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Breast Milk and Breastfeeding Knowledge among Reproductive-Age Women at a Family Health Center

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ABSTRACT

Objectives: This study aimed to assess the knowledge of breast milk and breastfeeding, along with the associated factors, among reproductive-age women attending a family medicine unit.

Methods: Conducted in Ataşehir, Istanbul, from April to January 2020, this cross-sectional study included women aged 18-49 registered at the unit. Participants completed a demographic information questionnaire and a 30-question survey on breastfeeding knowledge, using a 3-point Likert scale.

Results: The study comprised 205 female participants, with the mean age of 33.7±8.65 years. The overall knowledge score was 71.8±17.1, with the highest score in the category of adequate breastfeeding duration (90.4±22.0). The breast milk general knowledge level score was lower in those with ≤ 8 years of education compared to those with 9-12 years and >12 years (64.8±16.9 for ≤ 8 years, 74.5±14.5 for 9-12 years, 74.3±17.6 for >12 years, p=0.001). Additionally, while the score was 74.2±17.3 for employed women, it was 68.8±16.5 for unemployed women (p=0.012).

Conclusion: While knowledge about the benefits of breast milk and breastfeeding for babies is high, gaps exist in understanding the benefits for mothers and in correct breastfeeding techniques.

Keywords: Breastfeeding, breast milk, health knowledge, attitudes, practice.

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INTRODUCTION

The rising prevalence of obesity and chronic diseases has underscored the importance of maintaining a healthy diet.[1] A critical first step in adopting healthy eating habits is ensuring adequate breastfeeding. Family physicians, as the most accessible health professionals for women of reproductive age in healthcare and counseling, should prioritize educating all women of childbearing age, including new mothers, about the importance of breast milk and breastfeeding. Family medicine, offering personalized preventive health services, addresses both acute and chronic issues. Its accessibility, respect for individual autonomy, consideration of cultural characteristics, prioritization of needs, and continuity in problem-solving make health education interventions more straightforward and effective.[2,3]

Breast milk is the sole source of all necessary nutrients for a baby's first six months, promoting optimal growth and development.[4] It is naturally clean and always at the ideal temperature for the baby.[5,6] The World Health Organization recommends initiating breastfeeding as soon as possible after birth, exclusively breastfeeding for the first six months, and then introducing complementary foods while continuing breastfeeding until the child is two years old.[7]

This study aimed to assess the knowledge level about breast milk and breastfeeding and the related factors among women of reproductive age attending a family medicine unit.

METHOD

This cross-sectional study took place in Ataşehir, Istanbul, from April to January 2020. The study population consisted of women aged 18-49 registered at a family health unit. To ensure statistical validity, a sample was selected based on a 5% Type 1 error rate and a 95% confidence interval, aiming for 80% study power. The sample size was determined to be 205.

Participants were invited to the family health center for a personal interview. A questionnaire, developed by the researchers and based on existing literature, was used. This questionnaire included demographic information such as age, marital status, educational background, training on breast milk and breastfeeding, income level, the number of children breastfed, and questions assessing breastfeeding knowledge. The knowledge questions used a 3-point Likert scale with options for true, false, and no idea. The questionnaire's breastfeeding knowledge section comprised 30 questions. The scale's internal consistency coefficient (Cronbach's α) was 0.67. It included 6 subheadings: information about the first food given to the baby and colostrum (6 questions), adequate duration of breast milk (2 questions), benefits of breast milk to the baby (8 questions), correct breastfeeding techniques (5 questions), benefits of breastfeeding for the mother (6 questions), and negative factors affecting breast milk and breastfeeding (3 questions). A total knowledge score and subheading scores were calculated by awarding 1 point for each correct answer, with the total knowledge score converted to a 100-point system.

Data analysis was performed using the Number Cruncher Statistical System 2007 (Kaysville, Utah, USA). The Shapiro–Wilk test and graphical evaluations confirmed the quantitative data's normal distribution. Descriptive statistics (frequency, percentage, mean, standard deviation) were used to present the data. For quantitative data, the Student's t-test was applied for two-group comparisons not showing normal distribution. The One-way ANOVA test was used for comparisons among three or more groups not showing a normal distribution, with the Bonferroni–Dunn test for pairwise comparisons. Significance was assessed at the $p<0.005$ level.

RESULTS

The study included 205 female participants, with an average age of 33.7±8.65 years. The general demographic characteristics of the participants are summarized in Table 1.

The overall knowledge score of the participants was 71.8±17.1. The scores for the subheadings of knowledge are detailed in Table 2.

Upon evaluating the breastfeeding knowledge scores in relation to general characteristics, differences were observed in the general knowledge levels about breast milk based on education level, employment status, and income level. The breastfeeding knowledge scores according to these general characteristics are summarized in Table 3.

DISCUSSION

Breastfeeding is notably prevalent in Türkiye.[4] The 2013 and 2018 Türkiye Demographic and Health Survey (TDHS) data indicate that 97% of children were breastfed for some time, albeit with minor variations based on basic

Table 1. General demographic features of participants

	n (%)
Age groups	
≤25 year	42 (20.5)
26-35 year	79 (38.5)
36-44 year	60 (29.3)
> 45 year	24 (11.7)
Martial status	
Married	139 (67.8)
Single	63 (32.2)
Education level	
≤ 8 years	53 (25.9)
9-12 years	49 (23.9)
>13 years	103 (50.2)
Employment status	
Employed	114 (55.6)
Unemployed	91 (44.4)
Income level	
Low	15 (7.3)
Middle	118 (57.6)
High	72 (35.1)
Pregancy history	
Yes	134 (65.4)
No	71 (34.6)
Breastfeeding history	
Yes	123 (91.8)
No	11 (8.2)
Breastfed child count	
1	40 (32.5)
2	61 (49.6)
≥3	22 (17.9)

Table 2. Subheadings knowledge scores of the participants

	Score
First food given to the baby and colostrum	73.9±27.8
Adequate duration of breast milk	90.4±22.0
Benefits of breast milk to the baby	72.7±19.1
Correct breastfeeding	60.3±23.6
Benefits of breastfeeding for the mother	58.4±25.8
Negative factors affecting breastfeeding	85.2±22.2

Data is presented as mean±standard deviation.

Table 3. Breastfeeding knowledge score according to general characteristics

	Score	p
Age groups		0.250*
≤25 year	73.0±19.5	
26-35 year	71.3±16.7	
36-44 year	73.9±15.5	
> 45 year	66.7±18.4	
Martial status		0.489†
Married	72.4±17.3	
Single	70.7±16.8	
Education level		0.001*
≤ 8 years	64.8±16.9	
9-12 years	74.5±14.5	
>12 years	74.3±17.6	
Employment status		0.012†
Employed	74.2±17.3	
Unemployed	68.8±16.5	
Income level		0.037*
Low	62.2±11.1	
Middle	71.4±16.4	
High	74.5±18.5	
Pregancy history		0.052†
Yes	73.6±16.2	
No	68.5±18.3	
Breastfeeding history		0.654†
Yes	73.8±16.1	
No	71.2±18.3	
Breastfed child count		0.063*
1	77.5±14.4	
2	70.5±16.2	
≥3	76.5±17.6	

Data is presented as mean±standard deviation.
*One-way ANOVA test, †Student t test.

characteristics. The TDHS 2018 data reveal that 41% of children under 6 months were exclusively breastfed, with rates decreasing rapidly as children aged.[8,9] Despite the commonality of post-partum and ongoing breastfeeding, challenges persist in maintaining it.[10] In Turkish society, prevalent misinformation and attitudes towards breast milk contribute to many infants not receiving adequate breast milk.[11] This shortfall can lead to developmental delays in infants, increasing the risk of various diseases in adolescence and adulthood and causing economic losses for the country.[5,12]

Previous studies have demonstrated that a mother's attitude towards breastfeeding post-birth, her awareness of its benefits for the baby's health, and the support she receives from her surroundings influence her breastfeeding decisions.[11,13] Community support for breastfeeding mothers is crucial.[2]

In a 2015 study by Vijayalakshmi et al. in India, over 80% of mothers recognized colostrum as the first milk, understood its importance for the baby's immunity, and knew that only breast milk should be given for the first 6 months.[14] They also acknowledged that breastfeeding strengthens the mother-baby bond and were aware of the need to clean the breast before breastfeeding and that breast milk aids digestion. In Türkiye, 2018 data showed that 97.6% of mothers breastfed their babies. Engin et al.'s study found that 88.1% of mothers with babies aged 0-3 months knew about colostrum, 53.6% planned to continue breastfeeding as long as possible, and 57.1% understood that the duration of exclusive breastfeeding is 6 months.[15] These findings align closely with those of our study.

In the 2018 data published by the Türkiye Demographic and Health Survey (TDHS), the rate of exclusive breastfeeding up to 6 months was 41%, and the rate of continued breastfeeding up to 2 years of age was 34%.[9] A study conducted in 2015 by Öztürk et al. at Karabük University, titled 'Truths and Mistakes Known by Mothers About Breast Milk and Breastfeeding', shared similar demographic features with our study.[16] These included the age of the participants, receiving information about breast milk, a high percentage of health personnel as the source of information, and the initiation of breastfeeding. Both studies also reported similar rates of exclusive breastfeeding in the first 6 months. The Öztürk et al. study found that while a majority of mothers received information about breast milk and breastfeeding, their knowledge on the subject was insufficient. In contrast, our study demonstrated a significantly higher score level. This difference is attributed to the higher education and income levels of our study's participants. When evaluat-

ing the knowledge level scores according to age, income level, and knowledge parameters about breast milk and breastfeeding, no statistically significant difference was found. These results suggest that our educational efforts on the duration of adequate breastfeeding have been successful.

In the context of global literature, a study involving 322 Chinese mothers in Ireland reported that 82% of the participants believed breast milk to be the ideal food for babies, and 60% acknowledged its protective effect against certain diseases.[17] A 2013 study by Arslan and Yeniterzi on Turkish mothers of pre-term babies found that 71.0% were aware of the benefits of breast milk. Specifically, 26.0% recognized its role in growth and development, 17.0% in disease prevention, and 11.0% in both enhancing growth and providing disease protection.[18] In our study, when analyzing data based on marital status and information received about breast milk and breastfeeding, no significant differences were found in scores based on marital status. However, those who had received information scored higher than those who had not. The findings of our study suggest that while mothers may have some knowledge about the benefits of breastfeeding, this knowledge is not comprehensive and could be enhanced with visual educational materials. The use of such materials can simplify complex medical terms, improve the quality of education, and encourage more questions from participants.

According to 2013 TDHS data, 39.7% of infants younger than 6 months were bottle-fed.[8] The 2018 TDHS data indicated an increase in bottle use among infants younger than 2 months, rising from 31.0% to 60.0% in children aged 9–11 months, with a rate of 53.0% for children aged 0–23 months.[9] Bottle and pacifier use is discouraged as infants can become accustomed to them, leading to a reluctance to breastfeed. Additionally, the nipple part of bottles is prone to contamination, increasing the risk of illness in children. Therefore, bottle use is not recommended for children under 2 years of age.[19] The high knowledge scores in our study regarding the negative factors affecting breast milk and breastfeeding may be attributed to the socio-demographic characteristics of the participants, their high level of education and income, and a significant proportion receiving counseling. When evaluating the data according to age, education, and income level, no significant statistical differences were observed. We infer that the common practice among Family Health Center staff of discouraging the use of breastfeeding aids has contributed to our high success rate in this area.

CONCLUSION

Our study revealed that knowledge about colostrum and breast milk, breastfeeding durations, benefits of breastfeeding for the baby, and negative factors affecting breastfeeding was at the desired level. However, awareness regarding the benefits of breastfeeding for the mother and correct breastfeeding techniques was found to be lower. Despite the high frequency of breastfeeding, there are gaps in knowledge about its benefits for the mother and incorrect practices in breastfeeding techniques. Additionally, our study identified that single participants had lower knowledge levels compared to married participants.

Disclosures

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

Funding: None.

Ethics Committee Approval: This study received approval from the Fatih Sultan Mehmet Training and Research Hospital Ethics Committee (Approval date: October 24, 2019, Approval number: 2019/66). Verbal and written informed consent was obtained from all participants, in accordance with the Health Sciences University and Istanbul Provincial Health Directorate guidelines.

Authorship Contributions: Concept – F.K.; Design – F.K.; Supervision –A.Ö.; Materials – F.K.; Data collection and/or processing – F.K.; Analysis and/or interpretation – F.K.; Literature search – F.K.; Writing – F.K.; Critical review – B.T.

REFERENCES

1. Ungan M, Telatar B. The role of breastfeeding in childhood and adult obesity. In Telatar B, editor. The importance of breast milk in family medicine for maternal and infant health. Türkiye Klinikleri J Fam Med [Article in Turkish] 2019;2019:135–40.
2. Çiftetepe ÖD, Öztora S. Breastfeeding counseling in family medicine. Türkiye Klinikleri J Fam Med [Article in Turkish] 2019;2019:76–80.
3. Çetinbaş A, Dağdeviren HN. The factors that effect the success of breastfeeding. Türkiye Klinikleri J Fam Med [Article in Turkish] 2019;2019:66–8.
4. Özer ZY, Kurdak H, Bozdemir N. Breastfeeding status in Turkey. Türkiye Klinikleri J Fam Med [Article in Turkish] 2019;2019:61-5.
5. Samur GE. Breast milk. [Article in Turkish] Ankara: Publications of the Ministry of Health; 2008.
6. T.C. Ministry of Health, Public Health Institution of Trkey. Promotion of breast milk and baby-friendly Health institutions training materials 2015. Available at: https://hsgm.saglik.gov.tr/tr/beslenme-programlari/anne-sutunun-tesviki-bebek-dostu-skp.html. Accessed Dec 01, 2023.

7. WHO/UNICEF. Breastfeeding counselling: A training course. Available at: https://iris.who.int/bitstream/handle/10665/63428/WHO_CDR_93.4-eng.pdf?sequence=1 . Accessed December 01, 2023.
8. Hacettepe University Institute of Population Studies. Turkey Demographic and Health Survey. Breastfeeding and supplementary food. Feeding infants and toddlers. [Article in Turkish]. Available at: http://www.sck.gov.tr/wp-content/uploads/2020/02/Turkiye-Nufus-ve-Sa%C4%9Flik-Arastirmasi-2013.pdf. Accessed Dec 01, 2023.
9. Hacettepe University Institute of Population Studies. Turkey Demographic and Health Survey. Breastfeeding and supplementary food. Feeding infants and toddlers [Article in Turkish]. Available at: http://www.sck.gov.tr/wp-content/uploads/2020/08/TNSA2018_ana_Rapor.pdf. Accessed December 21, 2023.
10. Vitrinel A, Telatar B. Problems encountered during breastfeeding and solutions. Türkiye Klinikleri J Fam Med [Article in Turkish] 2019;2019:69–75.
11. Doğan B, Toprak D. The risks of inadequate breastfeeding for mothers and infants. Türkiye Klinikleri J Fam Med [Article in Turkish] 2019;2019:111–16.
12. American Academy of Pediatrics. Breastfeeding and the use of human milk. Pediatrics 2012;129:827–41.
13. Stuebe AM, Bonuck K. What predicts intent to breastfeed exclusively? Breastfeeding knowledge, attitudes, and beliefs in a diverse urban population. Breastfeed Med 2011;6:413–20.
14. Vijayalakshmi P, Susheela T, Mythili D. Knowledge, attitudes, and breastfeeding practices of postnatal mothers: A cross sectional survey. Int J Health Sci 2015;9:364–74.
15. Engin MMN, Kılıçaslan Ö, Aslantaş M, Kocabay K. Evaluation of breastfeeding knowledge level of mothers with babies between 0-3 months. Int Anatol Acad Online J [Article in Turkish] 2020;6:1:1–18.
16. Öztürk Ö, Sarıkaya P, Özdemir Ş, Çikendin Z, Zümbül N. True and falses known by the mothers about mother milk and breastfeeding. JCP [Article in Turkish] 2018;16(2):40–54
17. Zhou Q, Younger KM, Kearney JM. An exploration of the knowledge and attitudes towards breastfeeding among a sample of Chinese mothers in Ireland. BMC Public Health 2010;10:722.
18. Arslan FT, Yeniterzi E. Views of parents' about taking human milk of premature infants. Perinat J [Article in Turkish] 2013;21:77–84.
19. Örs OP, Kars V. Breastfeeding Tecnics, Milk Production and Storage. Türkiye Klinikleri J Fam Med [Article in Turkish] 2019;2019:81–87.