



Weaning Reasons, Practices and Total Duration of Breastfeeding in Physician Mothers

Doktor Annelerde Toplam Emzirme Süresi, Memeden Ayırma Nedenleri ve Yöntemlerinin İncelenmesi

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ABSTRACT

Aim: The World Health Organization (WHO) recommends breastfeeding until 2 years of age or beyond. As there are no global scientific recommendations about when and how to wean, general acceptance is that gradual weaning could be less traumatic for baby-mother dyad. Our study aimed to determine the duration of breastfeeding, reasons for ending breastfeeding and weaning practices in Turkish physician mothers.

Materials and Methods: This descriptive cross-sectional study was conducted with a web-based survey formed by the researchers. Survey asking about demographics, knowledge about WHO recommendations for breastfeeding and weaning reasons and practices in detail was electronically delivered to Turkish physician mothers over the electronic social platform group 'physician mothers', which had 14600 members.

Results: Replies from 195 physician mothers showed a mean breastfeeding duration of 23.26±7.01 months. Almost half of the children were breastfed beyond 24 months. The main reason for ending breastfeeding was observed as thinking that breastfeeding duration was sufficient. The most common method used for weaning was talking to the child and weaning gradually. However, it was observed that 34.2% still used traditional methods, such as applying foreign substances to breasts which could cause abrupt weaning.

Conclusion: In our study, physician mothers had a longer breastfeeding duration than general population and traditional weaning practices were seen in a lower ratio in this group than in general population. On the other hand, our results show that physicians still need more education about breastfeeding beyond two years of age and weaning practices. Moreover, more studies are needed in the literature about short and long term effects of weaning practices.

Keywords: Breastfeeding, lactation, physicians, weaning

ÖZ

Amaç: Dünya Sağlık Örgütü (DSÖ) anne sütü ile beslenmenin iki yaş ve sonrasına kadar sürdürülmesini önermektedir. Anne sütü ile beslenmenin sonlandırılmasının ne zaman ve ne şekilde yapılması gerektiğine dair literatürde bilimsel veriler olmamakla birlikte genel kabul uzun süreli ve kademeli bir şekilde ayırmanın anne ve bebek açısından daha az travmatik olacağı yönündedir. Çalışmamız doktor annelerde toplam emzirme süresini, emzirmeyi sonlandırma nedenlerini ve emzirmeyi sonlandırma yöntemlerini belirlemeyi amaçlamıştır.

Gereç ve Yöntem: Tanımlayıcı kesitsel bir çalışma olarak tasarlanan araştırmamız, araştırmacılar tarafınca oluşturulan elektronik internet-tabanlı bir anket formu ile gerçekleştirildi. Anket formu gönüllü doktor annelerin demografik bilgilerini, DSÖ anne sütü ile beslenme önerileri hakkındaki bilgilerini ve detaylı olarak memeden ayırma nedenlerini ve yöntemlerini inceleyen sorulardan oluşmaktaydı. Anket formu Türk doktor annelere yaklaşık 14600 üyeden oluşan elektronik sosyal medya 'doktor anneler' grubu üzerinden ulaştırıldı.

Bulgular: Kriterlere uyan 195 anneden gelen yanıtlar ile ortalama emzirme süresi 23,26±7,01 ay olarak gözlemlendi. Çocukların yarıya yakını 24 aydan sonra da anne sütü almıştı. Anne sütünü kesmek için en sık görülen neden 'anne sütü alma süresinin yeterli olduğunu düşünme' idi. Memeden ayırma için en sık kullanılan yöntem çocukla konuşarak ve kademeli olarak ayırma idi. Ancak doktor annelerin %34,2'sinin memeye yabancı cisim koyma veya sürme gibi geleneksel ve memeden ani ayrılma ile sonuçlanacak yöntemleri kullandığı gözlemlendi.

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Sonuç: Çalışmamızda doktor annelerin emzirme süresi genel popülasyonu inceleyen çalışmalar ile kıyaslandığında daha uzun olarak izlendi ve geleneksel memeden ayırma yöntemlerinin kullanılma oranı da daha az olarak görüldü. Ancak çalışmamız halen doktorların 24 ay sonrasında emzirme ve memeden ayırma süreci hakkında daha çok eğitime ihtiyacı olduğuna işaret etmektedir. Ayrıca literatürde memeden ayırma süreci ve bunun kısa ve uzun dönem etkileri ile ilgili de daha çok çalışmaya ihtiyaç vardır.

Anahtar Kelimeler: Anne sütü ile beslenme, emzirme, doktorlar, memeden ayırma

INTRODUCTION

Breastfeeding is the gold standard in infant feeding. The World Health Organization (WHO) and Turkish Ministry of Health recommend exclusive breastfeeding until 6 months of age and continuation of breastfeeding until 2 years of age or beyond^{1,2}. Children who are breastfed longer periods have lower infectious mortality and morbidity, fewer dental malocclusions and higher intelligence than those who are breastfed for shorter periods or not breastfed³. Breastfeeding is now known to protect against overweight and diabetes later in life⁴. It also benefits mothers by preventing breast cancer, improving birth spacing and reducing risk of ovarian cancer³.

In cultures where there is no special pressure to wean, children usually stop breastfeeding between two and a half and seven years of age. There are no global recommendations on when to wean after 2 years of age, with the fact that breastfeeding is good for mother and child at any age, and no evidence has been found on developmental harm from breastfeeding an older child⁵. There are not also global recommendations on how to wean as that is a personalized decision but general acceptance is that gradual weaning over weeks or even months can be applied if there is no urgent medical issue that requires cessation of breastfeeding in a shorter time period^{6,7}.

In Türkiye, approximately 98% of all births take place in 'Baby Friendly Hospitals' and 96.6% of primary 'Family Health Centers' are 'Baby Friendly' according to WHO and United Nations Children's Fund standards⁸. Every health care worker, including physicians working in these hospitals, are required to get a post-graduate education about breastfeeding, which should be repeated every five years². The Turkish law allows a legal paid leave of total 16 weeks, which can be used from the 32nd week of pregnancy, and mothers can also have up to two years of unpaid leave after the end of the paid leave. In addition, after returning to work, legal leave for breastfeeding is three hours/day for the first six months and one and a half hours/day for the second six months after the end of paid maternity leave⁹.

In the literature, there are not many studies focusing on weaning practices of mothers globally and in Türkiye. Our study aimed to determine the duration of breastfeeding, reasons for ending breastfeeding and weaning practices in Turkish physician mothers.

MATERIALS AND METHODS

The present study was designed as a descriptive cross-sectional study and conducted with a web-based survey form. The study was approved by University of Health Sciences Türkiye, İstanbul Training and Research Hospital, Local Ethical Board and conducted in date 10.02.2023 and decision no: 30.

Study Population and Sample

Study population consisted of female physicians living in Türkiye. A web-based electronic survey form was delivered via 'doctor mothers' Facebook group, which consists of approximately 14600 female physicians who are also mothers, and answers from volunteering physicians were collected online.

Inclusion criteria were determined as: 1) Being a physician currently living in Türkiye, 2) Having at least one child younger than five years of age, 3) That child younger than five years having been breastfed for some while, 4) That child younger than five years having been weaned from breastfeeding. Exclusion criteria were living abroad and not breastfeeding the child younger than five years at any time.

Data

Data were collected by a web-based electronic survey formed by the researchers, based on the literature^{10,11}. The first part of the electronic form explained the aims of the study and stated that continuing to the survey with the 'continue' button would mean giving informed consent for the study. That page also stated that no personal information was collected. Informative text also mentioned that questions in the survey were not compulsory and volunteers could leave and also withdraw their consent whenever they wanted with the provided contact information.

Survey consisted of 19 questions which took approximately five minutes to answer after consenting. Most of the questions were structured as multiple choice questions with an alternative 'other' option containing an explanatory text area. Some questions required one or two-word text answers. The first seven questions asked about demographics including age, branch, place of work, title, birth date of the child and gestational age of the child. Next two multiple choice questions asked whether they received any postgraduate training on breastfeeding and the age that WHO recommends breastfeeding cessation. The last ten questions asked about

personal breastfeeding and weaning practices. The first part consisted of questions about breastfeeding duration in months, if she was able to breastfeed as long as she desired, how long the weaning process lasted, reasons for ending breastfeeding and weaning practices. Questions about weaning practices included a question that asked participants if they weaned gradually, in a time process longer than a week, or abruptly, in a time process shorter than a week. Participants were asked if they could end breastfeeding at the first trial, and the reason was also investigated if they were not able to. In addition, the main reasons for weaning and main method of weaning were questioned. One question asked participants to note if they put or applied any kind of foreign substance or gel to their breasts or nipples. Last questions asked if the mother returned to work and if she did, what the age of the baby was when she returned. Also, it was asked whether she could use her legal leave for breastfeeding after returning to work, which is three hours/day for the first six months and one and a half hours/day for the second six months according to the Turkish law.

Statistical Analysis

A descriptive statistics method was used to describe the characteristics of the study group. Statistical tests employed for the relationships between variants included the Fisher's test, Yates test, and Pearson's chi-square test. A p value of <0.05 was defined as statistically significant. Statistical analysis was conducted with Statistical Package for the Social Sciences software (version 20.0, IBM, 2010).

RESULTS

The study was concluded with replies from 195 physicians who met the inclusion criteria. The mean age of physicians was 35.3±3.7 years. Participants were mostly specialist physicians (56.9%, n=111), followed by residents (16.4%, n=32). Rest of the participants consisted of dentists, general practitioner physicians, assistant professors, and professors. Participating physicians worked in a wide range of institutions including but not limited to education and training hospitals (31.3%, n=61), university hospitals (21.5%, n=42), government hospitals (20%, n=39), primary family health centers (12.3%, n=24), private hospitals (3.6%, n=7), their own practices (3.6%, n=7), and 2.6% (n=5) were unemployed. The most common specialty was family medicine (19%, n=37), followed by pediatrics (13.3%, n=26). Rest of the physicians were specialized at many different branches of internal, surgical and basic medical sciences.

Age range of the children of the participants was 5-59 months, with the mean age of 37.55±11.73 months. The mean gestational age of the children was 38.38±1.96 weeks.

Of participating physicians, 53.8% (n=105) declared that they did not get a post-graduate training about breastfeeding, whereas 46.2% (n=90) got a post-graduate training. Knowledge about WHO recommendations on breastfeeding duration is shown in Table 1. Of participants, 93.8% knew the WHO recommendations correctly.

The mean total breastfeeding duration was 23.26±7.01 months with a range of 3-43 months. Table 2 shows total breastfeeding durations, 45.6% (n=89) of the participants' children were breastfed beyond 24 months of age. The only factor found to have a statistically significant relationship with breastfeeding duration was correct knowledge of WHO breastfeeding recommendations (p=0.008). Majority of the participants (80.5%, n=157) stated they breastfed as much time as they desired or planned beforehand, whereas 19.5% (n=38) stated they could not.

For more than half of the participants (51.3%, n=100), the main reason for ending breastfeeding was thinking that breastfeeding duration was sufficient. Other reasons are shown in detail in Table 3. Of 195 participants, 167 participants reported to terminate breastfeeding themselves. When the process of weaning was examined, it was seen that 59.3% (n=99) weaned gradually, in a time process longer than a week, whereas 40.7% (n=68) weaned abruptly, in a time process shorter than a week. Methods used in weaning is summarized in Table 4. The most common method used by 56.3% (n=94) of participants was talking with the child to persuade for weaning. The most commonly applied foreign substance to the nipple was band-aids used by 77% of the 31 participants who applied foreign substances to the nipples to make a hurt

Table 1. Knowledge of physicians about WHO recommendations on breastfeeding duration

WHO recommendations on breastfeeding duration		
	Frequency	Percent
12 months	2	1.0
12-18 months	2	1.0
18 months or beyond	8	4.1
24 months or beyond	183	93.8
Total	195	100.0

WHO: World Health Organization

Table 2. Breastfeeding duration of the children of the participating physicians

Breastfeeding duration		
	Frequency	Percent
0-12 months	18	9.2
12-24 months	88	45.1
>24 months	89	45.6
Total	195	100.0

Table 3. Main reasons for ending breastfeeding		
Main reason for ending breastfeeding		
	Frequency	Percent
Thinking that breastfeeding duration was sufficient	100	51.3
For baby to wake up less frequently at night	22	11.3
Child stopped breastfeeding	21	10.8
Medical reasons (mother or child)	17	8.7
Lack of or insufficient amount of milk	8	4.1
New pregnancy	7	3.6
Starting night shifts	6	3.1
Tired of breastfeeding	5	2.6
For baby to eat more complementary food	3	1.5
Started working	2	1.0
Other*	4	2.1
Total	195	100.0

*Other was specified as having problems with an older child, knowledge that psychiatrists not recommending breastfeeding beyond 2 years of age, work conditions in the pandemic, social pressure to wean

Table 4. Methods used in weaning practices		
Method of weaning		
	Frequency	Percent
Talking to the child (persuasion)	94	56.3
Applying a foreign substance to create a frightening/saddening effect	31	18.6
Applying a substance with a bitter taste/smell	26	15.6
Not letting the baby suck*	14	8.4
Switching with formula/cow's milk	1	0.6
Separation due to compulsory service of the mother	1	0.6
Total	167	100.0

*By distracting the child or switching from clothes with zippers to high necks to make access harder

or frightening effect. Other substances were specified as black tape, cotton, hair, coffee grounds, black paint, and lipstick. The main foreign substances applied to change the taste or smell of the nipples were aloe vera (sabr) used by 38% (n=10) and tomato paste used by 19.2% (n=5) of the 26 participants that used the method. Others were specified as vinegar, lemon juice, sugar and salt, bitter nail polish, and sumac.

Majority of the participants (81.4%, n=136) succeeded in weaning at the first attempt. Of 18.5% (n=31) who could not wean at the first attempt, the main reason was baby crying a lot (80%, n=24). Other reasons were method not working (16.7%, n=5) and social pressure to keep breastfeeding (3.3%, n=1).

Of 195 participants, 190 returned to work after their baby was born with the average time of 11.50 ± 7.75 months. Of the 132 participants who returned to work in the first year after their paid maternity leave, 78% (n=103) properly used their legal daily leave for breastfeeding. 18.9% (n=25) declared that they used their legal daily leave partially (could not leave every work day or had to leave for less hours than the legal allowance), and 3% (n=4) stated they could not use their legal daily breastfeeding leave at all.

DISCUSSION

In our study evaluating the breastfeeding duration, reasons for ending breastfeeding and weaning practices in 195 physician mothers from a wide range of specialties and different work settings, the mean breastfeeding duration was found as 23.26 ± 7.01 months, mostly gradually weaning with the most common method of talking with the child to persuade for weaning.

The mean breastfeeding duration was found as 23.26 ± 7.01 months, with 45.6% of participating physicians breastfeeding beyond 24 months. The mean breastfeeding duration can be considered very close to WHO recommendations, and it is longer than the median breastfeeding duration of Turkish mothers of 16.7 months, according to the Türkiye Demographic and Health Survey 2018. The same survey also shows that only 34% of Turkish children in general population are breastfed until two years of age, which is less than 45.6% of breastfeeding beyond two years of age found in our study¹². These differences from general population can be attributed to better general knowledge of breastfeeding among physician mothers, which is also supported by our findings that 93.8% of the participants knew WHO breastfeeding recommendations and correct knowledge of these recommendations was the only statistically significant factor affecting breastfeeding duration in our study.

The most common reason for weaning was thinking that breastfeeding duration was sufficient (51.3%). Still, approximately 14.9% of physician mothers had to stop breastfeeding because the child stopped breastfeeding and due to lack of or insufficient amount of milk. These are two issues that can mostly be addressed with lactation consultation. These reasons for ending breastfeeding were lower than in general population studies in Türkiye (31% in Gürarlan Baş et al.¹¹ and 46% in Aksoy et al.¹⁰) but this may still suggest that even physician mothers have barriers in asking for or reaching lactation consultation.

Our study shows that 59.3% of the participating physician mothers weaned from breastfeeding gradually, which is consistent with the current recommendations^{6,7,13}. When the method for weaning was investigated, it was seen that 56.3%

of the physician mothers used the non-traditional method of talking with the child to persuade for weaning, whereas 34.2% used traditional methods of applying a foreign substance to create a frightening/hurt effect and applying a substance with a bitter taste/smell. Oflu¹⁴ found an 85.9% usage of traditional methods and Aksoy et al.¹⁰ found 58.7% usage of traditional methods in their studies on weaning practices in Türkiye. Applying foreign substances such as aloe vera, coffee, lipstick, vinegar, and lemon is a common method of weaning in many cultures, which is expected to result in abrupt weaning from breastfeeding^{10,15,16}. Issue of weaning practices is not adequately addressed in the scientific literature; it is generally suggested that abrupt weaning might be more traumatic to the infant than gradual weaning¹⁷. Our study shows that physician mothers used traditional methods and abrupt weaning much less than the general population but still a non-small percentage of 34.2% was detected to use traditional methods. As 53.8% of participating physicians declared that they did not get a post-graduate training about breastfeeding, this might result from lack of knowledge on the area or from cultural effects since traditional practices are still widely used in our country.

In our study, 78% of the physicians could use their legal leave for breastfeeding, whereas 18.9% could use the leave partially. A study evaluating Turkish female physicians conducted in 2014 showed that 50% of the mother physicians could use their breastfeeding leave over then (under the same regulatory law)¹⁸. Our study shows that there is a marked increase in nine years in terms of execution of the law, but there is still more improvement needed for universal and equal coverage among all physician mothers.

Study Limitations

The strength of our study lies in the facts that only mothers with children younger than 5 years were included, which makes our results more trustable, and replies we received belonged to a wide range of medical specialties and workplaces, which increases our sample's representation for the universe we targeted. However, the relatively small sample size can be considered as the limitation of our study.

CONCLUSION

It is known that personal experience is a strong predictor for a physician's behavior and advocacy about breastfeeding. In our study, physician mothers had a longer breastfeeding period than general population and more than half of the physician mothers implemented the suggested practices while weaning from breastfeeding. To have further better breastfeeding and weaning experiences and to give better breastfeeding advice, especially about the weaning practices, physicians need improvement in their graduate and post-graduate education

about breastfeeding beyond two years of age and weaning practices. In addition, more studies are needed on the weaning practices and their short and long term effects on children to fill the gap in the literature on the subject.

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Ethics

Ethics Committee Approval: The study was approved by University of Health Sciences Türkiye, İstanbul Training and Research Hospital, Local Ethical Board and conducted in date 10.02.2023 and decision no: 30.

Informed Consent: Consent form was filled out by all participants.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Concept - Design - Data Collection or Processing - Analysis or Interpretation - Literature Search - Writing: E.Ş., A.E., Ş.K.

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