







Original Article

Breastfeeding status of Syrian infants at a tertiary hospital in Turkey: a single-center study

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Abstract

Objective: Turkey is home to the largest refugee population in the world, with approximately half of all refugees being children who are at high risk of developmental issues due to the disruption and lack of resources they have experienced. Syrian refugee children in Turkey face various risks to their health and well-being, including communicable and non-communicable diseases, post-traumatic stress disorder, depression, domestic violence, child labor, and child marriage. This study aimed to investigate the breastfeeding status of Syrian mothers, who are a disadvantaged group in Turkey due to migration. The study also aimed to contribute to the literature.

Methods: This was a retrospective observational study using data from medical records of Syrian infants who were followed in our hospital at the neonatal intensive care unit, delivery room, and puerperal service between January 1, 2020, and January 1, 2022. The breastfeeding status of Syrian women who gave birth in our hospital and their babies were followed for a year.

Results: A total of 10,312 births occurred at our hospital between January 1, 2020, and January 1, 2022. Of these, 17% (n=1,754) were Syrian children. Of the Syrian infants, 52.6% were female (n=922) and 47.4% were male (n=832). A total of 2% (n=212) of all infants and 2% (n=37) of Syrian infants were born prematurely. The majority of preterm cases, specifically 72% of all cases and 84% of Syrian cases, were followed in the neonatal intensive care unit. A total of 40.1% (n=705) of Syrian infants are classified as low birthweight (LBW), 6.7% (n=119) as very low birthweight (VLBW), and 1.8% (n=33) as extremely low birthweight (ELBW). The proportion of infants who were breastfed within one hour of birth was 68% (n=1193), while 20.9% (n=368) received prelacteal food. The proportion of infants who were exclusively breastfed for the first six months was 48.2% (n=845), while 44.7% (n=784) were bottle-fed. The proportion of infants who were breastfed for one year was 53.6% (n=940).

Conclusion: There have been very few studies on migrant children in our country, and what we know about breastfeeding is limited. Increasing studies and raising awareness on this issue will be more beneficial for refugee children. We should provide refugee mothers with regular breastfeeding training and psychological and social support. In our study, we observed that Syrian mothers benefited from breastfeeding training during the outpatient clinic monitoring process.

Keywords: Breastfeeding, infant, low birthweight, neonate, refugee.

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INTRODUCTION

The Syrian civil war that started in March 2011 has led to the displacement of 6.3 million refugees, mostly to neighboring countries. The number of refugees worldwide has been on the rise due to the persistence of wars and the occurrence of national and political expulsions. Turkey is home to the largest refugee population in the world, with approximately half of all refugees being children who are at high risk of developmental issues due to the disruption and lack of resources they have experienced. Syrian refugee children in Turkey face various risks to their health and well-being, including communicable and non-communicable diseases, post-traumatic stress disorder, depression, domestic violence, child labor, and child marriage. The refugee population is generally in the low-income group and has difficulty accessing basic and nutrient-rich foods (1-3).

Turkey is currently home to an estimated 3.6 million Syrian refugees, 23% of whom are of reproductive age (15–49 years), 46% are under the age of 18, and 14% are children aged 0–4 years. According to the 2022 data from the Ministry of Health, 754,000 Syrian children were born in our country (3-5). WHO recommends that infants start breastfeeding within one hour of birth and are exclusively breastfed for six months, followed by the timely introduction of adequate, safe, and properly fed complementary foods with continued breastfeeding until at least 24 months of age. However, according to the 2019 Turkish Demographic and Health Survey, only 73% of Syrian babies are breastfed within one hour of birth, 24% of babies receive prelacteal food, and only about half (51.6%) of children aged 0–5 months are exclusively breastfed. The same study reported that 71% of Turkish babies were breastfed within an hour of birth, 42% of babies received food before breastfeeding, and only 41% of children aged 0-5 months were exclusively breastfed (4,5). It has been found that most Syrian women have positive attitudes towards breastfeeding, but the duration of breastfeeding is less than six months for most refugees. In addition, the findings of the studies indicate that Syrian refugee women who do not receive social support from their husbands and relatives have stopped breastfeeding (4-6).

This study aimed to investigate the breastfeeding status of Syrian mothers, who are a disadvantaged group in Turkey due to migration.

MATERIALS AND METHODS

This was a retrospective observational study using data from medical records of Syrian infants that was followed in our hospital at the neonatal intensive care unit, delivery room, and puerperal service between January 1, 2020, and January 1, 2022. The breastfeeding status of Syrian women who gave birth in our hospital and their babies were followed for a year. During the follow-up of Syrian mothers and babies, conditions such as exclusive breastfeeding for the first six months, receiving prelacteal feeding, bottle feeding, and breastfeeding for a year were evaluated. Ethics approval was received from the ethics committee of Sancaktepe Training and Research Hospital, non-invasive research ethics committee. (Date: 06/15/2022 Number: E-46059653-020-553). The study was conducted in accordance with the Declaration of Helsinki.

Inclusion and exclusion criteria for the study: The study population comprised Syrian mothers of childbearing age (15–49 years), with the exclusion of those with chronic illnesses and/or unable to breastfeed their babies due to other conditions such as medication use.

Statistical Analysis

SPSS program (Version 21, Chicago, SPSS Inc., USA) will be used for statistical analysis and data recording. The mean \pm standard deviation (SD) represents a non-parametric value for a parametric value in descriptive statistics. The median (median), minimum (min), and maximum (max) are used for frequency analysis, while the n number and percentage (%) values are also employed. The conformity of the data to the normal distribution will be tested using the Kolmogorov-Smirnov test. For quantitative data

comparing two groups, the t-test, Mann-Whitney U, Kruskal-Wallis, one-way ANOVA, and Chi-square tests will be employed. The Chi-square test will also be applied to qualitative data when comparing independent groups, while the McNemar test will be used for dependent groups. Pearson or Spearman test will be used for correlation in relationship analysis, and linear or logistic regression tests will be used in modeling. For statistical significance, cases where the p-value is below 0.05 will be accepted.

RESULTS

A total of 10,312 births occurred at our hospital between January 1, 2020, and January 1, 2022. Of these, 17% (n=1754) were Syrian children. Of the Syrian infants, 52.6% were female (n=922) and 47.4% were male (n=832). A total of 2% (n=212) of all infants and 2% (n=37) of Syrian infants were born prematurely. The majority of preterm cases, specifically 72% of all cases and 84% of Syrian cases, were followed in the neonatal intensive care unit. A total of 705 Syrian infants (40.1%) were classified as low birthweight (LBW), while 119 (6.7%) were identified as very low birthweight (VLBW) and 33 (1.8%) as extremely low birthweight (ELBW). (Table 1).

Table 1. Characteristics of Syrian infants

Characteristics		n	%
Sex	Male	832	47.4
	Female	922	52.6
Gestational age	Term	1717	97.9
	Preterm	37	2.1
Birthweight	LBW	705	40.1
	VLBW	119	6.7
	ELBW	33	1.8

Abbreviations: LBW: Low Birthweight, VLBW: Very Low Birthweight, ELBW: Extremely Low Birthweight.

After all deliveries, mothers were given training on baby care, breastmilk, and breastfeeding by our expert team. Communication was established with the mothers of Syrian children through our hospital's staff translators and health ministry translators. The breastfeeding status of Syrian infants was examined, revealing that 68% (n=1193) were breastfed within one hour of birth, 20.9% (n=368) received prelacteal food, 48.2% (n=845) were exclusively breastfed for the first six months, 44.7% (n=784) were bottle-fed, and 53.6% (n=940) were breastfed for at least one year. Breastfeeding characteristics of Syrian infants are given in Table 2.

Table 2. Breastfeeding characteristics of Syrian infants

Breastfeeding characteristics	n	%
Breastfed within one hour of birth	1193	68
Receive prelacteal food	368	20.9
Exclusively breastfed (0-6 months)	845	48.2
Bottlefeeding	784	44.7
Breastfeeding (1 year)	940	53.6

It has been observed that 66% of mothers of Syrian infants have insufficient experience in breastfeeding. Following the initial training session for mothers in the delivery room, the postnatal/puerperal service, and the neonatal intensive care unit, the mothers and their infants were subsequently referred to the outpatient clinic for follow-up.

DISCUSSION

The rate of those who initiated breastfeeding within an hour after delivery was 61.4% for the Syrians and 71.1% for the Turkish mothers. In addition, the rates of exclusive breastfeeding (28.1 versus 34.1) and continuing breastfeeding for 12 months (55.0 versus 63.8) were lower in the Syrian refugee mothers. Maternal age and educational level were not correlated to the breastfeeding rates (7). The results of our study indicated that 68% of Syrian mothers initiated breastfeeding within an hour of birth, 48.2% practiced exclusive breastfeeding for the first six months, and 53.6% continued breastfeeding for 12 months.

A study was conducted to describe the feeding practices, nutrition, and related health aspects of infants under six months of age among Syrian refugees in Beirut, Lebanon. The results indicated that the prevalence of feeding before breastfeeding was high (62.5%), yet the early initiation of breastfeeding (breastfeeding within one hour of birth) was low (31%) and exclusive breastfeeding (first six months) was very low (24.6%) (8). Our findings revealed that the prevalence of feeding before breastfeeding was 20.9%. Our rates of early initiation of breastfeeding and exclusive breastfeeding were comparatively higher.

The short duration of breastfeeding among Syrian refugees was found to be associated with cultural norms and the process of migration. Some cultural characteristics can be summarized as "believing that breastfeeding harms mother's health," "adolescent marriages," "wanting to have as many children as possible," "giving anise to infants and not breastfeeding at night," "prelacteal feeding," "believing that milk is not enough," "overcontrolling mother-child interaction by grandmothers, which limits the interaction," "short pregnancy intervals," and "not using modern family planning techniques" (9). Adolescent marriages were also common in the Syrian population in our region. The intervals between pregnancies were short (<18 months). The number of children in families was high (>3). The mothers had a low level of education. In addition, mothers had insufficient knowledge about baby care and breastfeeding. Some mothers did not want to breastfeed their babies due to their social beliefs and traditions. The study revealed the existence of a wet nurse tradition in Syria and some Arab countries.

In a study conducted with refugee children and their families in Izmir, it was observed that Syrian refugee children and their families who migrated due to the war in their country needed social and emotional support. It was reported that health workers should be more sensitive about this issue and that social work and emotional support groups should be established (10). In our hospital, we try to provide social and emotional support to refugee families and children in collaboration with our social workers.

In a study conducted by evaluating all regions in our country, the breastfeeding rate in Syrian children under the age of two was found to be 62.4%, and the total median breastfeeding duration was 14.6 months. The study revealed a positive correlation between the length of time that mothers had resided in Turkey and their current breastfeeding rates. It was found that breastfeeding rates were especially higher in those living in the eastern and southern regions of our country (65.1% and 65.2%) (4,11). In our study, we found that the breastfeeding rate among Syrian women with children under two years was 54.6%, and the total median breastfeeding duration was 13.4 months.

In a study conducted by interviewing Syrian health workers in our country, only 40.0% of health workers reported that their babies were predominantly breastfed for the first three days after birth. Additionally, 45.2% of the respondents indicated that mothers usually used sugar water before breastfeeding, while 30.5% believed that breastfeeding was stopped before 12 months. The main barriers to breastfeeding

identified by health workers included lack of education, maternal mental and physical health problems, food insecurity, low income, inadequate housing, lack of family planning, sociocultural environment, and limited access to quality health services (12).

In a study conducted with Syrian mothers, it was determined that mothers need social support and that mothers with good social support are more willing to breastfeed (13). In the study conducted by Orhan and his colleagues in Mardin, it was determined that the postpartum breastfeeding rate among Turkish citizens was 91.3% and the breastfeeding duration was 12 (0-24) months; and among Syrian refugees, the breastfeeding rate was 84.6%, and the average breastfeeding duration was 9 (0-24) months. A significant difference was observed between the two groups with regard to the proportion of individuals who had received breastfeeding education, with 23.8% of Turkish citizens and 5.1% of Syrian refugees (14). The results of a qualitative study conducted with refugee mothers in Canada indicate that a number of factors, including psychosocial barriers, healthcare barriers, environmental barriers, and maternal and child health barriers, may act as impediments to the breastfeeding practices of refugee mothers (15). In a study conducted with refugee mothers in Portugal, only 40% of mothers received prenatal counseling on the benefits and management of breastfeeding, showing a positive correlation between mothers' breastfeeding attitudes and breastfeeding knowledge (16). During our first visit to Syrian mothers after their babies were born, we observed that their belief and interest in breastfeeding was low. When we provided training to the families through our translator, we observed that they were more interested.

Limitations: Syrian mothers were generally compliant at the first postpartum visit. They participated in breastfeeding training. We tried to overcome the language barrier with the mothers with the hospital's translator. During long-term follow-up, we observed that some of the mothers tried bottle-feeding in the early period, and some switched to complementary feeding. Despite all the warnings we made in the outpatient clinic, we observed that some habits did not change. We realized that the concept of wet nurse is well-established in Arab society and that some mothers do not approve of breastfeeding. Since our study only shows the data of our hospital and region, it does not reflect the entire Syrian population in our country. This was another limitation of the study. A multicenter study will provide more concrete data.

CONCLUSION

There have been very few studies on child migrants in our country. Our knowledge about breastfeeding is limited. Increasing studies and raising awareness on this issue will be more beneficial for refugee children. We should regularly provide training to refugee mothers on breastfeeding and support them psychologically and socially. In our study, we observed that Syrian mothers benefited from breastfeeding training during the outpatient clinic monitoring process.

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