



(REVIEW ARTICLE)



## Midwives' education in a human milk bank of a baby friendly hospital in Greece

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### Abstract

It is widely known that education of mothers in storing their own milk and breastfeeding by midwives is essential for promoting and maintaining breastfeeding, especially for preterm infants. Midwives are key health providers who care for women and children during perinatal period. The authors aimed to highlight the training of midwives in human milk banking in a Greek Baby Friendly Hospital (BFH) based on the European Milk Banks (EMBA) guidelines. Their education includes practical and theoretical training. It is vital that midwives provided the skills to succeed in their roles effectively for the health of women, infants, and families.

**Keywords:** Midwives; Human Milk Bank; Breastfeeding; Baby Friendly Hospital; Education programs

### 1. Introduction

The protection, promotion and support breastfeeding has become a major international priority as emphasised in the Global Strategy for Infant and Young Child Feeding [1]. It is considered the best way to feed a baby and has been shown to have significant short- and long-term benefits for both mothers and infants [2]. Mothers should have access to specialist support to help them initiate and maintain good feeding practices and to prevent and overcome feeding difficulties when they occur. Experienced health professionals (midwives) should be able to provide this support and guidance. Midwives are the frontline providers for promoting exclusive breastfeeding. Recent research shows that women who had a midwife accompany them at birth were significantly more likely to breastfeed exclusively, not only at the time of discharge but also 3 months after delivery [3]. Another study reported that women receiving prenatal care from a midwife were more prone to express willingness to breastfeed compared to those receiving care from an obstetrician. In conclusion, the role of midwife seems essential when it comes to supporting mothers to breastfeed [4].

It is therefore vital that midwives acquire the skills to perform their role effectively. Preparation should start at undergraduate schools and colleges in collaboration with maternity wards. It is recommended that midwifery students be taught various breastfeeding methods and understand the physiological process of lactation. This education is provided at "Helena Venizelou" Maternity Hospital, as it has been designated as "Baby Friendly Hospital" since 2011. The hospital provides breastfeeding education programme for health professionals, such as midwives, paediatricians and other health professionals caring women at antenatal and postnatal period.

In the designation of a maternity hospital as a BFH, breastfeeding courses are provided to all health professionals in the maternity ward. The WHO/UNISEF Baby Friendly Hospital Initiative courses are the most widely used. These courses consist of 40 hours of breastfeeding counselling, which include training, management and promotion of breastfeeding for midwives, paediatricians, and obstetricians [5], while providing 18-hour courses for other staff in maternity ward [6]. As part of the courses, the WHO recommends training health professionals and students in the application of the Breast-milk Substitute Marketing Code (1981) and the Ten Steps to Successful Breastfeeding (1989) [7]. These should be implemented in every maternity hospital to ensure that every mother receives adequate education and support.

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These courses have been shown to have a positive impact on the knowledge, attitudes, practices, confidence of maternity staff and the duration of infant breastfeeding [8, 9].

All health professional and students are taught in the Guidelines for Human Milk Banking, such as definitions (table 1), donors targeting and screening (table 2), handling, storage, processing, and pooling. As is widely known, the sharing of human milk has existed since the beginning of time. Mothers either breastfed children who were not biologically related to them (wet nurses) or expressed and shared milk with a child other than their own. In early times, HMBs were developed for providing safe human milk to infants in need. The 1st HMB was established 114 years ago in Vienna (1909) and in Greece, the 1st HMB was established in 1947, reorganised in 1985; and since then, handling, storing, processing, pooling and bacterial screening of human milk follow recommendations of the National Institute for Health and Clinical Excellence (NHS-2010) and the EMBA [10, 11, 12, 13].

**Table 1** Definitions in Human Milk Banking

Milk Banks are health institutions responsible for the collection, screening, storing, processing, and distribution of donor milk
Donors are healthy women usually nurse their own infants or breastfeed their babies and have a milk supply that exceeds their own infants' needs
Donor milk is breast milk that has been expressed by a mother and provided freely to a HMB to be fed to another mother's child
Pasteurised milk is breast milk treated at 62.5 °C for 20 minutes by pasteurisation method
Pasteurisation – a heat treatment (at 62 °C for 30 min) of human milk that kills any harmful bacteria or viruses that may be in the milk, but also diminishes cellular components, anti-infective properties, growth factors and nutrients

**Table 2** Donors' screening

Human Immunodeficiency Virus (HIV-1, HIV-2)
Hepatitis B (HBV)
Hepatitis C (HCV)
Syphilis (VDRL or RPR)
Cytomegalovirus (CMV IgG and IgM)

It is widely accepted that the best source for nutrition for infants is the milk of their own mother. According to the WHO, American Academy of Pediatrics, UNICEF and European Society of Pediatrics Gastroenterology, Hepatology and Nutrition, it is recommended that feeding preterm infants with mothers' own milk is the 1<sup>st</sup> choice and when this is not available the use of human milk from other sources should be the 1<sup>st</sup> alternative. Human Milk Banks (HMBs) have an essential role in infants' health by providing human milk and supporting breastfeeding as a "bridge" between mothers and their infants. In the cases of the very preterm and extremely low birth weight infants (VLBWI), as well as other newborns in need, the preferred option is pasteurised donor milk from an established HMB. These roles of HMBs have positive clinical and physiological advantages for both mothers and their infants. The main benefit for preterm infants is the protection of two devastating medical complications, such as necrotizing enterocolitis and sepsis [14, 15].

In line with the previous reasons, the health professionals and midwifery students are trained in the operation of HMB, participate in the celebration of the World Human Milk Donation Day and in studies conducted at the HMB, in supporting mothers in breastfeeding and in the complications that may arise. One of the key roles of all scientists and especially those who treated mothers in maternity yards and preterm and fullterm infants hospitalized in NICU (e.g. neonatologists, midwives, and nurses) is to support their growth and development during this critical period. Similarly, HMBs are organised to ensure that donor milk is made available to benefit of vulnerable infants in the NICU.

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## 2. Conclusion

In conclusion, by combining breastfeeding and human milk banking education with positive reinforcement, non-judgemental attitudes, effective communication, and practical clinical skills midwives are able to support mothers to provide optimal care for their infants.

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## Compliance with the ethical standards.

### *Disclosure of conflict of interest.*

The author declare that the article was conducted without any commercial resources that could be considered as a potential conflict of interest.

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