

## **Breastfeeding: a scientific contribution to the practice of health care providers**



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The most radical changes ever in infant feeding occurred between 1850 and 1970, period in which breastmilk was being gradually replaced by other types of milk, which were increasingly modified in an attempt to resemble breastmilk. The introduction of breastmilk substitutes is certainly the largest non-controlled in vivo experiment.<sup>1</sup> According to Moysés Paciornik, no human function has been so affected, modified or artificialized as breastfeeding.<sup>2</sup> In response to the increasing abandonment of the practice of breastfeeding and due to the reported disastrous consequences of the use of industrialized milk on infant health, especially in underprivileged populations, a movement was launched in the 1970s with the aim of re-establishing the status of breastfeeding as the preferred form of infant feeding.<sup>3</sup> However, it was necessary to make people aware of the benefits of breastfeeding, providing evidence that when human milk, which took nature millions of years to improve, is replaced by the milk of other animal species, the risks of deterioration of infant health are enhanced. Thus, scientists from all over the world became interested in various aspects of breastmilk and breastfeeding, and decided to investigate

them. As a result, a broad theoretical framework was constructed, which unmistakably showed the superiority of breastmilk to its putative substitutes. Nevertheless, despite scientific advance and the great deal of effort put in by several national and international organizations, Brazilian breastfeeding rates, especially those regarding exclusive breastfeeding, are a far cry from the recommendations. In Brazil, the median duration of breastfeeding is 10 months, and that of exclusive breastfeeding is only 23 days,<sup>4</sup> contrasting with the international recommendation of six months for exclusive breastfeeding and two or more years for complementary feeding.<sup>5</sup>

Being well informed about the benefits of breastfeeding and choosing to breastfeed is not enough. In order to carry on this practice, mothers need to be in an environment that favors breastfeeding and they should rely on the support from a qualified health professional, if necessary. However, not always do health professionals have sufficient knowledge and skills to deal with the different situations that may hamper successful breastfeeding, and to some extent, this occurs because breastfeeding is a relatively new "science" and because educational material about its practice is not always available. A recent study has shown that in seven U.S. pediatric textbooks published between 1999 and 2002 (many of them widely used in Brazil), the information about breastfeeding, if not omitted, considerably varied, and was sometimes inaccurate and inconsistent.<sup>6</sup> For example, none of the books recommended complementary breastfeeding for at least one year, only one recommended exclusive breastfeeding for six months, just two recommended the initiation of breastfeeding in the first hour of life and correctly informed the contraindications to breastfeeding,

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and only three described the management of breast engorgement. Therefore, the current supplement of *Jornal de Pediatria* aims to provide up-to-date information about breastfeeding, which is important to pediatricians and other health professionals working with mothers and babies.

The first article aims to broaden the understanding of the hybrid nature (biology - culture) of breastfeeding. According to the authors, "breastfeeding, besides being biologically determined, is socioculturally conditioned, therefore constituting an act imbued with ideologies and determinants that result from concrete living conditions." This is important to understand the behavior of women (and of people around her) towards breastfeeding.

In order to promote, protect and support breastfeeding efficiently, health professionals must have large knowledge about breastfeeding, have clinical competence, and be able to communicate efficiently with the nursing mother. The article "The practice of breastfeeding counseling" discusses the basic principles of counseling, which implies helping mothers to make decisions empathically, being prepared to listen and learn, building up confidence and providing support.

The introduction of complementary foods should occur at six months, but breastfeeding should be maintained for two years or longer. Both breastmilk and complementary foods are essential to the optimal growth and development of infants. Due to the importance of this issue and to the significant changes made to current nutritional recommendations for breastfed infants, this supplement includes an article that specifically discusses this topic, providing the evidence that supports such recommendations.

The benefits of breastfeeding to infants have been much more widely studied than its benefits to mothers. However, some positive benefits to women's health are largely known. Although pediatric clinical practice is focused on the infant, issues related to the nursing mother's health have been frequently dealt with. Therefore, it is crucial that health professionals know about the benefits of breastfeeding to mothers. These benefits are discussed in the article "Benefits of breastfeeding and women's health."

In addition to having in-depth knowledge about the advantages of breastfeeding to mothers and infants, health professionals, including pediatricians, must know how to prevent and deal with the major problems that occur during breastfeeding or result from it. Breast engorgement, nipple trauma, mastitis, among others, cause nursing mothers great suffering, and may result in early weaning. Nevertheless, most pediatric textbooks do not provide the necessary information for the proper management of these problems. The article "Common problems during lactation and their management" discusses technical and practical aspects that will certainly help health professionals deal with these problems.

Another issue that is poorly discussed in the literature concerns oral dysfunctions in newborn infants. Pediatricians should be able to establish an early diagnosis and properly manage these dysfunctions. To do that, it is important to know the normal physiology of sucking in the newborn and

to know how to evaluate the breastfeeding technique judgmentally. The article "Clinical management of oral disorders in breastfeeding" aims at improving the qualification of health professionals by showing them the proper clinical management of oral dysfunctions.

It is common agreement nowadays that breastmilk is particularly important to the nutrition of preterm infants. In spite of this, the success rates regarding the breastfeeding of preterm infants are usually low, especially in neonatal intensive care units.

The article "Breastfeeding in premature infants: in-hospital clinical management" provides health professionals with subsidies to overcome the challenge of making the supply of breastmilk available to preterm infants. Kangaroo mother care, discussed in one of the articles of this supplement, facilitates the breastfeeding of preterm infants. The article "Kangaroo Mother Care: scientific evidences and impact on breastfeeding" discusses the practical aspects of this method, also providing scientific evidence of its benefits.

Many times, pediatricians have to cope with the distressing task of contraindicating breastfeeding. Therefore, they have to be sure about the recommendation to discontinue breastfeeding, even if temporarily. The articles "Recommendations for breastfeeding during maternal infections" and "Breastfeeding and maternal medications" provide an in-depth discussion on the situations that may pose a risk to the nursing infant, and give health professionals subsidies to assess the risks and benefits of breastfeeding in these situations.

And finally, we included an article that provides pediatricians and other health professionals with scientific background to discuss the current belief, especially among dentists, that breastfeeding is associated with caries development. The article "Breastfeeding and early childhood caries: a critical review" analyzes several epidemiological studies that investigated the possible correlation between breastmilk and caries development. The article provides health professionals with sufficient information to discuss the topic and take sides.

We believe that, besides being timely, this supplement makes an important contribution that allows rescuing the "breastfeeding culture and practice" in Brazil.

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