

## Wet-Nurse and Breast Milk Bank

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### Abstract

Breastmilk is a natural, easy-to-digest food with high-bioavailability that meets the neonate's optimum growth and development needs in terms of the components it contains. Breastmilk and breastfeeding have many benefits for both the baby and the mother. However, some infants cannot be breastfed after birth for various reasons (mother's death, etc.). For such situations, the WHO, UNICEF and the Ministry of Health (Turkey) propose that another mother can breastfeed the infant. The concept of "mother's milk bank", which has been practiced in our country for many years, corresponds to this suggestion. However, the prevalence of diseases such as AIDS, hepatitis and the rapid growth of the formula industry have led to the abandonment of this traditional practice over the years. In many countries, mother's milk banks have been established to solve this problem. However, the few studies done in our country show that there are divergent views on the establishment of mother's milk banks. As a result, the possibility of creating an acceptable version of mother's milk bank in our country needs to be discussed. As another result, instead of the mother's milk banks, "wet nurse centers" can be established to offer the same service in Turkey. Thus, the project of reviving "wet nurse and milk sibling" can be an effective solution. The aim of this study is to draw the attention of the community and the health personnel to the concept of wet-nurse and breast milk bank.

**Keywords:** Breast milk; Wet-nurse; Mother's milk bank; Infant

### Introduction

Breast milk is the most important nutritional source for the physical, cognitive and social development of infants. Breast milk is effective in newborns both in short term health outcomes and in long term growth and development [1-4]. Conditions such as diarrhea, allergies, sudden infant death syndrome and diabetes are observed less in infants who are breastfed. In premature infants in particular, breast milk is known to speed up the transition to enteral nutrition and to decrease the need for parenteral nutrition, increase growth and development, decrease necrotizing enterocolitis incidence and also have many other benefits [5,6]. In parallel with this, infants who receive breast milk have a reduced length of hospital stay and health expenses [2,7,8] and this in return makes a contribution to the social economy.

Continuing breastfeeding in the first couple of years of life when growth and development are so rapid will positively affect the physical and mental health of the child in the following years. According to the program carried out in Turkey within the framework of the "Promotion of Breastfeeding and Baby-Friendly Hospitals Program" of the World Health Organization, the key message is that "babies need to start to be breastfed right after birth and they should receive only breast milk for the first 6 months and after the 6th month they need to continue to be breastfed alongside suitable food until 2 years of age." The purpose of the program is to ensure mothers start breastfeeding their babies early and to support them in maintaining breastfeeding through the aid of health personnel (nurse, midwife, doctor, etc) [9].

Despite all these efforts, due to various reasons related to the mother or the infant, infants sometimes can be temporarily or permanently

deprived of the breast milk of their own mothers [3,10]. The World Health Organization states that in such situations, breast milk taken from another mother can be given to the infant [11]. The American Academy of Pediatrics (AAP) also emphasizes that donor breast milk should be used in infants who cannot receive breast milk from their own mothers [12]. We come across two concepts in providing the baby with donor breast milk. One of the concepts is "wet nursing" while the other is "breast milk bank".

### Definition and history of the wet nursing and breast milk bank concepts

The most important nutritional source for an infant is its mother's breast milk [8]. When we look back on history, in situations where this is not possible the concept of wet nursing is employed particularly in Turkey as an effective method [10]. Wet nurse is the name the women are called who give her breast milk to a baby other than of her own. This tradition has been in practice since time immemorial. Even in the Code of Hammurabi, which dates back to 2250 BC, we can come across the concept of wet nursing [13]. However, the prevalence of diseases such as AIDS and hepatitis and the rapid development of the baby formula industry over the years have led to the abandonment of this practice. Yet, no formula can substitute for breast milk. For this reason, it is inevitable to find a new solution fit for today's conditions. In many countries, breast milk banks were established to solve this problem. The first breast milk bank that was established (1909) is in Vienne [14]. This bank was followed by many other breast milk banks established in countries such as Germany, USA [4], Australia [15], Norway [16] and Spain [17].

Breast milk bank is defined as "a safe institution for the collection, processing and distribution of donated breast milk" [1] and is based on the concept of "wet-nursing" [10-19]. Through the pasteurization of

breast milk at breast milk banks, harmful pathogens inside the milk are removed while also many of the biologically-active contents are preserved. Therefore, breast milk banks are an important alternative for infants who cannot receive breast milk [1,4,13,15].

### Studies on wet nursing and breast milk banks

The studies that were carried out [20,21] reveal that breast milk banks have many benefits for infants. In a study conducted at a university hospital in Spain [17], it was reported that when a breast milk bank was opened in neonatal intensive care units, the amount of baby formula neonates receive within the first 4 weeks dropped. In the meta-analytic study carried out by Quigley et al. [22], it was determined that donor breast milk decreases necrotizing enterocolitis incidence in preterm infants. Different studies have also [23-25] reported that premature and low birth-weight infants who are breastfed milk taken from breast milk banks have their immune system boosted and thus are protected from many illnesses.

We can see that breast milk banks, used commonly in developed countries in the recent years, are not in use in countries majority of which are Muslims, such as Turkey. The most important underlying reason for this is that milk siblings are forbidden to marry in Islamic law [26]. Apart from that, the opinions of the society that mothers live in and whether they are given information regarding this situation also affect the outlook on breast milk banks [26,27]. In the studies conducted in Turkey on the opinions of breast milk banks, it is reported that 37.5%-90.6% of mothers do not know about breast milk banks [28-30], 28.9%-77.1% do not consider it appropriate from a religious perspective [19,28-30], 75.4%-76.8% do not lean towards milk donation due to the possibility of milk siblings marrying [19,28] and 19.1%-64.0% can donate their breast milk [28,30]. It is worth noting that 85.7% of mothers who have knowledge regarding breast milk banks have acquired this information from sources other than health personnel [29]. In a study carried out outside of Turkey [31], it was reported that although more than 90.0% of nurses and midwives think breast milk donation is important, only 71.0% lean towards establishment of breast milk banks. In a study made in Turkey [32], it was determined that health personnel have a positive opinion regarding breast milk banks but their level of knowledge is low. The studies made [24,33] suggests important responsibilities fall to health personnel in order for breast milk banks to be adopted by the society.

In the study carried out by Al-Naqeeb et al. in Kuwait, a Muslim country, in a neonatal intensive care unit [34], mothers were explained the religious aspects of donor breast milk and that hygienic rules are followed. Mothers who have sufficient knowledge about this matter accepted their infants to be given donor breast milk and as a result, it was observed that infants gained more weight and some of the birth-related complications were diminished. In this context, wet nursing and breast milk banks are good alternatives in reaching donor breast milk in a healthy way to infants while protecting its contents [1,15].

### Conclusion

Every infant must be first breastfed by its mother, and in cases where this is not possible, wet nursing or breast milk banks should be preferred. In Turkey, instead of breast milk banks, establishing "milk-mother centers", which will serve the same purpose and revival of the "milk mother and milk sibling" project, can be an effective solution. For this to be possible, first, health personnel must be informed about

the benefits and effects of this practice on infant health. This practice might fulfill a key role in raising healthy generations.

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