

# Breastfeeding status during the first two years of infants' life and its risk factors based on BASNEF model structures in Isfahan

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## ABSTRACT

**Background:** Breastfeeding depends on social and cultural conditions of societies. Behavior, Attitude, Subjective Norms, Enabling Factors (BASNEF) model is one of the comprehensive models of behavior study, especially in developing countries. This study was performed to investigate the status of breastfeeding during the first two years of infants' life and its risk factors through BASNEF model structures. **Materials and Methods:** In this cross-sectional descriptive-analytical study, 406 mothers with 6-24-month-old babies were selected by multistage cluster sampling method. The data were collected using a questionnaire with five sections based on the BASNEF model structures. Demographic characteristics of the studied population were also recorded and analyzed using Chi-square tests and analysis of variance in SPSS<sub>18</sub> statistical software. **Results:** The prevalence of breastfeeding was 86.4% (351 mothers). Three hundred and thirty three mothers (82%) had good knowledge and there was a significant relationship between knowledge and breastfeeding behavior of mothers ( $P < 0.05$ ). Two hundred and eighty five mothers (70.2%) had good and very good attitude in this regard. There was no significant relationship between attitude and breastfeeding behavior of mothers ( $P > 0.05$ ). There was a significant relationship between breastfeeding behavior of mothers and subjective norms of husbands, mother and mother-in-law ( $P < 0.05$ ); however, no significant relationship was found with regard to enabling factors ( $P > 0.05$ ). Moreover, no significant relationship was observed between type of children nutrition and variables of delivery mode, maternal age and number of children ( $P > 0.05$ ). **Conclusion:** In addition to knowledge of nursing mothers, supports and encouragement of husbands, mothers and mother-in-laws, as subjective

norms of behavior, have a positive impact on the breastfeeding behavior of mothers. Thus, breastfeeding programs should pay more attention to the role of these mentioned factors.

**Key words:** BASNEF model, breastfeeding, enabling factors, infant, subjective norms

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## INTRODUCTION

Breastfeeding has many benefits for mothers and infants. The rates of gastrointestinal and respiratory diseases, eczema,

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obesity, middle ear infection (otitis media), and allergies are higher in the infants who are fed with baby formulas.<sup>[11-6]</sup> Also, the mothers who have not breastfed their infants are at the risk of breast cancer and osteoporosis.<sup>[7,8]</sup> The levels of exclusive breastfeeding and its continuity are different in different countries and cultures. A wide range of factors affects mothers' decision with regard to breastfeeding and its continuity which are related to cultural and social factors, policies, media, psychological factors, availability of health services, and social protection.<sup>[9,10]</sup> World Health Organization has recommended the exclusive breastfeeding in the first 6 months and its continuity until two years to all countries.<sup>[11]</sup>

To succeed in healthy behavior change, health trainers should be aware of the factors affecting the formation of a behavior and theories will help this process. One of the models used for recognizing the behavior of the individuals is BASNEF<sup>1</sup> model which is a comprehensive model for studying behaviors. This model is used to study behavior, plan its change and determine the factors affecting the individuals' decision for a behavior.

According to this model, an individual turns to a new behavior when s/he believes that the behavior has some health, economic or other benefits (individual's belief and evaluation of the outcomes of that behavior). Then, this evaluation leads to the formation of an attitude toward the behavior in that individual (attitude to the behavior). Furthermore, there are important people in the individual's life that can affect his/her decision with regard to adopting that new behavior and act as a barrier or a facilitator (subjective norms). The subjective norms of an individual also are determined by normative beliefs; i.e. the extent to which the new behavior is approved or rejected by those who are important for him/her. The combination of attitude toward the behavior and abstract norms leads to the formation of a decision for adopting a new behavior (behavioral intention); however, factors like skill, money, cost, etc., can be influential in changing behavioral intention to a behavior; these factors must already be present for a behavior to be formed (enabling factors) [Figure 1].

In addition to the individual, this model emphasizes the impact of family, society and national levels in the formation of a behavior; also, it is essential to consider educational, economic, social and political changes for adopting a behavior.<sup>[12,13]</sup>

Bertini *et al.* showed that subjective norms like husband's attitudes, friends and health staff influence the beginning and continuity of breastfeeding.<sup>[14]</sup> The results of the study conducted by Brown *et al.* in England revealed that the acceptance of breastfeeding as a norm in the society and the presence of social support for mothers are determining in terms of continuing breastfeeding.<sup>[15]</sup> Research has shown that no studies have been done on the breastfeeding behavior based on BASNEF model structures in Iran. This study aimed to investigate breastfeeding status in the first two years of infants' life and its influencing factors through BESNEF model structures.

<sup>1</sup>Behavior, Attitude, Subjective Norms, Enabling Factors

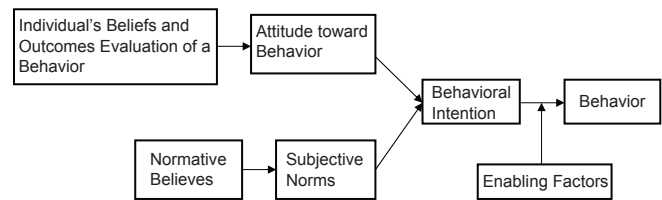


Figure 1: A schematic view of BASNEF model

## MATERIALS AND METHODS

This was a cross-sectional descriptive and analytical study. The research population included 450 mothers with 6-24-month-old infants in the city of Isfahan in 2009. Sampling was done using a multistage cluster sampling method. After calculating the number of clusters, 9 health centers were randomly selected. The sample volume was estimated for the ratio of 88% with the confidence and accuracy levels of 95% and 0.03, respectively. The inclusion criterion was the mothers who had 6-24 month old infants, had active health care records in the health database and were interested in participating in the study. In order to obtain the studied samples, the selected databases were referred to and the ones with active records were randomly selected. Then, they were informed of the aims of the study on the phone and were invited to take part in it. In the case of their acceptance, the date and time of an appointment were determined with the agreement of both parties and they were given the questionnaire at the due date. This questionnaire consisted of five sections including demographic information (8 questions), questions on the level of knowledge (8 questions), questions on attitude (9 questions), questions on subjective norms (6 questions), and questions on enabling factors (6 questions). The questions related to knowledge level had three options (yes, no, I do not know); 1 for 'yes', 0 for 'no' and 'I do not know'. After rating the mothers' knowledge, they were divided to five groups of very weak, weak, average, good and very good. As for the attitude questions, a Likert scale was used (rating from "completely agreed" to "completely disagreed") to give scores from zero to 4 respectively; reverse statements received reverse scoring. After rating the attitudes, the mothers were divided to five groups of very weak, weak, average, good, and very good.

To measure enabling factors, four yes/no questions were designed in which 'yes' was given 1 and 'no' zero. Subjective norms were measured by a question in the questionnaire which asked mothers to prioritize the importance of husband, mother, mother-in-law, friends, staff of health center, and doctor with regard to her breastfeeding. The validity and reliability of this questionnaire was approved in the study by Sharifirad *et al.*<sup>[16]</sup> The collected data were analyzed using SPSS<sub>18</sub> statistical software and Chi-square test and ANOVA were used for comparing the analyzed variables.

## RESULTS

In general, 406 mothers with 6-24-month-old infants were investigated (the response rate was 90.2%). The mean and

standard deviation of the age of mothers and number of children were 27.79 + 4.7 years and 1.63 + 0.81 children, respectively. The average age rate of infants was 12.50 + 5.06 months. Four point two percent of fathers and 4.2% of mothers were illiterate. Twenty one point nine percent of mothers and 29.6% of fathers did not have any high school diploma while 53.2% of mothers and 45.2% of fathers had a high school diploma and 20.7% of mothers and 21.2% of fathers had academic education. Ninety four point one percent of mothers were housewives and 5.9% were employed. The delivery mode of 35.7% was natural and 64.3% cesarean. The prevalence of breastfeeding was 86.4%, baby formula was 6.4% and both (baby formula along with breastfeeding) were 7.2%.

Most mothers (82%) had appropriate knowledge about breastfeeding [Table 1].

Also, most of them (70.2%) had an optimal attitude toward breastfeeding.

The breastfeeding mothers had higher attitude and knowledge scores compared with other two groups (baby formula and both), which was statistically significant based on ANOVA statistical test for the knowledge score ( $F = 8.209, P < 0.001$ ); however, although the mean score was high for the attitude, it was not statistically significant ( $F = 1.758, P = 0.174$ ).

In terms of enabling factors, appropriate responses of the staff (86.2%) and mass media (77.8%) were used more often than other cases [Table 2].

The Chi-square test revealed no statistically significant relationship between enabling factors and type of infant feeding ( $P > 0.05$ ).

Practical education was the method through which most of the mothers had learned breastfeeding (37.9%); then, movie and photo demonstration had 10.6% frequency. Also, 40.8% of mothers stated that they had received no education.

The priority of subjective norms for the studied mothers was mother, husband, health center staff, doctor, mother-in-law and friends, respectively. The ANOVA statistic test revealed a statistically significant relationship between the feeding type and subjective norms of husband, mother and mother-in-law ( $P < 0.05$ ).

Among the infants that did not continue breastfeeding, the most frequent reasons stated by the mothers included: "lack of breast milk", "infants' crying and restlessness" and "difficulty of breastfeeding" [Table 3].

Based on Chi-square statistical test, there was no statistically significant relationship between delivery mode, mother's educational level and employment on the one hand and

infants' feeding status on the other ( $P > 0.05$ ).

## DISCUSSION

BASNEF model investigates different effective factors for adopting or not adopting a health behavior. The importance of this model is that, while planning and providing the field for change and stability of a behavior, the beliefs and attitudes of the individual in evaluating the results obtained from a

**Table 1: The frequency distribution of knowledge and attitude of the studied mothers about breastfeeding in city of Isfahan in 2008**

Variables	Number	Percentage
Knowledge		
Very weak	5	1.2
Weak	25	6.2
Average	43	10.6
Good	183	45.1
Very good	150	36.9
Total	406	100
Attitude		
Very weak	1	0.2
Weak	16	4
Average	104	25.6
Good	178	43.9
Very good	107	26.3
Total	406	100

**Table 2: Frequency distribution of enabling factors in the breastfeeding behavior of the studied mothers in city of Isfahan in 2009**

Enabling factors	Yes		No	
	Number	Percentage	Number	Percentage
Appropriate response of staff	350	86.2	56	13.8
Mass media	316	77.8	90	22.2
Educational handouts	209	51.5	197	48.5
Educational classes	207	51	199	49
Possibility of phone contact with the health center	151	37.2	255	62.8

**Table 3: The frequency distribution of the reasons for stopping breastfeeding in the studied mothers in city of Isfahan in 2009**

Reason of cutting breastfeeding	Number	Percentage
Lack of breast milk	30	63.9
Infants' crying and restlessness	5	10.6
Difficulty of breastfeeding	5	10.6
Infants' disease	3	6.4
Mothers' disease	3	6.4
Doctor's advice	1	2.1
Total	47	100

behavior or its performance by him/her are considered. In fact, the normative beliefs and subjective norms which lead to a decision for changing and continuing a specific behavior are considered along with the enabling factors<sup>[17]</sup>.

The results of the present study revealed that, in terms of the mothers' knowledge of breastfeeding, 82% of mothers were in a good and very good status. Considering the attitudes of mothers, 70.2% had very good and good attitudes and their high knowledge had affected their performance improvement. As far as attitude was concerned, although the mothers with more optimal attitudes had better performance, this relationship was not significant. These results were in accordance with the findings by Allaei *et al.*<sup>[18]</sup> and Ghaffari *et al.*;<sup>[19]</sup> however, they were not in line with the findings of the study by Mossafaye Khamami *et al.* conducted in Lahijan city;<sup>[20]</sup> they reported less knowledge and no optimal attitudes about breastfeeding. This difference can be attributed to different cultural backgrounds, the time interval between the two studies, and application of different instruments in these two mentioned studies.

In this study, a significant relationship was observed between subjective norms of mother, husband, and mother-in-law and the breastfeeding behavior; but there was no significant relationship between subjective norms of health center staff and friends and breastfeeding behavior, which reveals the importance of intimate people in mother's breastfeeding behavior. So, it can be concluded that, when the encouraging people have a close relationship with the mother, i.e., those who transfer their own experiences to the mother or even the mother herself observes their experiences, a better attitude toward breastfeeding is created in the mother. Therefore, it is recommended that, not only mother education but also family education, especially that of husband and those who are close to the mother (like mother, mother-in-law who are in more influential relationships) should be taken into account in educational and counseling groups. The study of Allaei *et al.* in Tehran revealed that in 24% husband, in 44% the mother's sister or mother and in 32% other friends and relative were influential in breastfeeding.<sup>[18]</sup> In a study in England, husband's support and acceptance of breastfeeding as a social norm, friends' support, participation in educational classes before delivery and postpartum support were the most important factors for beginning and continuing breastfeeding.<sup>[14]</sup> Social expectations were also among the influential factors which affected the continuity of breastfeeding.<sup>[21,22]</sup> In another study in England, it was observed that inconsistency between personal expectations and social norms has led to the social, physical and emotional isolation of those mothers who breastfeed their infants because breastfeeding is not an accepted social norm in a large part of that society.<sup>[23]</sup>

The results of the investigation by Walburg *et al.* which examined the beginning and continuing of breastfeeding in France and Germany revealed that although these two

countries were homogenous in social and economic terms, Germany was significantly higher in terms of beginning and continuing breastfeeding. That was because of the appropriate policies, support, and follow-up of health care staff (nurse and midwife) in Germany while there was no such a supportive system in France.<sup>[24]</sup> The difference between developed countries and Iran in terms of important subjective norms for breastfeeding can be due to different social, cultural and economic structures.

Also, Sweet's study revealed that husbands' support and their proper attitude toward breastfeeding can be influential in continuing breastfeeding for premature infants.<sup>[25]</sup>

Considering the enabling factors, although a considerable percentage of mothers participated in educational classes and used the educational handouts (51%) or were in contact with the health center via phone calling (86.2%), there was no significant relationship between enabling factors and breastfeeding behavior. This can be attributed to the quality of counseling and education and trust among the clients. Moreover, 40.8% of mothers stated that they had received no education for the correct way of feeding. However, the results of the study by Sharifirad *et al.* showed that based on the BASNEF model structures, education and intervention during pregnancy had a significantly positive effect on the mothers' breastfeeding behavior.<sup>[16]</sup> In sum, it can be inferred that in the present study, the role of subjective norms was much more highlighted than enabling factors in terms of breastfeeding behavior.

The results of this study demonstrated that the prevalence of breastfeeding in 6-24-month-old babies in the city of Isfahan was 86.4%. In this study, the highest frequency of stopping breastfeeding was due to the lack of breast milk, infants' crying and restlessness, difficulty of breastfeeding, infants' illness, mothers' illness, and doctor's advice, respectively. In Khazaei *et al.* (2005) which was done in Birjand, the most frequent reason for stopping breastfeeding was lack of breast milk, high blood pressure of mother and infants' illness and hospitalization.<sup>[26]</sup> In another study by Ghaedie Mohammadi *et al.* in Bushehr, the most important reasons for stopping breastfeeding were mothers' employment and infants' crying, restlessness and illness.<sup>[27]</sup> Rostamnejad and Amani undertook a study in 2000 in Ardabil and concluded that the most important reason for early start of complementary feeding was lack of breast milk.<sup>[28]</sup> Considering the results of all these studies which show the lack of breast milk as the main reason for stopping breastfeeding and since mothers' perception of their insufficient milk depends on different factors such as previous experiences of breastfeeding, influence of others, her own knowledge level, her education and the support for breastfeeding, it seems that a special attention should be given to these factors. Seemingly, besides prenatal care and education, postpartum support after delivery and while being discharged from the hospital or maternity can also be influential.<sup>[29]</sup> Khory *et al.*'s study indicated that counseling and educating mothers by midwives or nurses at discharge



from the hospital can lead to the continuity of breastfeeding in the mothers from lower social classes.<sup>[30]</sup>

In the present study, there was no significant relationship between breastfeeding and delivery mode, mother's employment status, age and the number of her living children. The results of different studies have shown that young age is one of the influential factors for the lack of breastfeeding or its early stopping.<sup>[31,33]</sup> However, this factor was not observed in this study, which can be the result of more social supports for the studied mothers. Furthermore, some studies have revealed a significant relationship between caesarean mode and stopping breastfeeding, which was not in parallel with the present study.<sup>[34,35]</sup> The results of the prospective study by Ekhtiari and Emami in Tehran showed that the success in complete breastfeeding was 47% and 70% in the caesarean and natural groups, respectively.<sup>[36]</sup>

One of the limitations of this study was the lack of response of 9.8% of studied mothers which may lead to skewed results. Another limitation was the low possibility of using questionnaires for measuring the actual attitude of studied people, which was partly controlled by making them anonymous. Because of the lack of access to the results of related studies, it is better to conduct complimentary and similar investigations in other places in order to obtain better conclusions.

## CONCLUSION

The results showed that besides knowledge of nursing mothers, encouragement and support of husband, mother and mother-in-law as subjective norms have a positive effect on breastfeeding behavior and that the importance of these factors must be taken into more consideration in breastfeeding programs.

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## REFERENCES

1. Kramer MS, Kakuma R. The optimal duration of exclusive breastfeeding: A systematic review. *Adv Exp Med Biol* 2004;554:63-77.
2. Moore MM, Rifas-Shiman SL, Rich-Edwards JW, Kleinman KP, Camargo CA Jr, Gold DR, *et al.* Perinatal predictors of atopic dermatitis occurring in the first six months of life. *Pediatrics* 2004;113:468-74.
3. Harder T, Bergmann R, Kallischnigg G, Plagemann A. Duration of breastfeeding and risk of overweight: A met analysis. *Am J Epidemiol* 2005;162:397-403.
4. Duncan B, Ey J, Holberg CJ, Wright AL, Martinez FD, Taussig LM. Exclusive breast-feeding for at least 4 months protects against otitis media. *Pediatrics* 1993;91:867-72.
5. Fewtrell MS. The long-term benefits of having been breast-fed. *Paediatrics* 2004;114:97-103.
6. Mai XM, Becker AB, Sellers EA, Liem JJ, Kozyrskyj AL. The relationship of breast-feeding, overweight, and asthma in preadolescents. *J Allergy Clin Immunol* 2007;120:551-6.
7. Breast cancer and breastfeeding: Collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease. *Lancet* 2002;360:187-95.
8. Cumming RG, Klineberg RJ. Breastfeeding and other reproductive factors and the risk of hip fractures in elderly Women. *Int J Epidemiol* 1993;22:684-91.
9. Cooke M, Schmied V, Sheehan A. An exploration of the relationship between postnatal distress and maternal role attainment, breast feeding problems and breast feeding cessation in Australia. *Midwifery* 2007;23:66-76.
10. Spiby H, McCormick F, Wallace L, Renfrew MJ, D'Souza L, Dyson L. A systematic review of education and evidence-based practice interventions with health professionals and breast feeding counsellors on duration of breast feeding. *Midwifery* 2009;25:50-61.
11. WHO. Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003.
12. Salehi M, Kimiagar SM, Shahbazi M, Mehrabi Y, Kolahi AA. Assessing the impact of nutrition education on growth indices of Iranian nomadic children: An application of a modified beliefs, attitudes, subjective-norms and enabling-factors model. *Br J Nutr* 2004;91:779-87.
13. Hubley J. An action guide to health education and promotion. *Communicating Health*. Price: Macmillan Press; 2004.
14. Bertini G, Perugi S, Dani C, Pezzati M, Tronchin M, Rubaltelli FF. Maternal education and the incidence and duration of breast feeding: A prospective study. *J Pediatr Gastroenterol Nutr* 2003;37:447-52.
15. Brown A, Raynor P, Lee M. Young mothers who choose to breast feed: The importance of being part of a supportive breast-feeding community. *Midwifery* 2011;27:53-9.
16. Sharifirad GR, Golshiri P, Shahnazi H, Barati M, Hasanzadeh A, Charkazi AR, *et al.* The impact of educational program based on BASNEF model on breastfeeding. *Behavior of pregnant mothers in Arak*. *J Arak Med Sci Uni* 2010;13:63-70.
17. Hazavehei SMM, Asadi Z, Hassanzadeh A, Shekarchizadeh P. Comparing the effect of two methods of presenting physical education? Course on the attitudes and practices of female students towards regular physical activity in Isfahan University of Medical Sciences. *Iranian Journal of Medical Education* 2008;8:121-31.
18. Alaie N, Faghizadeh S. Relationship of Mother Factors with Mothers' Attitude about Breast Feeding. *J Yasuj Uni Med Sci* 2008;15:31-40.
19. Ghaffari V, Vahidshahi K, Parviniejad N, Ghavanch zade TM. Assessment of mothers' attitude toward exclusive breast feeding, Sari, 2007. *J Jahrom Med School* 2009;7:53-61.
20. Mosaffa H. Survey of the knowledge and attitude of mothers during one year after delivery about breast-feeding. *J Guilan Uni Med Sci* 2004;13:23-31.
21. Hauck YL, Irurita VF. Incompatible expectations: The dilemma of breastfeeding mothers. *Health Care Women Int* 2003;24:62-78.
22. Hauck Y, Langton D, Coyle K. The path of determination: Exploring the lived experience of breastfeeding difficulties. *Breastfeed Rev* 2002;10:5-12.
23. Mahon-Daly P, Andrews GJ. Liminality and breastfeeding: Women negotiating space and two bodies. *Health Place* 2002;8:61-76.
24. Walburg V, Goehlich M, Conquet M, Callahan S, Scholmerich A, Chabrol H. Breast feeding initiation and duration: Comparison of French and German mothers. *Midwifery* 2010;26:109-15.
25. Sweet L, Darbyshire P. Fathers and breast feeding very-low-birthweight preterm babies. *Midwifery* 2009;25:540-53.
26. Khazaei T, Madarshahian F, Hasanabadli M, Kianfar S. Barriers of exclusive breast feeding and related factors in formula-fed infants in Birjand. *J Yasuj Uni Med Sci* 2008;3:35-45.
27. Ghaed Mohammadi Z, Zafarmand MH, Heidari GhR, Anaraki A,

- Dehghan A. Determination of effective factors in breast-feeding continuity for infants less than 1 year old in urban area of Bushehr province. *Iranian South Med J* 2004;7:79-87.
28. Rostamnegan M, Amani F. Unsuccessful breast feeding among women in Ardabil: Probing the reasons, 2000-2001. *J Ardabil Uni Med Sci* 2004;3:31-5.
  29. Wright A, Rice S, Wells S. Changing hospital practices to increase the duration of breastfeeding. *Pediatrics* 1996;97:669-75.
  30. Khoury AJ, Moazzem SW, Jarjoura CM, Carothers C, Hinton A. Breast-feeding initiation in low-income women: Role of attitudes, support, and perceived control. *Womens Health Issues* 2005;15:64-72.
  31. Persad MD, Mensinger JL. Maternal breastfeeding attitudes: Association with breastfeeding intent and sociodemographics among urban primiparas. *J Community Health* 2008;33:53-60.
  32. Griffiths LJ, Tate AR, Dezateux C. The contribution of parental and community ethnicity to breastfeeding practices: Evidence from the Millennium Cohort Study. *Int J Epidemiol* 2005;34:1378-86.
  33. Taveras EM, Scanlon KS, Birch L, Rifas-Shiman SL, Rich-Edwards JW, Gillman MW. Association of breastfeeding with maternal control of infant feeding at age 1 year. *Pediatrics* 2004;114:e577-83.
  34. Rowe-Murray HJ, Fisher JR. Baby friendly hospital practices: Cesarean section is a persistent barrier to early initiation of breastfeeding. *Birth* 2002;29:124-31.
  35. Sheehan D, Krueger P, Watt S, Sword W, Bridle B. The Ontario Mother and Infant Survey: Breastfeeding Outcomes. *J Hum Lact* 2001;17:211-9.
  36. Ekhtiari A, Emami P. Comparison of success rates in breastfeeding after vaginal delivery and cesarean section. *J Islamic Azad Uni Tehran* 2008;18:51-4.

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