The determination of infant feeding attitudes among Turkish mothers using the Iowa Infant Feeding Attitude Scale

Sumeyra Topal,[1] Hilal Uslu Yuvaci,[2] Unal Erkorkmaz,[3] Nursan Cinar,[4] Sevin Altinkaynak[5]

Abstract

Objective: To assess whether the Iowa Infant Feeding Attitude Scale is a valid and reliable scale for Turkish mothers, and to assess maternal attitudes toward various aspects of infant feeding.

Methods: This methodological, analytical study was conducted at the obstetrics and gynaecology department of Sakarya Training and Research Hospital, Sakarya, Turkey, from June to August 2015, and comprised mothers of newborn babies. Data was collected using the Turkish version of Iowa Infant Feeding Attitude Scale. SPSS 23 was used for data analysis.

Results: There were 391 participants in the study. Five items of the original Iowa Infant Feeding Attitude Scale were excluded due to the low correlation with the scale integrity (Cronbach's alpha=0.67). The total mean score of the mothers was 48.11±6.57. A statistically significant difference was found between the educational status, having social security, what the mothers having other children fed these children in the first 6 months and family types (p=0.05 each). Significant difference was also found between the mothers only breastfeeding and the mothers feeding with mother's milk and formula (p=0.008).

Conclusion: The scale was found to be culturally acceptable, reliable and valid scale for Turkish mothers.

Keywords: Iowa Infant Feeding Scale, Psychometric properties, Infant feeding Maternal attitudes. (JPMA 67: 1567; 2017)

Introduction

Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. Mother's milk is the most appropriate food for infants. There is no other food to replace it.[1] The importance of breastfeeding for the essentials of the life to be founded at the beginning is indisputable, and also it has positive effects on health after the breastfeeding period.[2] Many studies have demonstrated that breastfeeding decreases morbidity and mortality for the first year of newborns' life.[3]

Despite these advantages of human milk, the ratio of mere breastfeeding for the first six months is under expected values in Turkey, just as in other countries of the world.[4-6] In Turkey, most mothers start breastfeeding in the post-partum period and continue to breastfeed during the first six months, but the practice of supplementary feeding is widespread. According to the 2013 Turkey Demographic and Health Survey report, 50% of the babies started to be breastfed in the first hours following the delivery, of which 52% of the babies were only breastfed in the first two months of their lives. However, this percentage decreases as the babies grow and it falls to 10% among the babies of 4-5 months age.[7]

As a result, the breastfeeding status of newborns' mothers should be evaluated soon after birth. There is a need for an objective diagnostic instrument that can be applied quickly and can measure maternal knowledge about and attitudes to breastfeeding. For the purpose of investigating the infant feeding attitudes of parents, the Iowa Infant Feeding Attitude Scale (IIFAS) was developed by Mora and Russell.[8]

The IIFAS has persistently demonstrated very good internal consistency, reliability and validity in measuring maternal attitude towards infant feeding methods and predicting breastfeeding intention and exclusivity in different cultures such as Japanese,[9] Romanian,[10] Lebanese,[11] Chinese[12] and some others, but not in Turkish women population, where validated instruments are needed to assess feeding attitudes reliably.

The current study was planned to perform the validity and reliability study of the IIFAS scale for Turkish parents and to determine maternal attitudes and factors that affect these attitudes toward infant feeding.

Subjectsand Methods

This methodological, analytical study was conducted at the obstetrics and gynaecology department of Sakarya

[1]Nursing Department, Sakarya University Health College, [2]Faculty of Medicine, Obstetrics and Gynecology Department, [3]Faculty of Medicine, Department of Biostatistics, [4,5]Faculty of School of Nursing Department of Child Health and Diseases, Sakarya University, Sakarya, Turkey.

Correspondence: Hilal Uslu Yuvaci. Email: hilaly@sakarya.edu.tr

Training and Research Hospital, Sakarya, Turkey, from June to August 2015, and comprised mothers of newborn babies.

The institutional approval was obtained from the ethics committee of Sakarya University. Informed consent was obtained from all the participants.

Mothers who had given birth 48 hours before, had healthy two-month-old babies, had no communication problem, and who voluntarily participated in the study were included. The number of attendees had been considered to be at least 20 times of scale items (17 items) for the calculation of sample size. Mothers who were unable to interact with their infant due to illness or medication, unable to speak or comprehend Turkish, had multiple births, whose infant was transferred to the intensive care unit (ICU) for more than 24 hours, or whose infant had a condition preventing effective breast- or formula-feeding, were excluded from the study.

The personal information form contained 20 questions prepared by the researchers. The first part of the personal information form included demographic information and health histories (such as age, education, employment status, income, the number of children, the number of breastfed children, etc.); the second part included feeding habits of the babies.

The IIFAS was initially designed to assess women's attitudes towards breastfeeding and predict the choice of an infant feeding method as well as the duration of breastfeeding.[8] The scale consisted of 17 items. The participants were asked to indicate how much they agree or disagree with each given statement of the items in the IIFAS, regarding breast or formula-feeding on a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Approximately half of the questions were worded to be favourable for breastfeeding and the remaining questions were worded to be favourable for formula-feeding. To find out the overall score, the items that were favourable for formula-feeding were reverse scored and summed with the remaining items. The IIFAS has a possible range of 17-85 points, with higher scores indicating more positive attitudes towards breastfeeding. In addition, items 1, 2, 4, 6, 8, 10, 11, 14, 17 of the scale marked with asterisks were reverse-scored and the scores for each item were then summed. The higher scores of the IIFAS indicate more positive attitudes towards breastfeeding. Studies using the IIFAS have reported the adequate predictive validity and internal consistency with the Cronbach's alpha ranging from 0.79 in Northern Ireland,[13] 0.89 in Scotland,[14] 0.64 in Saudi Arabia[11] and 0.74 in China.[12]

Permission to use IIFAS was obtained through written communication with the primary author holding copyright, and the forward translation from English to Turkish was conducted by two bilingual translators. Then, two other bilingual translators using the Turkish version of the IIFAS, who were blinded to the original English version, translated the IIFAS back to English. After making the necessary corrections, the form translated into Turkish was finalised with the statements made more understandable in terms of content validity in line with the suggestions of 11 experts consisting of child specialists, gynaecologists and paediatric nurses. A comparison was made between 27% sub and super-groups to reveal the content validity of scale scores. The independent two-sample t-test was used in this comparison.

In the final stage, the Turkish IIFAS was pretested with 10 Turkish women who were breastfeeding, to evaluate the readability of each item. The data of the pilot study was not included in the validation sample of the IIFAS.

A face-to-face interview was conducted with each mother before the discharge to administer the IIFAS questionnaire and collect demographic variables. The interviews with the participants were held in a suitable room in the health centres. It took 10-15 minutes to complete the data collection forms which were administered by one of the researchers.

The scale was evaluated in terms of internal consistency by the reliability analysis, and the Cronbach's Alpha coefficient was calculated. The fact that the Cronbach's alpha coefficient is above 0.7 indicates that the scale is reliable in terms of internal consistency.[15] The correlations between the items and the whole were also calculated within the scope of the reliability analysis. The scale was evaluated by Tukey's test for additivity.

Since the scale total scores did not show a normal distribution according to the Kolmogorov-Smirnov normality test, the Mann-Whitney U test was used in comparisons made between 2 groups in terms of the scale total scores, and the Kruskal-Wallis H test was used in comparisons made between more than two groups (Dunn's test was used as a paired comparison test if there was a significant difference as a result of the Kruskal-Wallis H test). The scale scores were shown in the form of arithmetic mean ± standard deviation. $P<0.05$ was considered significant. SPSS 23 was used for data analysis.

Results

There were 391 participants in the study. The reliability analysis found that 5 items (i.e. 1, 5, 8, 10 and 17) were

Table-1: Reliability analysis results of the IIFAS (n=391).

Items	Item-Total Correlation	Cronbach's Alpha if Item Deleted
IOWA.2 Formula-feeding is more convenient than breast-feeding	0.241	0.648
IOWA.3. Breast-feeding increases mother-infant bonding.	0.432	0.617
IOWA.4 Breast milk is lacking in iron.	0.127	0.667
IOWA.6.Formula-feeding is the better choice if a mother plans to work outside the home	0.117	0.668
IOWA7. Mothers who formula-feed miss one of the great joys of motherhood	0.393	0.623
IOWA9. Babies fed breast milk are healthier than babies who are fed formula	0.360	0.628
IOWA11. Fathers feel left out if a mother breast-feeds.	0.080	0.679
IOWA12. Breast milk is the ideal food for babies.	0.529	0.606
IOWA13. Breast milk is more easily digested than formula	0.470	0.609
IOWA14. Formula is as healthy for an infant as breast milk.	0.198	0.656
IOWA15. Breast-feeding is more convenient than formula	0.425	0.618
IOWA16. Breast milk is less expensive than formula.	0.302	0.639
Cronbach Alpha of Iowa Infant Feeding Attitude Scale (12 Items)		0.667

Table-2: Relationship between the characteristics of the participants and the IIFAS point averages.

		n	IIFAS Total Score (mean±SD)	p
Total		391	48.11±6.57	
Age	18-22	96 (24.6)	46.69±7.46	0.217
	23-27	120 (30.8)	48.32±6.1	
	28-32	97 (24.9)	48.72±6.44	
	33-37	58 (14.9)	48.38±6.49	
	38 +	19 (4.9)	49.89±4.71	
Educational Status	Primary school	139 (35.6)	47.18±6.43*	0.019 1
	Secondary school	114 (29.2)	47.44±7.06	
	High school	87 (22.3)	49.61±5.95*	
	College-Faculty	50 (12.8)	49.46±6.16	
Employment Status	Full day	47 (12.1)	47.4±6.2	0.231
	Half Day	14 (3.6)	48.79±7.14	
	I do not work	309 (79.2)	48.06±6.56	
	Free	20 (5.1)	50.55±7	
Social Security	Yes	352 (90.7)	48.43±6.5	0.003
	No	36 (9.3)	45.03±6.63	
Family type	Nuclear Family	292 (75.3)	48.63±6.28	0.029
	Extended Family	96 (24.7)	46.67±7.15	
Income level	Less Income than Expenditures (Low)	59 (15.2)	47.71±6.66	0.515
	Equal Income and Expenditure (Middle)	312 (80.6)	48.23±6.6	
	More Income than Expenditures (High)	16 (4.1)	47±6.38	
Type of Delivery	Normal Delivery	137 (35.3)	48.39±6.32	0.720
	Caesarean Section	221 (57)	47.86±6.76	
	Epidural Caesarean Section	30 (7.7)	48.83±6.43	
Birth week	38 weeks	137 (35.4)	48.66±5.73	0.317
	39 weeks	190 (49.1)	47.47±7.03	
	40-42 weeks	60 (15.5)	48.68±6.8	
Infant's status of staying in the newborn unit	Yes	55 (14.2)	47.44±7.03	0.571
	No	333 (85.8)	48.2±6.5	
Time of first seeing the baby after birth	0-15 min	258 (66.5)	48.81±6.07	0.079
	16-30 min	71 (18.3)	46.39±7.38	
	45 min - 1 hour	24 (6.2)	47.29±7.33	
	2 hours	19 (4.9)	47.95±7.15	
	3 Hours and Over	16 (4.1)	46±7.38	
Baby's first breastfeeding	First Half Hour	206 (54.8)	48.33±6.38	0.124

Contiued on next page >>>

	1 hour	82 (21.8)	48.5±6.85	
	Between 1 - 2 hours	34 (9)	44.79±8.45	
	After 2 Hours	54 (14.4)	48.39±4.68	
Status of receiving breastfeeding education	Yes	133 (34.3)	47.98±6.81	0.799
	No	255 (65.7)	48.11±6.45	
What mothers having another child fed their child during the first 6 months	Only Mother's Milk	176 (66.2)	48.78±7.06*	0.011 2
	Ready formula	17 (6.4)	48.18±4.97	
	Mother's Milk and formula	73 (27.4)	46.48±6.23*	

1: The difference was found between primary school graduates and high school graduates.
2: The difference was found between the mothers who only breastfed and the mothers who fed with mother's milk and formula.
IIFAS:Iowa Infant Feeding Attitude Scale
SD: Standard deviation.

Table-3: Distribution of the answers of the Iowa Infant Feeding Attitude Scale (n=391).

	SD	D	N	A	SA
1. The nutritional benefits of breast milk last only until the baby is weaned from breast milk. *	45 (11.5)	68 (17.4)	48 (12.3)	102 (26.1)	128 (32.7)
2. Formula-feeding is more convenient than breast-feeding.	17 (4.3)	24 (6.1)	25 (6.4)	153 (39.1)	172 (44)
3. Breast-feeding increases mother-infant bonding.	28 (7.2)	14 (3.6)	10 (2.6)	121 (30.9)	218 (55.8)
4. Breast milk is lacking in iron.	24 (6.1)	45 (11.5)	83 (21.2)	131 (33.5)	108 (27.6)
5 Formula-fed babies are more likely to be overfed than are breast-fed babies. *	90 (23)	109 (27.9)	61 (15.6)	97 (24.8)	34 (8.7)
6. Formula-feeding is the better choice if a mother plans to work outside the home	18 (4.6)	73 (18.7)	79 (20.2)	134 (34.3)	87 (22.3)
7. Mothers who formula-feed miss one of the great joys of motherhood.	35 (9)	18 (4.6)	12 (3.1)	138 (35.3)	188 (48.1)
8. Women should not breast-feed in public places such as restaurants.*	119 (30.4)	89 (22.8)	28 (7.2)	89 (22.8)	66 (16.9)
9. Babies fed breast milk are healthier than babies who are fed formula.	35 (9)	16 (4.1)	16 (4.1)	112 (28.6)	212 (54.2)
10. Breast-fed babies are more likely to be overfed than formula-fed babies.*	131 (33.5)	123 (31.5)	62 (15.9)	43 (11)	32 (8.2)
11. Fathers feel left out if a mother breast-feeds.	36 (9.2)	61 (15.6)	66 (16.9)	113 (28.9)	115 (29.4)
12. Breast milk is the ideal food for babies.	20 (5.1)	7 (1.8)	7 (1.8)	87 (22.3)	270 (69.1)
13. Breast milk is more easily digested than formula.	30 (7.7)	18 (4.6)	31 (7.9)	93 (23.8)	219 (56)
14. Formula is as healthy for an infant as breast milk.	35 (9)	19 (4.9)	47 (12)	147 (37.6)	143 (36.6)
15. Breast-feeding is more convenient than formula feeding.	28 (7.2)	12 (3.1)	16 (4.1)	114 (29.2)	221 (56.5)
16. Breast milk is less expensive than formula.	48 (12.3)	18 (4.6)	12 (3.1)	105 (26.9)	208 (53.2)
17. A mother who occasionally drinks alcohol should not breast-feed her baby.*	191 (48.8)	74 (18.9)	55 (14.1)	31 (7.9)	40 (10.2)

* Excluded from Turkish version of IIFAS.
SD: Strong Disagreement
D: Disagreement
N: Neutral
A: Agreement
SA: Strong Agreement.

incompatible with the integrity of the scale and hence excluded. It was found that the correlations between the sum of the scale and the items constituting the scale were at the intermediate level (0.080-0.529). The Cronbach's alpha coefficient, which was calculated for the integrity of the scale, was calculated to be 0.667, and accordingly, the scale was accepted as a valid and reliable measurement tool for Turkish society (Table-1).

The IIFAS overall mean score was calculated to be 48.11±6.57. No statistically significant difference was found between the age groups, employment statuses, income levels, types of delivery, week of birth, infant's status of staying in the newborn unit, the time of the mother's first seeing the baby after birth, infant's first breastfeeding time and the status of mother's receiving breastfeeding education (p>0.05). A statistically significant difference was found between the participants' educational status, whether they had social security, what mothers having another child fed their child during the first 6 months and family types (p=0.019, p=0.003, p=0.011 and p=0.029, respectively). According to the results of the paired comparison made for the answers given to the questions of educational status and what mothers having another child fed their child during the first 6 months, a difference was found between primary school graduates and high school graduates (p=0.049), and no significant difference was found between the other educational groups (p>0.05). Furthermore, while a difference was also found between the mothers who fed their previous

children only with mother's milk and the mothers who fed with mother's milk and formula (p=0.008), no significant difference was found between the other feeding types (p>0.05) (Table-2).

Moreover, 128(32.7%) participants strongly agreed that "nutritional benefits of breast milk last only until the baby is weaned from breast milk", 172(44%) strongly agreed that "formula-feeding is more convenient than breast-feeding", whereas 188(48.1%) strongly agreed that "mothers who formula-feed miss one of the great joys of motherhood". In contrast, 131(33.5%) mothers strongly disagreed with the statement that "breast-fed babies are more likely to be overfed than formula-fed babies", and 119(30.4%) with "women should not breastfeed inpublic places such as restaurants" (Table-3).

Discussion

To our knowledge, this is the first study to validate the IIFAS in post-partum mothers in Turkey. It was seen that the IIFAS is a valid and reliable measurement tool with a high distinction power that can be used in evaluating infant feeding attitudes of mothers in the early post-partum period in Turkish society.

In our study, the IIFAS total mean score was 48.11±6.57. Five items (i.e. 1, 5, 8, 10, 17) in the original IIAFS scale were excluded because of the low correlation with the scale integrity. As a result of the analysis performed with the remaining 12 items, the Cronbach's alpha coefficient was calculated to be 0.667. In the study of Charafeddine et al., item 8 (breastfeeding in public places) and item 17 (mother drinking alcohol) were not excluded from the scale although they were similarly found to be low correlated with the other scale parameters.[11] In the validity-reliability study carried out in Japan,[9] item 17 was excluded from the scale. In our study, items 8 and 17 were excluded. This situation can be explained by the fact that the appearance of the breast during breastfeeding in public places is not socially accepted in our country where the majority of the people are[16] Muslims, and that alcohol is also prohibited because of religious beliefs.

According to the result of a study in which participants from 4 countries in Europe were included, it has been shown that a negative attitude towards breastfeeding in public places among mothers and a breastfeeding attitude in this way lead to the early abandonment of breastfeeding.[17] Accordingly, it can be said that perceived social norms are more influential than breastfeeding results, breastfeeding knowledge and attitudes of women.

The original scale developed by De la More et al. was also applied to mothers in the post-partum period.[8] In this study, the IIFAS internal consistency alpha coefficient (the Cronbach's alpha coefficient) for two groups in the post-partum period was found to be strong between 0.85 and 0.86. In the study carried out by Sittlington et al. in Northern Ireland,[13] the Cronbach's alpha value was found to be 0.79. In pregnant women in the early period in Glasgow in the study of Scott et al., the Cronbach's alpha value was in the range of 0.77 and 0.60-0.80, and the reliability of the scale was found to be high.[17] However, in the validity-reliability study carried out by Charafeddine L. et al.[11] with mothers in the post-partum period in Saudi Arabia, the Cronbach's alpha value of the scale was found to be similar to our study as 0.64 and as 0.66[9] in the study carried out on pregnant women in Japan.

The IIFAS scale total mean score of mothers who participated in our study was found to be 48.11±6.57. Similarly, total score was found to be of 59±1.2 points in a similar study carried out by Dungy et al.,[14] 59.9±9.4 in the study of Scott et al.,[17] and 55.1±6.6 in a study carried out by Sittlington et al.[13] in Northern Ireland.

The studies in which the factors affecting breastfeeding duration are evaluated support the fact that the duration of breastfeeding increases as the socio-economic level and educational status increase.[18-20] In our study, a significant difference was also found between primary school graduates and high school graduates (p=0.019). It can be said that the increase in educational status positively affects the breastfeeding attitude.

In the literature, it has been reported that the duration of breastfeeding is longer among those living in extended family compared to those living in nuclear family, and among those living in urban areas compared to those living in rural areas.[21-23] There was a significant difference (p=0.005) between the mothers who fed their previous children only with mother's milk during the first six months and the mothers who fed their children with mother's milk and formula, and the IIFAS score averages were found to be high. According to our results, mothers with high educational level who fed their previous babies with mother's milk had higher IIFAS scores, and therefore, their feeding attitudes were better. In the study of Cinar et al., breastfeeding self-efficacy of mothers who previously had breastfeeding experience was reported to be high compared to those without experience.[24]

The fact that the mother has an intention to breastfeed the baby has been shown to have a positive effect on the development of the sense of maternity and on the bond between mother and baby.[25] In the IIFAS scale, a majority of the mothers (55.8%) who participated in our study

stated that they strongly agreed with the statement of "breastfeeding strengthens the bond between mother and baby".

Breastfeeding has positive effects for mothers such as feeling self-worth while feeding the baby, experiencing the sense of accomplishment, emotional satisfaction, and for the baby such as helping him/her to establish a close and secure relationship with his/her mother.[26] A sensual contact is established between the mother and baby, and mothers feel very close to their babies with breastfeeding. Mother's milk has an effect of killing the pain and reducing crying both by creating a sense of security in the baby and by increasing endorphin secretion.[27-29] Mothers who participated in our study also stated that they thought breastfeeding would help them establish a stronger bond with their babies (55.8%). In the study of Cinar et al., it was reported that there was a positive correlation between maternal attachment and breastfeeding self-efficacy.[24]

Studies carried out have shown that there is not much iron in the mother's milk, but 50% of the iron in the mother's milk and 5-10% of the iron in the cows' milk are absorbed.[30] The iron in mother's milk protects baby from iron deficiency in the first four months since its absorption is better than that cow's milk.[31] In the IIFAS scale, almost half of the mothers who participated in our study stated that they agreed with the statement of "there is not enough iron in the mother's milk". Accordingly, most mothers do not know that the level of iron absorption in the mother's milk and that it is more beneficial for the baby. It is important that health professionals who provide service to pregnant women and mothers in the post-partum period provide counselling services in this regard.

In the IIFAS scale, almost half of the mothers stated that they agreed with the statement of "if the mother wants to work outside, the best form of feeding is feeding with formula for the baby". We think that this situation results from the fact that only 20.8% of the mothers who participated in our study were working women.

In the IIFAS scale, almost half of the mothers stated that they strongly agreed with the statement of "fathers feel neglected while mothers are breastfeeding". In the study carried out by Cinar et al., it was stated that the support of women during breastfeeding by their families and circle of friends is important.[1] It has been determined in the studies carried out that mothers are more determined to start and maintain breastfeeding and feel better in the case that fathers positively look and support breastfeeding.[32,33] Therefore, the awareness of fathers should be increased in this regard by providing counselling service to increase the support of the father during the breastfeeding process.

Besides, 37.6% of the mothers who participated in our study stated that they agreed with the statement of "ready formula is as healthy for baby as mother's milk is". This situation indicates that expectant mothers do not yet fully accept the fact that mother's milk is the healthiest food for the baby although formulas are tried to be likened to mother's milk. However, mother's milk is a unique food that can never be imitated. No formula can replace mother's milk. The World Health Organisation (WHO) and United Nations Children's Fund (UNICEF) suggest that babies should only be fed with mother's milk without any supplementary food including water during the first six months after birth.[34] In the WHO's health statistics for 2011, the ratio of feeding only with mother's milk during the first six months is reported to be 36% in the world.[35] In the report of the Turkey Demographic and Health Survey, while the ratio of feeding only with mother's milk in up to five-month-old babies was 42% in 2008, it decreased to 30% in 2013 in Turkey.[7] This situation indicates that all pregnant women and mothers need more training and support in this regard.

One of the limitations of the current study was that its results cannot be generalised to Turkey as they are based on the data obtained from a single hospital in the Sakarya district. Similar studies on various populations in Turkey and in other countries should be conducted. The scale can be applied to mothers and fathers. In our study, mothers of up to two-month-old babies were included in the sample group. We believe that large-scale studies in which both parents are included in the sample will be useful.

Conclusion

The 12-item IIFAS-A was found to be a culturally acceptable, reliable, and valid scale for measuring maternal infant feeding attitudes among Turkish mothers. The infant feeding attitude was directly related to mother's educational status, the height of social position, and mother's infant feeding experience from her previous children. It is necessary to carry out large-scale, well-designed, randomised controlled studies on breastfeeding attitude with this scale in other groups such as fathers and adolescents.

Acknowledgements: We are grateful to all the participants.

Disclaimer: The abstract has been presented in 5th National 2nd International Mediterranean Pediatric Nursing Congress, 15-18 November, 2015, Ankara, Turkey. Oral presentation, number of the abstract : OP 92, page: 199.

Conflict of Interest: None.

Source of Funding: None.

References

1. Cinar N, Köse D, Altinkaynak S. The relationship between maternal attachment, perceived social support and breast-feeding sufficiency. J Coll Physicians Surg Pak 2015; 25: 271-5.
2. Cai S, Pang WW, Low YL, Sim LW, Sam SC, Bruntraeger MB, et al, GUSTO Study Group. Infant feeding effects on early neurocognitive development in Asian children. Am J Clin Nutr 2015; 101: 326-36.
3. Molina Torres M, Dávila Torres RR, Parrilla Rodríguez AM, Dennis CL. Translation and validation of the breastfeeding self-efficacy scale into Spanish: data from a Puerto Rican population. J Hum Lact 2003; 19: 35-42.
4. World Health Organization. Infant and young child feeding. [Online] [Cited 2016 June 24]. Available from: URL: www.who.int/nutrition/databases/infantfeeding/countries/en/index.html.
5. Bhutta ZA, Das JK, Rizvi A, Gaffey MF, Walker N, Horton S, et al, Lancet Nutrition Interventions Review Group; Maternal and Child Nutrition Study Group.. Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? Lancet 2013; 382: 452-77.
6. Dyson L, McCormick F, Renfrew MJ. Interventions for promoting the initiation of breastfeeding. Cochrane Database Syst Rev 2005; (2):CD001688.
7. Türkiye Nüfusve Saglik Arastirmasi - 2013. Hacettepe Nüfus Etütleri Enstitüsü Ankara, Türkiye. [online] [Cited 2016 June 18] Available from URL: http://www.hips.hacettepe.edu.tr/TNSA_2013_ana_rapor.pdf.
8. Mora ADL, Russell DW, Dungy CI, Losch M, Dusdieker L. The Iowa Infant Feeding Attitude Scale: Analysis of Reliability and Validity. J Appl Soc Psychol 1999; 29: 2362-80.
9. Nanishi K, Jimba M. Reliability and Validity of the Japanese Version of the Iowa Infant Feeding Attitude Scale: A Longitudinal Study. J Hum Lact 2014; 30: 346-52.
10. Wallis AB, Brînzaniuc A, Chereches R, Oprescu F, Sirlincan E, David I, et al. Reliability and validity of the Romanian version of a scale to measure infant feeding attitudes and knowledge. Acta Paediatr 2008; 97: 1194-9.
11. Charafeddine L, Tamim H, Soubra M, de la Mora A, Nabulsi M. Research and Advocacy Breastfeeding Team.. Validation of the Arabic Version of the Iowa Infant Feeding Attitude Scale among Lebanese Women. J Hum Lact 2016; 32: 309-14.
12. Ho YJ, McGrath JM. A Chinese version of Iowa Infant Feeding Attitude Scale: reliability and validity assessment. Int J Psychiatr Nurs Res 2011; 48: 475-8.
13. Sittlington J, Stewart-Knox B, Wright M, Bradbury I, Scott JA. Infant-feeding attitudes of expectant mothers in Northern Ireland. Health Educ Res 2007; 22: 561-70.
14. 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.
15. Ozdamar K. SPSS ileBiyoistatistik 9. Baski. Eskisehir, Turkey: Nisan Kitabevi, 2013; 328-9.
16. Berktay F, Atasoy E. A global perspective into geography of religions. Balikesir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi 2007; 10: 18-44.
17. Scott JA, Kwok YY, Synnott K, Bogue J, Amarri S, Norin E, et al. A comparison of maternal attitudes to breastfeeding in public and the association with breastfeeding duration in four European countries: Results of a cohort study. Birth 2015; 42: 78-85.
18. Bbaale E. Determinants of early initiation, exclusiveness, and duration of breastfeeding in Uganda. J Health Popul Nutr 2014; 32: 249-60.
19. Meedya S, Fahy K, Kable A. Factors that positively influence breastfeeding duration to 6 months: a literature review. Women Birth 2010; 23: 135-45.
20. Tanrikulu PÇ, Ersoy N, Ersoy G. 6-24 Ay Arasi Bebegi Olan Annelerin Emzirmeye Iliskin Bilgi Düzeylerinin, Emzirme Sürelerininve Bunlari Etkileyen Etmenlerin Incelenmesi. Beslenmeve Diyet Dergisi 2012; 40: 120-7.
21. Kramer MS, Kakuma R. Optimal duration of exclusive breastfeeding. Cochrane Database Syst Rev 2012; (8): CD003517.
22. McDonald SJ, Henderson JJ, Faulkner S, Evans SF, Hagan R. Effect of an extended midwifery postnatal support programme on the duration of breast feeding: A randomised controlled trial. Midwifery 2010; 26: 88-100.
23. Bonet M, Marchand L, Kaminski M, Fohran A, Betoko A, Charles MA, et al. "EDEN Mother-Child Cohort Study Group". Breastfeeding duration, social and occupational characteristics of mothers in the French 'EDEN mother-child' cohort. Matern Child Health J 2013; 17: 714-22.
24. Nursan C, Dilek K, Sevin A. Breastfeeding Self-efficacy of Mothers and the Affecting Factors. Aquichán 2014; 14: 327-35.
25. Scharfe E. Maternal attachment representations and initiation and duration breastfeding. J Hum Lact 2012; 28: 218-25.
26. Zubaran C, Foresti K. The correlation between breastfeeding self-efficacy and maternal postpartum depression in southern Brazil. Sex Reprod Health 2013; 4: 9-15.
27. Annagür BB, Annagür A. Dogum Sonrasi Ruhsal Durumun Emzirmeile Iliskisi. Psikiyatride Güncel Yaklasimlar 2012; 4
28. Skin to skin care. Word Health Organization 2013. [online] [Cited 2016 June 14]. Available from: URL: http://apps.who.int/rhl/newborn/gpcom/en/
29. Atici A, Polat S, Turhan AH. Anne sütüilebeslenme. TurkiyeKlinikleri J Pediatrical Sci 2007; 3: 1.
30. Domellöf M. Iron requirements, absorption and metabolism in infancy and childhood. Curr Opin Clin Nutr Metab Care 2007; 10: 329-35.
31. Topal S, Çinar N, Altinkaynak S. Süt Cocuklugu Döneminde Beslenme. Düzce Üniversitesi Saglik Bilimleri Enstitüsü Dergisi 2016; 6: 63-70.
32. Februhartanty J, Bardosono S, Septiari AM. Problems during lactation are associated with exclusive breastfeeding in DKI Jakarta Province: father's potential roles in helping to manage these problems. Mal J Nutr 2006; 12: 167-80.
33. Pisacane A, Continisio GI, Aldinucci M, D'Amora S, Continisio P. A controlled trial of the father's role in breastfeeding promotion. Pediatrics 2005; 116: 494-8.
34. Global strategy for infant and young child feeding: The optimal duration of exclusive breastfeeding, World Health Organization. [online] 2013 [Cited 2016 July 16] Available from: URL: http://www.who.int/nutrition/publications/gs_infant_feeding_text_eng.pdf.
35. World Health Statistics 2011. [online] [Cited 2016 July 5]. Available from URL: http://www.who.int/gho/publications/world_health_statistics/EN_WHS2011_Full.pdf