

# Do maternity hospital practices support Greek mothers' decision to breastfeed?

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## Summary

*Aim:* Previous studies have shown that the conditions in Greek maternity hospitals do not support the right of mothers and their children to breastfeed. The aim of the present report was to investigate the degree that Greek maternity hospitals have adopted the 'Ten Steps to Successful Breastfeeding'. *Methods:* The study sample comprised 140 mothers living in Athens who had recently given birth and volunteered to fill in specific questionnaires. *Results:* 40.5% of the mothers did not know what the first meal of their baby was. Regarding hospitals' practices, 68.3% of the mothers mentioned that artificial milk was brought in every meal of the neonate, while 63.6% believed that artificial milk was given to their child without their knowledge, despite the fact that they had already decided to breastfeed. Ninety percent of the mothers giving birth in public maternity hospitals and 60% delivering in private clinics mentioned that health professionals supported breastfeeding ( $p < 0.05$ ). *Conclusions:* It seems that in daily practice, Greece has not yet created an appropriate well informed and supportive environment in regard to breastfeeding.

*Key words:* Breastfeeding; Breastfeeding practice; Ten steps; Supportive environment; Decision.

## Introduction

Feeding and diet of neonates and babies are included among the issues of interest for public health, as many of the causes of child mortality stem from feeding practices. Breastfeeding decisively contributes to the good development of neonates-babies, providing them the opportunity to be protected from the influences of the external environment [1-3]. It, furthermore, contributes to securing, saving and better distribution of public health resources [4].

Despite the international declarations, recommendations and initiatives for the promotion of breastfeeding [5, 6], it is clear today that the indices describing the current situation do not comply with scientific recommendations [7]. This applies to Greece as well, since, although the percentage of mothers starting breastfeeding is generally considered satisfactory [8-11], 58.5% stop breastfeeding after the 4<sup>th</sup> month and only 17.1% continue breastfeeding for a period of 6-12 months [12].

In Greece, as well as at the international level, the main factor influencing a woman's decision to breastfeed seems to focus on the practices of health professionals as well as the relevant hospital practices [13]. Many reports have proved that women's decisions on breastfeeding are seriously influenced by midwives, pediatricians and gynecologists [14]. When no proper preparation, care and information is provided by health professionals, breastfeeding percentages are clearly reduced [15], while women wishing to breastfeed for a small period of time are especially vulnerable.

The international scientific community wishing to protect the right of mothers to information about the proper way of feeding their children ratified the Declaration on the Rights of the Child [16]. This declaration also stated that the member states of the United Nations have undertaken the obligation, among others, to create the appropriate conditions so that the mothers have access to information and training on breastfeeding [17]. The WHO and UNICEF [6] recommended the same year and for the same purpose the "Ten Steps to Successful breastfeeding" (Table 1) implementation to all hospitals.

Although in 1995 the Greek Ministry for Health sent a circular letter to all maternity hospitals in Greece regarding the implementation of the "Ten Steps", there is no Greek maternity hospital today applying all the steps [18]. Furthermore, there are very few data referring to the Greek maternity hospital practices on breastfeeding. Therefore, important bio-ethical questions are raised: Under what hospital conditions and practices are the Greek mothers asked to decide whether they are going to breastfeed or not? To what extent do these practices encourage and support the mothers' intentions to breastfeed? To what extent do they defend the mothers' right to proper information and training?

This study aims to investigate the level of adaptation and implementation of the "Ten Steps to Successful Breastfeeding" in Greek maternity hospitals and how this supports the decision of Greek mothers to breastfeed.

## Methods

In this study, mothers having given birth recently (within the last 6 years) were asked to describe their experiences and decisions about the diet of their youngest child. In order to approach

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the specific population sample, 13 child care centers were randomly visited (7 municipal and 8 private) in three random suburbs of Athens. The heads of the centers were informed about the objectives of the research and the experimental protocol. Out of the 13 child care centers, seven agreed to cooperate (5 municipal and 2 private).

The above process started in November 27, 2006 and ended in January 15, 2007. The seven child care centers that had agreed to cooperate, had at that period of time, 325 children ranging from six months to six years of age. The headmasters distributed 305 questionnaires in total, since some children (20 cases) were absent from the center during that period (e.g., due to illness) and 140 of them were filled in by the mothers. The mode of specific and final sample collection allowed applying the simple random sampling securing thus the degree of representativeness [19].

As already mentioned, the first stage was to inform the headmasters of the child care centers about the way the specific study would be conducted and it was clarified that the anonymity of the centers as well of the participating mothers would be kept. After obtaining each center's approval for the distribution of questionnaires, the mothers were informed by the headmasters as well as by an introductory letter attached to each questionnaire explaining the objectives and methodology, while ensuring anonymity. The questionnaires were initially distributed randomly to a pilot group of mothers in order to evaluate the clarity and conciseness of the questions.

The data were statistically analyzed with the use of the statistical software SPSS (Statistical Package for Social Science) 13.00. The chi square test was applied as an independent test

Table 1. — *Ten steps to successful breastfeeding.*

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within half an hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practise rooming-in - that is, allow mothers and infants to remain together - 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

(whether two random categorical variables were statistically independent or not) using the following principles: (a) the existence of a random sample, (b) independence of observations, (c) nominal data, (d) size of the sample between  $n = 15$  and  $n = 250$  and (e) the fulfillment ensuring that 29% of the related table's cells had a maximum of expected frequency below 5 [20]. The statistical criterion T-test for two independent samples (in cases of continuous variables) was also applied with the following

Table 2. — *Data for the neonates' diet during the first hours of their lives in the maternity hospitals.*

*How much time elapsed between the time you gave birth and the neonate was brought to you for the first time in your room?\**

	After half an hour	After 1-2 hours	After 3-6 hours	After 6 to 24 hours	After 24 to 48 hour	The baby was not taken away from the mother
Public	4.2%	37.5%	25%	25%	8.3%	0%
Private	10.9%	25%	52.2%	11.9%	0%	0%
Total	9.5%	27.6%	46.5%	14.7%	1.7%	0%

Giving birth in a public/private hospital:  $p < 0.05$

*When was the first time that you breastfed after birth?\**

	The first half hour after birth	The second half hour	The first 1-6 hours	Over 6 hours	The 2 <sup>nd</sup> 24 hours	The 3 <sup>rd</sup> 24 hours	The next days
Public	0%	12.6%	33.3%	20.8%	33.3%	0%	0%
Private	1.1%	2.2%	41.3%	27.2%	22.8%	1.1%	4.3%
Total	0.9%	4.3%	39.6%	25.9%	25%	0.9%	3.4%

Giving birth in a public/private hospital:  $p = 0.260$

*What was the first meal of the neonate at the hospital?\**

	Sugar water	Artificial milk	Breast milk	Breast milk and artificial milk	I don't know
Public	20%	16%	28%	12%	24%
Private	22%	5.5%	22%	5.5%	45%
Total	21.5%	7.8%	23.3%	6.9%	40.5%

Giving birth in a public/private hospital:  $p = 0.166$

*According to the instructions given to you by the health professionals involved in breastfeeding, which of the following should you do?\**

	Breastfeeding according to a specific timetable	The neonate breastfed whenever he/she wished	Breastfeeding for a specific period	The neonate breastfed for as much as he/she wished
YES	53.4%	28.2%	48.9%	19.1%
NO	46.6%	71.8%	51.1%	80.9%
Giving birth in a public/private hospital:	$p = 0.609$	$p < 0.05$	$p < 0.05$	$p < 0.05$

\*(The sample of the mothers whose babies were taken to a Neonate Intensive Care Unit was taken out).

Table 3. — *Breastfeeding practices applied in maternity hospitals.**Which of the following practices was applied in the maternity hospital where you gave birth?*

	Artificial milk was provided every time it was asked	Artificial milk was provided in every meal	The artificial milk was given on the doctor's order
Public	38.5%	38.5%	23%
Private	11.6%	76.8%	11.6%
Total	17.9%	68.3%	13.8%

 $p < 0.05$ *Did you suspect that the personnel was giving artificial milk to your baby, without your knowledge and after you had taken the decision to breastfeed?*

	I do not believe that something like that was done	I was afraid that this was happening	I did not pay attention
Public	76.9%	19.3%	3.8%
Private	15.5%	77.4%	3.8%
Total	29.1%	63.6%	7.3%

 $p < 0.05$ *Were you allowed by the maternity hospital to give a pacifier to your baby, if you wanted?*

	Yes, I was allowed	It was not allowed	I do not know
Public	20.7%	6.9%	72.4%
Private	8.8%	5.9%	85.3%
Total	11.3%	6%	82.7%

 $p = 0.195$ *At your leaving the maternity hospital, were you given by the doctors a prescription for artificial milk?*

	Public Maternity Hospital	Private Maternity Hospital	Total sample
YES	45%	57.7%	54.8%
NO	42.3%	45.2%	45.2%

 $p = 0.218$ *Upon leaving the maternity hospital, were you informed about a support breastfeeding group that could help you?*

	Public Maternity Hospital	Private Maternity Hospital	Total sample
YES	13.8%	6.7%	8.8%
NO	86.2%	93.3%	91.2%

 $p = 0.216$ 

principles: (a) data of numerical or analogical type, (b) randomly chosen population sample, and (c) samples from normally distributed population [20]. The central limit theorem could not be applied since the population sample comprised mainly nominal variables and was not very large; in some cases, therefore, the non parametric Mann-Witney criterion for differences between two independent samples and Kruskal-Wallis criterion were applied.

## Results

The majority of the mothers (46.5%) stated that their baby was brought to them three to six hours after delivery. Furthermore, 39.6% of the mothers breastfed for the first time in the first one to six hours, while 40.5% stated that they did not really know what the first meal of their baby was. The mothers also stated that according to the information provided by health professionals, they had to breastfeed based on a schedule and for a specific period of time. A statistically significant difference is observed depending on the hospital where the mothers had delivered their babies ( $p < 0.0005$ ) (Table 2).

Furthermore, 68.3% of the mothers stated that they were brought artificial milk in every meal, whereas

63.6% of them believed that artificial milk was given to their baby without their knowledge and despite the fact that they had already decided to breastfeed. When leaving the hospital, over half of the mothers (54.8%) were given a prescription for artificial milk by a health professional, while 91.2% mentioned that they were not informed about the existence of support breastfeeding groups (Table 3).

Ninety percent of the mothers giving birth in public maternity hospitals and 60% of the mothers giving birth in private clinics mentioned that health professionals supported breastfeeding ( $p < 0.05$ ). Although 56.5% of the total of the mothers considered that the instructions given by doctors-midwives about breastfeeding were clear and comprehensive, 29% believed that they were given in a rush, lacking the feeling of serious planning. Furthermore, the mothers (83.5%) did not know that it is forbidden to give artificial milk to a breastfeeding neonate without a doctor's prescription (Table 4). During their stay at the hospital, 43.8% stated that they were poorly informed about breastfeeding by health professionals, while 56.1% of the mothers felt at the beginning of breastfeeding that they were little to not trained at all (Table 5).

Table 4. — *The attitude of the maternity hospital health professionals as regards breastfeeding.*

*Did you feel that the medical-nursing staff of the maternity hospital:*

	had a neutral attitude	supported breastfeeding	supported an artificial mixed diet	supported artificial milk
Public	6.9%	89.6%	3.5%	0%
Private	18.1%	60%	20.9%	1%
Total	15.4%	66.9%	16.9%	0.7%

$p < 0.05$

*How did you find the instructions of the doctors-midwives about breastfeeding:*

	vague and not very concise	very clear	provided quickly and without any planning	every professional supported something different
Public	3.6%	60.7%	28.6%	7.1%
Private	4.9%	54.5%	29.7%	10.90%
Total	4.6%	56.5%	29%	9.9%

$p = 0.906$

*Did you know that it is not allowed by the maternity hospital to give artificial milk to your baby as a diet supplement while breastfeeding without a doctor's order?*

	Public	Private	Total sample
Yes	25%	14.6%	16.5%
No	75%	85.4%	83.5%

$p = 0.190$

Table 5. — *Mother's breastfeeding training, while staying at the maternity hospital.*

*When you started breastfeeding, how well trained at breastfeeding did you feel?*

	Not at all	Very little	Much	Very much
Public	14.3%	35.7%	35.7%	14.3%
Private	19.6%	38.2%	28.4%	13.8%
Total	18.2%	37.9%	29.5%	14.4%

$p = 0.898$

*When you decided to breastfeed, who guided and trained you in your first breastfeeding?*

	Mother/mother-in-law	Husband	A member of the hospital staff	Personal midwife	Personal pediatrician	Personal gynecologist	Someone else
Yes	16.7%	2.3%	60.6%	20.5%	2.3%	10.6%	4.5%
No	83.3%	97.7%	39.4%	79.5%	97.7%	89.4%	95.5%

They gave birth in a public/private hospital:

$p = 0.198$

$p = 0.054$

$p = 0.433$

$p = 0.139$

$p = 0.359$

$p = 0.992$

$p = 0.766$

*Who trained and guided you in the next cases of breastfeeding at the maternity hospital?*

	Mother/mother-in-law	Husband	A member of the hospital staff	Personal midwife	Personal pediatrician	Personal gynecologist	Someone else
Yes	15.1%	4.8%	61.9%	18.3%	0.8%	5.6%	10.3%
No	84.9%	95.2%	38.1%	81.7%	99.2%	94.4%	89.7%

They gave birth in a public/private hospital:

$p = 0.084$

$p = 0.086$

$p = 0.255$

$p = 0.996$

$p = 0.057$

$p = 0.654$

$p = 0.406$

## Discussion

According to the Declaration of the Rights of the Child, the member states of the UN [16] recognize the right of children to enjoy the best possible level of health. Furthermore, according to the main message of the World Breastfeeding Week, in 2000 [21], breastfeeding is the most important human right of a woman and a child protecting their health. The international scientific commu-

nity, therefore, in order to defend their right to proper diet and health announced the Innocenti Declaration [5], which, inter alia, is based on the application of the "Ten Steps to Successful Breastfeeding" in all maternity hospitals. No hospital in Greece officially applies all ten steps [18]. Under these circumstances, the aim of this research was to investigate the practices existing in Greek maternity hospitals regarding the information and support of mothers to breastfeeding and examine whether the

current conditions favor the mothers' autonomous and free decision-making process.

As shown by the analysis of the results, in all cases the mothers were separated from their babies immediately after delivery, while in approximately half of the cases, the baby was taken to the mother three to six hours after birth. Thus, an important instruction of the "Ten Steps" concerning rooming-in was implemented in only 15.3% of the cases, while in only 1.1% of the mothers delivering in private maternity hospitals. The majority of the mothers did not know what the first meal of their baby consisted of and, obviously, that it was not breastmilk. A similar percentage of mothers stated that they breastfed within the first six hours after birth, a percentage also shown in the study by Antoniou *et al.* [12]. The delayed initiation of breastfeeding is also shown in other Greek studies, where the percentage of women that breastfed within the first hour after birth varied from 8.5% to 3% [8, 11].

Although the WHO in the "Ten Steps" recommends free and unlimited breastfeeding, approximately half of the mothers stated that following the instructions of health professionals of the hospital, they should breastfeed according to a specific timetable and for a specific period of time. To that matter (free and unlimited breastfeeding) the mothers that delivered in public maternity hospitals were better informed than the ones in private clinics ( $p < 0.05$  and  $p < 0.005$ , respectively). As mentioned in other reports, quite often the training of the health professionals is not adequate, and consequently mothers are poorly supported [22, 18].

During their stay in the maternity hospital, a high percentage of mothers (68.3%) stated that artificial milk was brought to them at every meal, although a similar percentage (63.6%) were afraid that the maternity hospital personnel was giving artificial milk to the babies without their knowledge and despite their decision to breastfeed – practices that were more frequent in private maternity hospitals ( $p < 0.001$  and  $p < 0.0005$ , respectively). Although the free and exclusive breastfeeding during the stay in the maternity hospitals is an important factor for positive prognosis regarding the duration of breastfeeding [13] and is considered to be the most important policy of the "Ten Steps", it seemed that in Greece this is not even taken into consideration. Other reports studying these practices in Greek hospitals show that 89% of the neonates are fed with artificial milk once or twice during the first days of their lives [11], while only 19.1% are exclusively breastfed in the maternity hospitals [8].

The mothers having given birth in public hospitals, mentioned at a more frequent rate (89.6%) than the ones having given birth in private hospitals (60%), that the health professionals support breastfeeding in their daily practice. The mothers having given birth in private maternity hospitals stated that health professionals supported a mixed diet or had a neutral attitude towards breastfeeding ( $p < 0.05$ ). Although approximately half of the mothers found the instructions of the health professionals about breastfeeding extremely clear, 29% of them said that the

instructions were given in a hurry, lacking serious planning, while 37.9% of the women found themselves poorly trained for breastfeeding. According to Theofilogiannakou *et al.*'s study [11], only 34% of Greek mothers get informed about the advantages of breastfeeding by their doctors.

Although Greece has ratified the Agreement for the Rights of the Child, has recognized the need for information and support of the mothers in issues of health and diet, and has also adopted the "Ten Steps" [23] of the "Innocenti Declaration", the present study showed that none of the recommended by the world organizations "Ten Steps" was fully applied.

It seemed, therefore, that breastfeeding practices applied in Greek maternity hospitals do not create the appropriate environment to provide sufficient information and support to the mothers. Consequently, these practices do not favor the mothers' free decision making process. Further investigation will provide the necessary information to the National Health System enabling control and promotion of breastfeeding in Greece.

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