889-019-7345-5.
38. Rafizadeh R, Heidari Z, Karimy M, Zamani-Alavijeh F, Araban M.Factors affecting breastfeeding practice among a sample of Iranian women: a structural equation modeling approach. Ital J Pediatr. 2019;45:147. https://doi.org/10.1186/s13052-019-0724-9.
39. Fair FJ, Ford GL, Soltani H. Interventions for supporting the initiation and continuation of breastfeeding among women who are overweight or obese. Cochrane Database Syst Rev. 2019;2019(9):CD012099. https://doi.org/10.1002/14651858.CD012099.pub2.
40. Tadesse K, Zelenko O, Mulugeta A, Gallegos D. Effectiveness of breastfeeding interventions delivered to fathers in low and middle-income countries: A systematic review. Matern Child Nutr. 2018;14(4):e12612. https://doi.org/10.1111/mcn.12612.
41. Vaughn LM, Ireton C, Geraghty SR, Diers T, Niño V, Falciglia GA. Sociocultural influences on the determinants of breast-feeding by Latina mothers in the Cincinnati area. Fam Community Health. 2010;33(4):318–28. https://doi.org/10.1097/FCH.0b013e3181f3b2be.
42. Shariat M, Abedinia N. The effect of psychological intervention on mother-infant bonding and breastfeeding. Iranian Journal of Neonatology. 2017;8(1):7–15.
43. Karimi A, Bagheri S, Khadivzadeh T, Mirzaii Najmabadi KH. The effect of an interventional program based on the Theory of Ethology on infant breastfeeding competence. Iranian Journal of Neonatology. 2014;5(3):10–2.
44. Saeidi R, Tafazoli M, Gholami M, Mazloom R. New treatment for nipple soreness in breastfeeding mothers: A clinical trial study. Iranian Journal of Neonatology. 2015;6(2):48–51.
45. Manhire KM, Williams SM, Tipene-Leach D, Baddock SA, Abel S, Tangiora A. Predictors of breastfeeding duration in a predominantly Māori population in New Zealand. BMC Pediatr. 2018;18:299. https://doi.org/10.1186/s12887-018-1274-9.
46. Maycock BR, Scott JA, Hauck YL, Burns SK, Robinson S, Giglia R. A study to prolong breastfeeding duration: design and rationale of the Parent-Infant Feeding Initiative (PIFI) randomized controlled trial. BMC Pregnancy Childbirth. 2015;15:159. https://doi.org/10.1186/s12884-015-0601-5.
47. Mukuria AG, Martin SL, Egondi T, Bingham A, Thuita FM. Role of social support in improving infant feeding practices in Western Kenya:

A quasi-experimental study. Glob Health Sci Pract. 2016;4(1):55–72. https://doi.org/10.9745/GHSP-D-15-00197.

49. Flood JL. Breastfeeding supports and services in rural Hawaii: Perspectives of community healthcare workers. Nurs Res Pract. 2017;2017:6041462. https://doi.org/10.1155/2017/6041462.