



ORIGINAL ARTICLE

Weaning practices of mothers in eastern Turkey[☆]

Nazan Gürarşlan Bař^{a,*}, Gülnaz Karatay^a, Duygu Arikan^b



^a Munzur University, School of Health Science, Tunceli, Turkey

^b Atatürk University, Nursing Faculty, Erzurum, Turkey

Received 24 February 2017; accepted 14 June 2017

Available online 9 September 2017

KEYWORDS

Children;
Nursing;
Weaning

Abstract

Objective: The study aimed to determine the practices used by breastfeeding mothers to wean their children from the breast.

Method: This qualitative–quantitative research was conducted with mothers whose children were registered the pediatric clinics of a state hospital between June and September 2016. In accordance with a purposeful sampling method, 232 mothers of children between the ages of 2 and 5 years were included in the study. Data were collected through face-to-face interviews using a questionnaire with demographic characteristics of mothers as well as their weaning practices. The data obtained were analyzed with a computer-assisted program using number and percentage distributions.

Results: The mean breastfeeding duration was 19.00 ± 7.11 months. It was determined that the majority of mothers (56.5%) used traditional methods for weaning their children. These included applying substances with a bad taste (58.1%) to their breasts, covering their breasts with various materials (26.2%) to make the child not want to nurse anymore, and using a pacifier or feeding bottle (9.2%) to substitute for the mother's breast.

Conclusions: It was observed that more than half of the mothers were used some traditional practices that could cause trauma in their children, instead of natural weaning.

© 2017 Sociedade Brasileira de Pediatria. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

PALAVRAS-CHAVE

Crianças;
Enfermagem;
Desmame

Práticas maternas de desmame no leste da Turquia

Resumo

Objetivo: O estudo visou determinar as práticas utilizadas por mães em amamentação para desmamar seus filhos do peito.

[☆] Please cite this article as: Bař NG, Karatay G, Arikan D. Weaning practices of mothers in eastern Turkey. J Pediatr (Rio J). 2018;94:498–503.

* Corresponding author.

E-mail: nbas@munzur.edu.tr (N. Gürarşlan Bař).

Método: Essa pesquisa qualitativa-quantitativa foi realizada com mães cujos filhos foram registrados em clínicas pediátricas de um hospital estadual entre junho-setembro de 2016. De acordo com o método de amostragem proposital, 232 mães de crianças com idades entre 2 e 5 anos foram incluídas no estudo. Os dados foram coletados por meio de entrevistas presenciais que utilizam um questionário com características demográficas das mães, bem como suas práticas de desmame. Os dados obtidos foram analisados com um programa de computador que utiliza distribuições numéricas e percentuais.

Resultados: A duração média de amamentação foi de $19 \pm 7,11$ meses. Foi determinado que a maior parte das mães (56,5%) utilizou métodos tradicionais para desmamar seus filhos. Esses métodos incluíram aplicar substâncias com gosto ruim (58,1%) em seus seios, cobrir seus seios com materiais diversos (26,2%) para fazer com que seu filho deixe de querer mamar e utilizar chupeta ou mamadeira (9,2%) para substituir o peito da mãe.

Conclusões: Foi observado que mais da metade das mães estavam utilizando algumas práticas tradicionais que podem causar trauma em seus filhos, em vez do desmame natural.

© 2017 Sociedade Brasileira de Pediatria. Publicado por Elsevier Editora Ltda. Este é um artigo Open Access sob uma licença CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Mother's milk is an essential nutrient that meets the basic nutritional needs of the baby.^{1,2} As a cultural phenomenon with social and spiritual dimensions, breastfeeding supports psychosocial development through the mother–infant bond, while meeting the physiological requirements of the baby.^{3,4} For these reasons, the World Health Organization (WHO) recommends breastfeeding for two years or longer, using only breastmilk for the first six months after birth and thereafter with additional nutrients.⁵ However, 49% of infants born in 2011 were breastfed at the age of 6 months and 27% at 12 months.⁶ The mean duration of breastfeeding is longer in countries with low levels of income than in those with higher levels of income.⁷

Many factors affect the breastfeeding behaviors of mothers. Studies show the presence of a relationship between weaning and factors such as age of the mother,^{8,9} employment status, breastfeeding problems,^{8,10} mother's health problems,¹¹ place of residence, and socioeconomic status,¹² pregnancy,⁸ early food introduction, and the inability to get support for breastfeeding.^{2,9,13} A review of the practices of mothers and the weaning process indicates that this topic has not been adequately studied. Moreover, few studies have reported the use of traditional weaning practices.^{14,15} Traditional practices aim to terminate breastfeeding quickly. However, a review of the literature showed that the benefits and disadvantages of traditional weaning practices have not been well researched. It is known that abrupt and sudden termination of breastfeeding, which is an important link between mother and baby, and the methods used for this purpose may cause trauma to both the mother and baby.^{2,14} It may negatively affect the infant's mental–social development as well as the bonding between mother and child; it may also increase the risk of neglect and abuse. Additional risks include the baby's refusal of food, dehydration, and malnutrition.¹⁴

The success of the breastfeeding process depends on whether or not the mothers receive adequate information and support regarding the development of their child. In line with this, there are opportunities for nurses, who work

with mothers and children, to offer counseling and education to nursing mothers in support of this goal. The specific roles of health professionals should be implemented during the initiation phase of breastfeeding, its continuation, and during the weaning phase. Health professionals understand the importance of encouraging mothers, when possible, to breastfeed for two years; they can also provide instruction on the practices that support a healthy mother–infant separation during the weaning process. At this time, mothers would have the opportunity to learn about the benefits and disadvantages of the various practices.

Purpose of the study

The aim of this study was to evaluate the weaning practices of mothers of children aged 2–5 years who terminated breastfeeding at any time.

Methods

Study design

In this study, a qualitative–quantitative method was used. For this purpose, Creswell's concurrent transformative mixed-model research design was adopted.¹⁶ In this design, which helps to better understand the facts and alternative approaches, qualitative and quantitative data were collected concurrently and analyzed together to provide strong evidence for the results.

Sample

The sample of the study consisted of mothers of children aged 2–5 years admitted to the pediatric clinic of a state hospital. A purposeful sampling method was used to select 232 mothers.¹⁷ Mothers with breastfeeding experience of any duration were included in the study. Sample size was calculated before data collecting process, considering an alpha at 0.05 as significant level, the incidence of population was taken 0.50 and incidence of study group was taken

0.40 and statistical power was taken 0.85. Sample size was determined to be 221 mothers. However, to account for possible losses during analysis, 5% more mothers were included in the study.

Data collection

Based on the current available literature,^{1,2,8,18} a questionnaire was developed by the researchers, and the study data were collected between June and September 2016. The questionnaire consisted of 20 items to assess mothers' weaning practices, as well as their descriptive characteristics. An in-depth effort was made to understand mothers' rationale as well as the methods used to wean their children. For this study, quantitative and qualitative data were collected simultaneously, and each interview lasted approximately 20–25 min. Data were collected in face-to-face interviews. Two basic questions were asked to better understand the breastfeeding practices of mothers:

“How did you decide to wean your child?”

“Which methods did you use for weaning?”

Data analysis

The quantitative data obtained were transferred to SPSS (SPSS Statistics for Windows, version 18.0, Chicago, USA). The data were analyzed using percentiles and averages. Furthermore, mothers' rationale for termination of breastfeeding was categorized using content analysis. Data were categorized according to the literature and were then converted into quantitative data. Each category was supported with qualitative statements.

Ethical dimensions

Before collecting the study data, approval of the ethics committee was obtained from the Firat University Non-Interventional Research Ethics Committee. Written permission from the studied institution and verbal consent of mothers were obtained in accordance with the Declaration of Helsinki.

Results

The demographic characteristics of the mothers and their children were shown in Table 1. Most of the mothers (81.5%) had hoped to breastfeed for 13–24 months; however, only 52.2% were able to do so.

Within the scope of the study, the rationale of mothers for weaning their children was assessed. The results showed that 26.3% of the mothers stated that their child had breastfed for an adequate period of time, 24.1% thought that their milk had dried up, 17.2% thought that the child was old enough to be weaned, and 15.9% had terminated breastfeeding because they were pregnant.

“My child had grown much. She had teeth, and was biting. I was in pain while breastfeeding. I felt she was using the breasts just to be playful, so I decided to wean.”

Table 1 Demographic characteristics of the mothers and children.

Characteristics	n	%
<i>Maternal age</i>	30.34 ± 4.85	
<i>Maternal education status</i>		
Elementary school	19	8.2
Secondary school	33	14.2
High school	105	45.3
College and above	75	32.3
<i>Maternal employment status</i>		
Employed	65	28.0
Unemployed	137	72.0
<i>Maternal income status</i>		
Low	32	13.8
Medium	182	78.4
High	18	7.8
<i>Mean number of children</i>	1.85 ± 1.09	
<i>Mean age of children</i>	3.67 ± 0.79	
<i>Gender of the child</i>		
Female	145	62.5
Male	57	47.5
<i>Delivery type</i>		
Normal vaginal	124	53.4
C-section	108	46.6
<i>Desired duration of breastfeeding</i>		
0–6 months	7	3.0
7–12 months	22	9.5
13–24 months	189	81.5
25 months and above	14	6.0
<i>Current duration of breastfeeding</i>		
0–6 months	15	6.5
7–12 months	59	25.4
13–24 months	121	52.2
25 months and above	37	15.9
<i>Mean duration of breastfeeding (months)</i>	19.00 ± 7.11	

“I learned I was pregnant... Breastfeeding was not recommended during pregnancy. I had to stop breastfeeding when she was 13 months old.”

“I decided to wean by myself. She was 20 months old, and was able to eat everything. Breastfeeding would not help the child...”

Based on the goals of the study, the rationale of mothers for weaning was assessed and categorized. According to the findings, most of the mothers (56.5%) had tried one of the traditional methods (presented below) to interrupt breastfeeding.

More than one-third (58.1%) applied tomato sauce, cayenne pepper, aloe vera, and salt on their nipples to create a bad taste for the nursing child.

“I applied cayenne pepper to the nipple before breastfeeding. My child cried due to the bitter taste of my breasts, and moved away. My child would ask to

breastfeed from time to time, but would give up after saying 'It's bitter'."

Some of the mothers (13.5%) applied lipstick, nail polish, clay, or soot on the breasts to create a fear-inducing sight to discourage the child from nursing anymore.

"I applied lipstick on my nipples, and 'look it's bleeding' I said. The expression of her face changed and started to cry... and my child avoided my breasts since then."

A small percentage of mothers (26.2%) attempted to create an aversion to breastfeeding by placing hair, cotton, and bandages on the breasts. This method also made it difficult for their children to access the breasts.

"I cut my hair and glued it onto my breasts. I showed it to my child, and said 'breast is dirty.' My child asked to breastfeed persistently. 'You can suck on the nipple,' I said. I put the nipple in her mouth, and the hair on top of breasts prevented her to reach my nipples. At the same time, my child gagged when she got the hair in her mouth. She was about to vomit. After a while, when she asked to breastfeed again, I showed my breast with hair. She refused to breastfeed after seeing the hair."

Another practice employed by 9.2% of the mothers to wean their children was to use a pacifier or a bottle.

"When my child asked to breastfeed, I stopped her. I tried to give the pacifier or feeding bottle instead. My child cried for the first two days, and resisted to take the bottle. However, after three days, she took the bottle without any problem, and, after a day or two, she never asked to breastfeed again."

None of the surveyed mothers had received consultation services from the relevant healthcare staff (family doctor, nurse, midwife, pediatrician) during the weaning phase. The results of this study revealed that all the mothers decided to stop breastfeeding based on their own personal experiences (Table 2).

Discussion

As noted earlier, mother's milk is the most important nutrient for the child, as it meets both their psychological and physiological needs. For these reasons, there are programs aimed at encouraging mothers to breastfeed for the first two years and more.¹⁹ In this study, the mean breastfeeding duration was found to be higher than in other countries, and higher than the average for Turkey.^{2,11,20} This can be explained by the higher rate of literacy and awareness of the province of the study. As well as continuing breastfeeding, the process of weaning is also important. In this respect, the time and methods of weaning become a critical issue. In this study, mothers stated that they stopped breastfeeding because they felt it was time to do so; the child had breastfed long enough. Some mothers felt their milk had dried up, and others discovered they were pregnant. Other studies have reported the following reasons for weaning children: inadequate mother's milk, addition of solid foods to the child's diet after six months, child's refusal to breastfeed, adequate duration of breastfeeding, mother's employment,

Table 2 Weaning practices of mothers.

	n	%
<i>Deciding to wean</i>		
By themselves	232	100.0
<i>Reason for weaning</i>		
Thinking that the duration of breastfeeding was sufficient	61	26.3
Thinking that her milk had gone dry	56	24.1
Thinking that the child had grown up	40	17.2
Conception	37	15.9
Child stopped to breastfeed	16	6.9
Other ^a	22	10.5
<i>Status of using traditional methods for weaning</i>		
Yes	131	56.5
No	101	43.5
<i>Traditional weaning practices (n = 141)^b</i>		
Applying tomato sauce, cayenne pepper, aloe vera, and salt on nipples to create a bad taste	82	58.1
Aversion by placing hair, cotton, and bandage on the breasts	37	26.2
Applying lipstick, nail polish, clay, or soot on the breasts to create a terrifying look	19	13.5
Using a pacifier or feeding bottle	13	9.2
<i>Mean weaning duration (days)</i>	4.47 ± 3.45	

^a Pain, illness, pressure of family member.

^b More than one answer has been given.

pregnancy, health problems, and use of pacifier or feeding bottle.^{15,19,21-24}

The results of this study revealed that all of the mothers decided to stop breastfeeding based on their own personal experiences and subjective approaches. Although the mean breastfeeding duration was nearly ideal in the present study, nurses and other health professionals could offer mothers a higher level of support when they decide to wean their children. In this study, none of the mothers had received counseling regarding the possible times and methods to terminate breastfeeding. Although breastfeeding counseling in Turkey encourages breastfeeding for two years, the importance of the weaning process has, unfortunately, been overlooked.

The most common practices used by study participants to begin weaning their children were to apply tomato paste, cayenne pepper, aloe vera, and salt on the breasts, place hair, cotton, and bandages on their breasts, and using a feeding bottle or pacifier to stop breastfeeding. These traditional methods were similar to some studies conducted in Turkey and some other countries. Women in Africa have been known to apply substances such as aloe leaves, ash, betel juice, bitter herbs, peppers, cactus, garlic, mud, soot, quinine, tobacco, and turmeric on their breasts in order to stop breastfeeding quickly by creating a bad taste. Mothers using these methods stated that their babies cried for one day and then stopped breastfeeding.¹⁴ Radwan reported that 25% of the mothers had applied lipstick, aloe vera, and bitter substances to the breasts.²¹ Piwoz et al. reported that mothers

had wrapped their breasts with tight clothes to stop their child from breastfeeding.¹⁴ Dinç et al. reported that 33.1% of the mothers had applied peppers, tomato paste, lipstick, vaseline, coffee grounds, salt, bandages, mint leaves, broom fibers, or hair in order to wean their child.¹⁵ As seen in this recent study and other studies, some traditional methods such as creating a bad taste, making the breast scary to the child, preventing the suction of the children, and making breast access more difficult were used as weaning practices. Weaning is a critical phase in young children's development. The weaning practices used by mothers in eastern Turkey can be thought to pose traumatic risks in terms of mother–infant separation. This topic is not adequately addressed in the literature, and thus a proper comparison with other study findings was not possible. Since a mother's breasts are objects of trust for babies and young children, the abrupt weaning of children, as well as the images of blood or other fear-inducing images on the breasts may lead to ambivalent attitudes or feelings of alienation related to the female breast. Therefore, breastfeeding counseling services have become important in the termination phase of breastfeeding to support natural weaning.

Natural weaning begins when babies need for nursing has been fulfilled. Natural weaning occurs as the infant begins to accept increasing amounts and types of complementary feedings while still breastfeeding on demand between two and four years of age. Natural weaning is healthier than other methods for mother–baby attachment and separation.²⁵ This process is less traumatic for mother and baby, since it occurs naturally according to the readiness level of mother and baby. Supporting the baby's nutritional needs with exclusive feeds and reducing the frequency of breastfeeding makes it easier for the baby spontaneously interrupt breastfeeding. For this reason, natural weaning should be supported by healthcare professionals.²⁶

In the present study, participants breastfed for 19 months on average, decided when to terminate breastfeeding based on their personal experiences, and used mostly traditional methods for weaning. The results also revealed that some of the traditional methods used to wean a child can have traumatic effects. Therefore, the authors recommend to conduct more comprehensive and in-depth studies on this topic, as well as to add counseling for the weaning phase of the breastfeeding counseling programs.

Since the study was related to the termination of breastfeeding, only the mothers of 2–5-year-old children were included in the study; this sampling scope was extended due to the low fertility rate in the studied province. The study data is based on the testimonies of the mothers. Therefore, the memory bias is a limitation of the study.

Conflicts of interest

The authors declare no conflicts of interest.

Acknowledgments

The authors would like to thank the women who participated in the study.

References

1. Brown CR, Dodds L, Legge A, Bryanton J, Semenic S. Factors influencing the reasons why mothers stop breastfeeding. *Can J Public Health*. 2014;105:e179–85.
2. Kearns AN, Castro MC, Lourenço BH, Augusto RA. Factors associated with age at breastfeeding cessation in amazonian infants: applying a proximal-distal framework. *Matern Child Health J*. 2016;20:1539–48.
3. Annagür BB, Annagür A. The relationship between postpartum mental status and breastfeeding. *Curr Appr Psychiatry*. 2012;4:279–92.
4. Hahn-Holbrook J, Dunkel Schetter C, Haselton M. Breastfeeding and maternal mental and physical health: is breast best for mom too? In: Spiers M, Geller P, Kloss J, editors. *Women's health psychology*. New Jersey: Wiley; 2013.
5. World Health Organization (WHO). Exclusive breastfeeding [cited 10 May 2017]. Available from: http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/.
6. Center for Disease Control and prevention (CDC). Breastfeeding Report Card 2014 [cited 10 May 2017]. Available from: <https://www.cdc.gov/breastfeeding/pdf/2014breastfeedingreportcard.pdf>.
7. Victora CG, Bahl R, Barros AJ, França GV, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms and lifelong effect. *Lancet*. 2016;387:475–90.
8. Motee A, Ramasawmy D, Pugo-Gunsam P, Jeewon R. An assessment of the breastfeeding practices and infant feeding pattern among mothers in Mauritius. *J Nutr Metab*. 2013 [cited 10 May 2017]. Available from: <https://www.hindawi.com/journals/jnme/2013/243852/>
9. Gultie T, Sebsibie G. Determinants of suboptimal breastfeeding practice in Debre Berhan town, Ethiopia: a cross sectional study. *Int Breastfeed J*. 2016;11:5.
10. Lewallen LY, Dick MJ, Flowers J, Powell W, Zickefoose KT, Wall YG, et al. Breastfeeding support and early cessation. *JOGNN*. 2006;35:166–72.
11. Odom EC, Li R, Scanlon KS, Perrine CG, Grummer-Strawn L. Reasons for earlier than desired cessation of breastfeeding. *Pediatrics*. 2013;131:e726–32.
12. Wenzel D, Ocaña-Riola R, Maroto-Navarro G, Buongiorno de Souza SA. Multilevel model for the study of breastfeeding determinants in Brazil. *Matern Child Nutr*. 2010;6:318–27.
13. Labarere J, Gelbert-Baudino N, Ayrat AS, Duc C, Berchotteau M, Bouchon N, et al. Efficacy of breastfeeding support provided by trained clinicians during an early, routine, preventive visit: a prospective, randomized, open trial of 226 mother–infant pairs. *Pediatrics*. 2005;115:e139–46.
14. Piwoz EG, Huffman SL, Lusk D, Zehner ER, O'Gara C. Issues, risks, and challenges of early breastfeeding cessation to reduce postnatal transmission of HIV in Africa 2001. Washington, DC, USA: Project Academy for Educational Development; 2001.
15. Dinç A, Dombaz İ, Dinç D. Traditional practices related to breast milk and breastfeeding of mothers with babies of 6–18 months. *BSBD*. 2015;4:125–30.
16. Creswell JW. Research design: qualitative, quantitative, and mixed methods approaches. 2nd ed Thousand Oaks, CA: Sage; 2003.
17. Polit DF, Beck CT. Essentials of nursing research. Appraising evidence for nursing practice. Philadelphia: Lippincott Williams & Wilkins; 2013.
18. Ball HL, Howel D, Bryant A, Best E, Russell C, Ward-Platt M. Bed-sharing by breastfeeding mothers: who bed-shares and what is the relationship with breastfeeding duration? *Acta Paediatr*. 2016;105:628–34.
19. Health Canada. Duration of exclusive breastfeeding in Canada: key statistics and graphics (2009–2010); 2012 [cited 25 July

- 2016]. Available from: <http://www.hcsc.gc.ca/fn-an/surveill/nutrition/commun/prenatal/exclusive-exclusifeng.Php>
20. Turkish Population and Health Research (TPHR). Nutritional status of children and mothers; 2013 [cited 25 August 2016]. Available from: http://www.hips.hacettepe.edu.tr/tnsa2013/rapor/TNSA_2013_ana_rapor.pdf
 21. Radwan H. Patterns and determinants of breastfeeding and complementary feeding practices of Emirati mothers in the United Arab Emirates. *BMC Public Health*. 2013;13:171.
 22. Gardner H, Green K, Gardner A. Infant feeding practices of Emirati women in the rapidly developing city of Abu Dhabi, United Arab Emirates. *Int J Environ Res Public Health*. 2015;12:10923–40.
 23. Feldens CA, Vitolo MR, Rauber F, Cruz LN, Hilgert JB. Risk factors for discontinuing breastfeeding in southern Brazil: a survival analysis. *Matern Child Health J*. 2012;16:1257–65.
 24. Vieira GO, Reis MR, Vieira TO, Oliveira NF, Silva LR, Giugliani ER. Trends in breastfeeding indicators in a city of northeastern Brazil. *J Pediatr (Rio J)*. 2015;91:270–7.
 25. Miller MP, Common ML. The benefits of attachment parenting for infants and children: a behavioral developmental view. *BDB*. 2010;16:1–14.
 26. Canadian Paediatric Society. Weaning from the breast. *Paediatr Child Health*. 2004;9:249–53.