LETTERA DELL'ISTITUTO DANONE

I T E M S

NEWS

BREASTFEEDING IN ITALY

WHAT IS THE REALITY OF NUMBERS? RESULTS FROM PUER PROJECT: NATIONAL SURVEYS

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Human milk is more than food: it's a real biological system

Human milk with its unique richness of elements (either nutritional or functional) constitutes a real "biological system" that, considering actual knowledge, is associated not merely with the best parameters of development, but also with a better neurobehavioural development and prevention of different acute and chronic diseases [1-10].

For this reason, WHO (World Health Organisation) defines "exclusive breastfeeding" as ideal food for the first six months of life, although during the first year it's suggested to appropriately continue breastfeeding integrated with foods slowly introduced within the weaning period [13-17].

Rates of breastfeeding initiation and duration are in higher in the Scandinavian countries than in other industrialized countries [13-17].

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Puer 1 and Puer 2 Project: Quinquennial Monitoring in Italy of beastfeeding situation and all the associated factors

In Italy, the Puer Project was promoted in 1995 with aims to photograph national reality regarding breastfeeding, and to evaluate the favourably associated factors that aid the accomplishment of a convenient promotional strategy. The adhesion at 10 WHO (World Health Organisation) points for promoting breastfeeding has been observed (Table 1) [18,19]. This program has been realized by the Department of Paediatrics of the University of Milan (Italy), San Paolo Hospital with Prof. M. Giovannini as the co-ordinator and with the support of the Danone Institute-Italy, whose goal is research and the divulgence of culture in the nutritional field.

The Puer Project 1 has been the first national survey about breastfeeding: indeed, data obtained is representative of all Italian regions unlike previous research performed, characterized by small interviewed samples and limited to few areas.

In 2000, Puer 2 Project has monitored the breastfeeding situation in Italy during a 5-year period from the previous survey. In addition, it aimed to verify the implementation in the rates of breastfeeding initiation and duration after the former promotion.

The adhesions to the WHO 10 steps and the possible variations in comparison to the 1995 have finally been evaluated.

Population Evaluated

These studies have enrolled two cohorts of couples infant-mother of 2191 and 3249 randomised within healthy Italian newborns respectively in November 1995 and 1999.

Interviewed women were proportionally distributed according to regional birth-rates to give an homogeneous representation of the geographical distribution of the yearly live births in Italy.

The surveys were conducted by telephone interviews on the first day of the first, third, sixth, ninth and twelve months of life of the newborns. The interviews were conducted by well-trained staff who used a standardized sequence of questions.

Participation's rate has been 73% (n=1601) in 1995 and 75% (n=2450) in 1999.

Type of feeding was classified according to WHO's classification (WHO 1996; 1198) [Table 2].

Table 1- The WHO 10 steps for breastfeeding

1.	Have a written breast-feeding policy that is routinely communicated to all health care staff
2.	Train all health care staff with the skills necessary to implement this policy
3.	Inform all pregnant women about the benefits and management of breastfeeding.
4.	Help mothers initiate breastfeeding within an hour of birth.
5.	Show mothers how to breastfeed and how to maintain lactation even if they're separated from their infants.
6.	Give newborn infants no food or drink other than breast milk, unless medically indicated.
7.	Practice rooming-in 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.

Increasing breastfeeding from 1995 to 2000

Results from the survey have shown an increase in breastfeeding's prevalence in this quinquennium: the initiation rate passed from 85% in 1995 to 91% in 1999.

An increase in breastfeeding duration has been even reported; at 3 months it passed from 42% to 66%, at 6 months from 20% to 47%, at 12 months from 4 to 12% [Table 3]. Exclusive breastfeeding rate at discharge has been increased passing from 70% to 77% in 2000.

Reduction in Geograhical difference

Data regarding maternal breastfeeding differ in the various geographical areas, but in 2000 a reduction in initiation breastfeeding rates has been observed. This trend of uniformity is due to an important increase in particoular regions such as the North East, where there has been low rates. However, the increase in prevalence and duration concerns all the regions. In particular, the average duration of breastfeeding has passed from 3,5 to 5,2 months, with minimal difference among various geographical areas.

Increase to the adhesion to WHO10 steps

In this quinquennium, an increase in all the WHO 10 steps for breastfeeding promotion has been shown [table 6].

While for some steps the percentage of adhesion was higher than 60% (step 3: "Inform all pregnant women about the benefits and management of breastfeeding", 67,9%; step 9: "Give no artificial teats or pacifiers (also called dummies or soothers) to breast-feeding infants", 60,5%), compliance to others steps still be very low, inferior to 20% (step 1: "have a written breastfeeding policy that is routinely communicated to health care staff", 18,4%; step 10: "foster the establishment of breastfeeding support groups so that mothers can refer to them on discharge from the hospital or clinic", 12,2%).

Concomitant adherence to the WHO ten steps is discouraging (2,7%).

Italian breastfeeding rates above the European average

Data show increase in breastfeeding rate in this 5 years, but especially an important increase of breastfeeding duration. Indeed,

Table 2- WHO's definitions concerning Breastfeeding

Breastfeeding category	Child should receive	Permitted	Forbidden
Breast	Maternal Milk	Any Food or liquids, included different types of milk	
Exclusive Breastfeeding	Maternal Milk	Drops, syrups (vitamins, minerals, medicine)	All the rest
Predominant Breastfeeding	Maternal Milk as a predominant source of nutriments	Fluids (water, beverages, fruit juice, re-hydratants solutions), drops, syrups (vitamins, minerals ,medicine)	All the rest (particularly nutriments different from maternal milk)
Complementary feeding	Maternal milk and solid and semi-solid food	Any food or liquids included different type of milk	
Replacement feeding	Any liquid food or semi-liquid from a bottle with artificial teats	Any food or liquids, included different type of milk, included even maternal milk through container	

Table 3 - Comparison in national prevalence of Breastfeeding in Italy in the quinquennium 1995/2000

Months from birth	1995 %	2000 %	VARIATION 2000/1995	P
In the first 48h	85.3	91.1	+5.8	<0.0001
At discharge from hospital	83.4	89	+5.6	<0.0001
1st month	66.5	81.1	+14.6	<0.0001
2nd month	52.0	72.1	+20.1	<0.0001
3rd month	41.8	65.7	+23.9	<0.0001
4th month	31.9	58.6	+26.7	<0.0001
5th month	24.8	53.9	+29.1	<0.0001
6th month	19.4	46.8	+27.4	<0.0001
7th month	15.3	35.7	+20.4	<0.0001
8th month	12.5	31.0	+18.5	<0.0001
9th month	9.9	25.2	+15.3	<0.0001
10th month	6.6	17.6	+11.0	<0.0001
11th month	5.0	12.8	+7.8	<0.0001
12th month	4.0	11.8	+6.8	<0.0001

mothers rates concerning breastfeeding at 6 months after delivery has doubled (from 20% to 47%). Initiation breastfeeding rate, even if lower than Scandinavian countries, could be considered high if compared with other industrialized countries .For example, the US has reported a 59% initiation rate [11].

Recently, Euro-Growth Study has taken into consideration alimentary habits in 12 European countries and has revealed a 74% breastfeeding rate at 1 month[20].

Highest percentage are found in Sweden (97,4%), Greece (99,2%) and Croatia (93,9%). Lowest percentage are in Ireland (30,4%), France (34,1%) and Great Britain (43,3%). Therefore, the Italian current breastfeeding rate is clearly shown to be above the European average.

Table 4- Rates of Breastfeeding beginning in Italy in the different geographical areas in the quinquennium 1995/2000

	1995 %	2000 %	VARIATION 2000/1995	P
North West	82.6	89.0	+6.4	<0.005
North East	90.8	93.4	+2.6	Ns
Centre	83.5	92.2	+8.7	<0.0001
South	84.9	91.0	+6.1	<0.0001
Italy	85.3	91.1	+5.8	<0.0001

Table 5- Times of Breastfeeding in Italy (in breastfed mothers) in the different geographical areas in the quinquennium 1995/2000

	1995 Average time (median)	2000 Average time (median)	VARIATION Average time 2000/1995	P
North West	3.7 (2.4)	5.4 (5.9)	+1.7	<0.0001
North East	3.9 (3.2)	5.4 (6.1)	+1.5	<0.0001
Centre	3.7 (3.0)	5.0 (3.4)	+1.3	<0.0001
South	3.2 (2.2)	4.6 (3.4)	+1.4	<0.0001
Italy	3.5 (2.4)	5.2 (5.8)	+1.7	<0.0001

Strategies to breastfeeding promotion

Results from Puer 2 study have evidenced that the initiatives towards breastfeeding taken in these last years have considerably influenced Italian mothers toward this practice. Regardless, it's necessary to remain highly attentive while continuing to actively promote breastfeeding. In order to further improve this situation, the process must start from mass media's utilization (radio, TV, Internet). Continuing with the spread of adeguate information for mothers during pregnancy courses, recovery in the maternity ward (paediatrician, child-welfare, mid-wife, gyneacologists), and follow-up by paediatrics in the following months. Puer 1 Project has already explored how mothers received information concerning breastfeeding, especially from caregivers. It's clear how information should be precise and non-contradictory; for this reason it's fundamental that among future goals the adherence to the WHO step 1 ("have a written breastfeeding policy that is routinely communicated to health care staff") and to step 2 ("train all health care staff in skills necessary to implement this policy") should be implemented.

To increase breastfeeding duration, support is important during the course of that practice,

Table 6 - Per cent of increasing in Italy of WHO 10 steps for Breastfeeding

WHO Steps	1995 %	2000 %	VARIATION 2000/1995	P
1	Not evaluated	18.4	Not evaluated	ns
2	Not evaluated	Not evaluated	Not evaluated	ns
3	63.9	67.9	+4	<0.01
4	12.4	21.3	+8.9	<0.0001
5	51.4	55.4	+4	<0.05
6	33.0	47.4	+14.4	<0.0001
7	23.7	33.6	+9.9	<0.0001
8	44.3	52.4	+8.1	<0.0001
9	47.7	60.5	+12.8	<0.0001
10	Not evaluated	12.2	Not evaluated	ns

even after hospital discharge (step 10): mothers are then helped to be perseverant in the best choice for their children. Beside the establishment of support groups, a continuing education and a constant promotion of breastfeeding by local paediatricians is then necessary. Even discouraging artificial teats or pacifiers during all breastfeeding period (step 9) could enhance an increase of duration rates in the following months.

It's been showed how synergy to accomplish various WHO steps is favourably correlated to the duration of breastfeeding itself: it's then necessary to implement concomitant adherence to all 10 steps, adherence that in 2000, is still extremely low (2,7%).

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