

Assessment of infant feeding attitudes of a group of women who attended prenatal education class

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Abstract. *Objective:* To determine infant feeding attitudes of a group of women who attended prenatal education class and to review some variables that are believed to be associated. *Material and methods:* Infant feeding attitudes of the mothers were assessed with the Iowa Infant Feeding Attitude Scale. Mann-Whitney U test and Kruskal-Wallis test were used for the analyses. *Results:* The scores obtained from the Iowa Infant Feeding Attitude Scale by the mothers ranged from 44 to 79 with a mean score of 65.55 ± 5.71 . The women younger than 35 years of age, women whose spouse is 35 years old and older, those with a good family income, those who had postnatal breastfeeding education, those who breastfed their child within the first one hour after childbirth, those who exclusively feed their infant with breast milk for two months and longer, those who breastfed for a total of 12 months and longer, and those who started complementary feeding at 12 months of age and later had higher scores from the Iowa Infant Feeding Attitude Scale. *Conclusion and suggestions:* It can be suggested that a group of mothers who attended prenatal education class had positive infant feeding attitudes in our study.

Keywords: Prenatal education class, infant feeding, Iowa Infant Feeding Attitude Scale

Introduction

Foods which are suitable for physiology of the digestive system and allow optimum growth and development are very important in infant feeding. The most favorable one of such foods is breast milk. The World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) recommend exclusive breastfeeding for the first 6 months and combination of breastfeeding with complementary feeding for the next 1 to 2 years for a healthy nutrition. The ideal method for providing

breast milk is breastfeeding. Breastfeeding is very important not only for the newborn but also maternal and public health. Although breastfeeding is traditional in Turkey and mothers know that breastfeeding is the ideal way of nurturing infants, the most important issue in Turkey as with many other countries is the failure to initiate and maintain breastfeeding (1-6).

Complementary feeding is the process starting when breast milk alone is no longer sufficient, and therefore other foods are needed along with breast milk (7). Although 6th month is the recommended time to initiate complementary feeding for infants having

breast milk, it is recently discussed that initiation of complementary foods at 4th month protects infants against food allergies, coeliac disease and anemia (8). It should be emphasized that cultural, environmental and economic statuses of mothers are important in infant feeding (9).

It is very important for healthcare institutions, decision makers and individuals in the society should support breastfeeding to generalize feeding with breast milk and breastfeeding as well as to provide completely baby-friendly environments (10). Forste et al. reported that breastfeeding attitude of mothers after childbirth, their knowledge on benefits of breastfeeding on infant health and the support they receive from their inner circle are factors affecting the breastfeeding decision (11).

This study was conducted to determine infant feeding attitudes of a group of women who attended prenatal education class and to review some variables that are believed to be associated.

Material and Methods

This is a cross-sectional study conducted at a Training and Research Hospital in Sakarya, Turkey from June 2019 to March 2020.

Approval of Clinical Research Ethics Committee (number 71522473/050.01.04/144) and permission of the institution were obtained to conduct the study.

A questionnaire form was prepared by using the literature in line with the study objective. Questionnaire form included some socio-demographic characteristics of mothers, some characteristics related to their infant, some characteristics related to breastfeeding and items of the Iowa Infant Feeding Attitude Scale.

Minimum number of mothers that should be reached for this study was calculated as 467 through Minitab 16 Statistical Package Software (standard deviation: 1.0, difference: 0.15, alpha: 0.05, power of test: 0.90). The study group consisted of 508 mothers who attended the Prenatal Education Class organized at the Training and Research Hospital during the study, agreed to take part and have at least 1 child. The purpose of the education is to provide skills and information

for antepartum and postpartum period. The education was performed in three 45 min sessions with groups of 8–10 people in the pregnancy education class. Education topics include occurrence of pregnancy, diet during pregnancy and confinement, information on health problems during pregnancy and tips to eliminate them, required tests, prenatal and postpartum exercises, labor, breathing and relaxing techniques to be used during labor, confinement period, breastfeeding and newborn care. The educational materials were prepared as presentations using Microsoft PowerPoint, and visual and written information provided by the Turkish Ministry of Health were used. The education was completed by watching a delivery video after a presentation made by a midwife and a nurse with a certificate in pregnancy education. At the end of the class, the issues about which the women were worried were mutually discussed using the question-and-answer method, and the class was completed.

Interviews with the women were performed at the classes where education was provided. Consent was obtained from the women who agreed to take part in this study after having been informed about the subject and objective of the study. Previously prepared questionnaire forms were completed by the women under supervision. This procedure lasted for approximately 10–15 minutes.

In our study, infant feeding attitudes of the mothers were assessed with the Iowa Infant Feeding Attitude Scale. The scale was developed by De La Mora and Russell in 1999 and its validity and reliability study in Turkey was conducted by Eksioglu et al. in 2015 (1,12). The scale consists of 17 questions on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). 8 items in the scale were reverse scored. The possible score range is between 17 and 85 and higher scores indicate higher positive attitudes on infant feeding.

In our study, family income level of the mothers was assessed as high, medium and low based on their own perceptions. The women who are actively engaged with a revenue-generating business were defined as “employed”.

The data was evaluated in SPSS Statistical Package Program in computer environment. Shapiro-Wilk test was used to determine the normal distribution of

data. Mann-Whitney U test and Kruskal-Wallis test were used for the analyses. Statistical significance value was accepted as $p < 0.05$.

Results

The age of women in the study group ranged from 20 to 41, with a mean age of 28.77 ± 3.50 years. Of the mothers, 21 (4.1%) had primary school, 41 (8.1%) had secondary school, 125 (24.6%) had high school and 321 (63.2%) had university degree. Age of their spouse ranged from 22 to 47 with a mean age of 32.10 ± 3.51 years. Of the spouses, 7 (1.4%) had primary school, 31 (6.1%) had secondary school, 141 (27.8%) had high school and 329 (64.8%) had university degree. Of the children, 428 (84.3%) were the first child in the family. 462 mothers (90.9%) stated that their family income was high. 225 women (44.3%) had a revenue-generating business. The number of women with a history of physician-diagnosed chronic disease was 349 (68.7%). In the study, the scores obtained from the Iowa Infant Feeding Attitude Scale by the mothers ranged from 44 to 79 with a mean score of 65.55 ± 5.71 . The distribution of the scores obtained by mothers in the study group from the Iowa Infant Feeding Attitude Scale by some socio-demographic characteristics is given in Table 1.

Of the infants who were recently born, 255 (46.3%) were boy and 273 (53.7%) were girl. Birth weights ranged from 1750 to 4840 g with a mean weight of 3343.17 ± 435.11 g. 240 women (47.2%) had normal spontaneous vaginal delivery and 268 women (52.8%) had Caesarean section.

In terms of number of children, 428 women (84.3%) in the study group stated that it was their first child and 80 women (15.7%) stated that they have 2 or more children. Of the women, 491 (96.7%) stated that the father is the caregiver of the infant, 405 (79.7%) reported that they had postnatal breastfeeding education and 498 (98.0%) stated that they fed their baby with breast milk within 1-24 hours after delivery. Duration of feeding with breast milk exclusively ranged from 0 to 24 months with a mean duration of 3.10 ± 4.76 months (median: 2 months), duration of feeding with breast milk and complementary food ranged

from 0 to 10 months with a mean duration of 5.51 ± 1.34 months (median: 6 months), and total duration of breastfeeding ranged from 0 to 25 months with a mean duration of 13.76 ± 5.05 months (median: 15 months). The distribution of the scores obtained by mothers in the study group from the Iowa Infant Feeding Attitude Scale by some variables related to infant feeding is given in Table 2.

The mothers in the study group stated that they were encouraged to breastfeed by their spouse (10 women, 2.0%), their mother (4 women, 0.8%), their father (18 women, 3.5%), their sibling (5 women, 1.0%), healthcare professionals (429 women, 84.4%), and other individuals (42 women, 8.3%).

When asked why they stopped feeding breast milk, 207 mothers (40.7%) stated infant refusing to nurse, 49 mothers (9.6%) stated infant not feeling full, 9 mothers (1.8%) stated pregnancy, 27 mothers (5.3%) stated sickness of mother, 157 mothers (30.9%) stated admission to intensive care after delivery and 59 mothers (11.6%) stated multiple reasons.

Discussion

It can be suggested that mothers in the study group had a positive infant feeding attitude based on their score from the Iowa Infant Feeding Attitude Scale. Higher Iowa scores indicate more tendency to breastfeeding by the mothers in the study group. Its reason might be the fact that the study was conducted on mothers who attended the prenatal education class. This result also supports that breastfeeding education provided by healthcare professionals boosts self-confidence of mothers, breastfeeding success and its maintenance (13,14).

In our study, it was determined that mothers in the age group of 35 years and above had lower total Iowa score than mothers in other age groups. Some other studies (15,16) reported no statistically significant correlation between mother's age and level of knowledge on breast milk and breastfeeding. Holbrook (2013) stated that mother's age affects breastfeeding attitude positively (17). Scott et al. (2006) reported that mother's age is not correlated to feeding breast milk exclusively for the first 6 months and is negatively correlated

Table 1. The distribution of the scores obtained by mothers in the study group from the Iowa Infant Feeding Attitude Scale by some socio-demographic characteristics

| Some socio-demographic characteristics | n | Score from the Iowa Infant Feeding Attitude Scale Median (min-max) | Test value z/KW; p |
|---|-----|---|-----------------------|
| Age group | | | |
| ≤ 24 | 49 | 66.0 (54.0-77.0) | 16.287; 0.001 |
| 25-29 | 268 | 65.0 (44.0-79.0) | |
| 30-34 | 164 | 65.0 (58.0-77.0) | |
| ≥ 35 | 27 | 61.0 (57.0-77.0) | |
| Spouse's age group | | | |
| ≤ 29 | 118 | 64.0 (44.0-79.0) | 15.532; 0.000 |
| 30-34 | 286 | 65.0 (55.0-77.0) | |
| ≥ 35 | 104 | 68.0 (56.0-77.0) | |
| Educational status | | | |
| Secondary school and below | 62 | 67.0 (58.0-77.0) | 0.843; 0.656 |
| High school | 125 | 65.0 (54.0-79.0) | |
| University | 321 | 64.0 (44.0-77.0) | |
| Spouse's educational status | | | |
| Secondary school and below | 38 | 65.0 (44.0-72.0) | 2.658; 0.265 |
| High school | 141 | 65.0 (54.0-77.0) | |
| University | 329 | 66.0 (54.0-79.0) | |
| Family income status | | | |
| High | 462 | 65.0 (44.0-79.0) | 2.872; 0.004 |
| Moderate | 46 | 63.0 (57.0-70.0) | |
| Working status | | | |
| Employed | 225 | 67.0 (54.0-79.0) | 5.005; 0.000 |
| Unemployed | 283 | 64.0 (44.0-77.0) | |
| History of a physician-diagnosed chronic disease | | | |
| Yes | 349 | 64.0 (44.0-79.0) | 7.230; 0.000 |
| No | 159 | 68.0 (55.0-77.0) | |
| Total | 508 | 65.0 (44.0-79.0) | |

Table 2. The distribution of the scores obtained by mothers in the study group from the Iowa Infant Feeding Attitude Scale by some variables related to infant feeding

| Some variables related to infant feeding | n | Score from the Iowa Infant Feeding Attitude Scale Median (min-max) | Test value; p |
|--|-----|---|---------------------|
| Number of children | | | |
| First | 428 | 67.0 (44.0-79.0) | 5.141; 0.000 |
| 2 and above | 80 | 63.0 (55.0-72.0) | |

| | | | |
|---|------------|-------------------------|----------------------|
| Caregiver of child | | | |
| Mother | 17 | 77.0 (64.0-77.0) | 4.197; 0.000 |
| Father | 491 | 65.0 (44.0-79.0) | |
| Postnatal breastfeeding education | | | |
| Received | 405 | 67.0 (57.0-77.0) | 2.940; 0.003 |
| Not received | 103 | 65.0 (44.0-79.0) | |
| Time of feeding with breast milk after delivery (hours) | | | |
| Within first 1 hour | 10 | 77.0 (77.0-77.0) | 5.092; 0.000 |
| Within 1-24 hours | 498 | 65.0 (44.0-79.0) | |
| Duration of feeding with breast milk exclusively (months) | | | |
| 1 and below | 115 | 61.0 (44.0-77.0) | 30.071; 0.000 |
| 2 | 278 | 67.0 (54.0-79.0) | |
| 3 and above | 115 | 65.0 (55.0-77.0) | |
| Duration of feeding with breast milk and complementary food (months) | | | |
| 5 and below | 92 | 62.5 (55.0-77.0) | 1.119; 0.263 |
| 6 and above | 416 | 65.0 (44.0-79.0) | |
| Total duration of breastfeeding (months) | | | |
| 11 and below | 110 | 62.0 (44.0-77.0) | 22.304; 0.000 |
| 12-17 | 291 | 67.0 (54.0-79.0) | |
| 18 and above | 107 | 65.0 (56.0-77.0) | |
| Total | 508 | 65.0 (44.0-79.0) | |

to maintenance of breastfeeding until the age of one (3). It is known that breastfeeding attitude is affected by women's prior knowledge and attitudes on breastfeeding (18). This result may suggest that negative experiences may increase with advancing age.

Although there is no significant correlation between mother's educational status and total Iowa score ($p > 0.05$) in the study, the higher mother's educational status is, the lower total Iowa mean scores are. While there are studies reporting that educational status affects the duration of feeding breast milk positively (19-23), some studies suggest that mothers breast-feed shorter when educational increases (16,24). As high educational statuses are associated with working life, breastfeeding might be affected negatively due to mother's returning to working life.

In the study group, it was determined that women with a good family income have higher total Iowa

scores. In the literature, there are studies reporting the positive effect of income status on breastfeeding attitude score (4,25-27). This result shows that women with a good family income have better infant feeding attitudes and supports that socioeconomic status of the family is one of the important determinants for infant's nutrition.

In this study, it was found that total Iowa scores of working mothers were higher than nonworking ones. This result indicates that working mothers have more positive attitudes towards infant feeding. Sittlington J et al. (2007) determined that working increases the scores obtained by mothers from breastfeeding attitude scale. Some studies found that knowledge level of working mothers is higher than that of nonworking mothers (28,29). This result shows that as working affects knowledge levels and social conditions of mothers positively, it also reinforces breastfeeding attitude.

In the study group, total Iowa scores were found to be higher in mothers with no history of a physician-diagnosed chronic disease. Mekuria and Edris (2015) reported that any sickness of mother affects breastfeeding negatively (30). Sickness brings along using medication. Mothers using medication may terminate breastfeeding earlier. Therefore, having a more positive attitude towards infant feeding is an expected result for mothers with no history of chronic disease. This is a noteworthy as it shows the importance of mother's health for feeding attitude.

In our study, it was determined that total Iowa scores decrease when number of pregnancies increases. In the literature, it is reported that mothers experienced in breastfeeding have higher breastfeeding self-efficacy perceptions and breastfeeding success (31,32). Ince et al. (2017) found that mothers experienced in breastfeeding have higher breastfeeding success and reported that experiencing breastfeeding at least once would be sufficient to increase breastfeeding success (33). In the study, mothers who had their first child had more positive infant feeding attitudes suggesting that first pregnancies are generally planned and wanted. It is known that planned pregnancy is an important factor affecting breastfeeding and reinforces mother's breastfeeding desire and attitude (34). Furthermore, this result suggests that breastfeeding attitudes of mothers who had two or more pregnancies might be associated with previous difficulties in breastfeeding.

In the study, it was determined that mothers who received postnatal breastfeeding education had more positive breastfeeding attitude. In the literature, there are studies reporting that breastfeeding education increases both breastfeeding initiation rates and breastfeeding durations (35-37). It supports that breastfeeding is a learned behavior and breastfeeding education is important to develop breastfeeding attitudes.

In this study, when asked why mothers stopped feeding breast milk, 40.7% stated infant refusing to nurse. Other reasons to stop breastfeeding included infant not feeling full, pregnancy and other multiple reasons. This finding suggests that reasons are preventable and breastfeeding duration can be prolonged by providing effective education to mothers.

Mothers in the study group stated that they were most encouraged to feed breast milk by healthcare professionals (84.4%). Providing consultancy, information, support and motivation to mothers by healthcare professionals is very important to initiate and maintain breastfeeding. Healthcare professionals ranking in the first place among people supporting mothers for breastfeeding is considered a positive factor showing the responsibilities of healthcare professionals in this regard.

Conclusion and Suggestions

It can be suggested that a group of mothers who attended prenatal education class had positive infant feeding attitudes in our study. In our study group, the women younger than 35 years of age, those with a good family income, working women, those with no history of chronic disease, mothers who have their first child recently, those who had postnatal breastfeeding education, those who breastfed their child within the first one hour after childbirth, those who exclusively breastfed for two months and longer, those who breastfed for a total of 12 months and longer had more positive infant feeding attitudes. It would be advantageous to ensure that pregnant women are able to attend prenatal education classes regularly and enhance the educational content in order to improve infant feeding attitudes of women.

Limitations

The limitations of the study may include the facts that it is a cross-sectional study, it was conducted on the mothers who presented to one hospital only and it is not possible to establish definitive diagnosis with the scales used.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

Authors' Contributions

Study concept and design: Sahin S, Guler SD, Duzgun AA, Unsal A,

Acquisition of subjects and data: Guler SD, Yuvaci HU

Analysis and interpretation of data: Unsal A, Sahin S, Düzgün AA

Preparation of manuscript: Sahin S, Düzgün AA, Unsal A, Guler SD, Yuvaci HU

All the authors contributed to the writing of the paper. All authors read and approved the final manuscript.

Conflict of Interest Statement

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

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References

- De la Mora A, Russell DW, Dungy CI. The Iowa Infant Feeding Attitude Scale: analysis of reliability and validity. *J Appl Soc Psychol* 1999; 29:2362–80.
- Dungy CI, McInnes RJ, Tappin DM, Wallis AB, Oprescu F. Infant feeding attitudes and knowledge among socioeconomically disadvantaged women in Glasgow. *Matern Child Health J* 2008; 12:313–22.
- Scott JA, Shaker I, Reid M. Parental attitudes toward breastfeeding: their association with feeding outcome at hospital discharge. *Birth* 2004; 31:125–31.
- Sittlington J, Stewart-Knox B, Wright M, Bradbury I, Scott JA. Infant-feeding attitudes of expectant mothers in Northern Ireland. *Health Education Research* 2007; 22: 561–70.
- Global strategy for infant and young child feeding: The optimal duration of exclusive breastfeeding. World Health Organization, 2013.
- Arca G, Isik HK. The role of midwife and nurse in breastfeeding. *University of Health Sciences Journal of Nursing* 2019; 1(3),221–228.
- Selimoglu A. Sağlıkta ve hastalıkta çocuk beslenmesi (Child nutrition in health and sickness). Edition 3, Istanbul, OmurMatbaacilik A.S, 2014.
- Fewtrell M, Wilson DC, Booth I et al. Six months of exclusive breastfeeding: how good is the evidence? *BMJ* 342: 59–55, 2011.
- Samli G, Kara B, Unalan PC et al. Knowledge, beliefs and practices of mothers about breastfeeding and infant nutrition: A qualitative study. *Marmara Medical Journal* 19: 13–20, 2006.
- Jones F, Green M. Baby Friendly Care. *Can Nurse* 1993;89(9):36–9.
- Forste R, Weiss J, Lippincott E. The decision to breast-feed in the United States: does race matter? *Pediatrics* 2001;108(2):291–6.
- Eksioglu A, Yesil Y, Ceber Turfan E. The Translation and Validation of the Iowa Infant Feeding Attitude Scale into Turkish: Validity and Reliability Study. *Journal of Education and Research in Nursing*. 2016; 13 (3): 209–215.
- Koc G, Tezcan S, Can D. Evaluating the knowledge, opinions, and attitudes of mothers regarding the breastfeeding coaching. *Journal of Contemporary Medicine* 2017;7 (2): 175–183.
- Meedy S, Fahy K, Parratt J, Yoxall J. Supporting women to achieve breastfeeding to six months postpartum – The theoretical foundations of a successful program. *Women and Birth* 2015; 28: 265–71.
- Erdem O, Bucaktepe P. The prevalence and screening methods of postpartum depression. *Dicle Medical Journal* 39: 458–61, 2012.
- Calik KY, Cetin FC, Erkaya R. Breastfeeding practices of mothers and influencing practices. *Gumushane University Journal of Health Science* 2017;6 (3): 80–91.
- Holbrook JH, Haselton MG, Schetter CD, Glynn LM. Does Breastfeeding Offer Protection Against Maternal Depressive Symptomatology? A Prospective Study from Pregnancy to 2 Years After Birth. *Archives of Women's Mental Health* 2013;16(5):6–15
- Shaker I, Scott JA, Reid M. Issues and innovations in nursing practice. *Journal of Advanced Nursing* 2004;45(3); 260–26
- Van Rossem L, Oenema A, Steegers EA, Moll HA, Jaddoe VW, Hofman A, et al. Are starting and continuing breastfeeding related to educational background? The generation R study. *Pediatrics* 2009;123(6):e1017–27
- Al-Sahab B, Andrea Lanes, Mark Feldman, Hala Tamim. Prevalence and predictors of 6-month exclusive breastfeeding among Canadian women: a national survey *BMC Pediatrics*. 2010; 10(20):2–9.
- Inanc BB. Breastfeeding related practices of 15–49 years old mothers and influencing factors. *Turkish Journal of Family Practice* 2013;17:51–5. 20.
- Akkoyun S, Arslan FT. Breastfeeding self-efficacy of mothers who breastfed for first six months. *J Pediatr Res* 2016;3(4):191–5 DOI:10.4274/jpr.50469

23. Dogan G. Evaluation of information, attitudes and behaviors of mothers on infant nutrition and postpartum depression status. Baskent University Institute of Health Sciences, Nutrition and Dietetics Program. Master Thesis, Ankara, 2019.
24. Khanal V, Scott J A, Lee AH, Karkee R, Binns, CW. (2015). Factors associated with early initiation of breastfeeding in Western Nepal. *International Journal of Environmental Research And Public Health*, 12(8): 9562–9574.
25. Merten S, Dratva J and Liebrich UA. Do baby-friendly hospitals influence breastfeeding duration on a national level? *Pediatrics* 2005;116(5):702–8.
26. Malini DP, Janel Mensinger. Maternal breastfeeding attitudes: association with breastfeeding intent and socio-demographics among urban primiparas. *Journal of Community Health* 2008, 33(2):53–60.
27. Kylee N. Cox, Roslyn C. Giglia, and Colin W. Binns. The influence of infant feeding attitudes on breastfeeding duration: evidence from a cohort study in rural Western Australia. Cox et al. *International Breastfeeding Journal*. 2015;10(25) :2–9. DOI 10.1186/s13006-015-0048-3.
28. Aytakin A, Sarikaya P, Kucukoglu S. Investigation of the attitudes of working and non-working mothers regarding infant feeding. *The Medical Bulletin of Sisli Etfal Hospital* 2015;49(1):68–75.
29. Cakmak S, Dengi ASD. Assessment of knowledge of postpartum mothers on importance of breastfeeding and breast milk. *Turkish Journal of Family Practice* 2019;23(1):9–19.
30. Mekuria G, Edris M. Exclusive breastfeeding and associated factors among mothers in Debre Markos, Northwest Ethiopia: A cross-sectional study. *J Int Breastfeed* 2015; 10(1):2–7.
31. AlusTokat M, Okumus H. Mothers breastfeeding self-efficacy and success: Analysis the effect of education based on improving breastfeeding self-efficacy. *Journal of Education and Research in Nursing* 2013;10 (1): 21–29.
32. McCarter-Spaulding D, Gore R. Breastfeeding self-efficacy in women of African Descent. *J ObstetGynecol Neonatal Nurs*2009, 38:230–243.
33. Ince T, Aktas G, Aktepe N, Aydin A. The evaluation of the factors affecting mothers' breastfeeding self-efficacy and breastfeeding success. *Journal of Dr. BehcetUz Children's Hospital* 2017, 7(3):183–190
34. Aidam BA, Perez-Escamilla R, Lartey A, Aidam J. Factors associated with exclusive breastfeeding in Accra, Ghana. *European Journal of Clinical Nutrition* 2005;59:789–796
35. Leslie S, Wiles RN. The effect of prenatal breastfeeding education on breastfeeding success and maternal perception of the infant. *Journal of Obstetric, Gynecologic & Neonatal Nursing* 2006; 13(4):253–257. 27.
36. Li-Yin SS, Chien LY, Tai CJ, Lee CF. Effectiveness of a prenatal education program on breastfeeding outcomes in Taiwan. *Journal of Clinical Nursing* 2008; 17(3):296–30.
37. Ugurlu, M, Yavan, T. (2016). The effectiveness of breastfeeding education: an integrative review. *Journal of Behavioral Health*, 5(4), 182–190. doi: 10.5455/jbh.20160224063449