

Chapter Two

HISTORICAL PERSPECTIVE ON BREAST FEEDING AND NURSING

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The first humanoids, the Neanderthals, the hunter-gatherers and the farming Stone Age people raised their children the way other higher primates did by breast feeding them on demand for several years. During the historic period, i.e. for the last 6000 years, various cultures progressively questioned the need for breast feeding and to various extents modified the mother - infant interaction as it relates to nursing and feeding. In some cultures wet nurses were very popular, even animals were used as wet nurses.

THE HISTORIC OR PRE-INDUSTRIAL PERIOD

The historic or pre-industrial period, in the context of this presentation can be said to begin from about 4000 years BC with the people who populated the ancient Near East: particularly the Mesopotamians, the Egyptians and the Hebrews. In these cultures, agriculture was the main source of both food and employment.

BREAST FEEDING

The attitude towards rearing an infant did not change much during this period. Breast feeding was considered the superior, if not the only way for feeding infants. In some societies, breast feeding was regarded as a gift from God. However, there were some exceptions. During the 16th -19th century, in some areas of central northern Europe, in what is now Germany and Austria, it was common to feed the child artificial food since breast feeding was regarded as unclean. In some other societies, different ways of rearing babies were practiced. In Sweden in 1749, the first Central Bureau of Statistics was established to study demographic changes. The main reason for the act was that the authorities at the time were concerned about the low growth rate in Sweden as a result of the high infant mortality rate. Brändström¹ surveyed the country's parishes, especially in the most northern part of Sweden in "Nedertorneå". It was an area at the border between Finland and Sweden where the population was mainly of Finnish origin. In the early 1800, the infant mortality (during the first year of life) was about 50% but over a period of slightly more than 40 years the rate was halved. According to Brändström,¹ the reason for this sharp decline was that doctors and midwives succeeded in convincing mothers to breast feed their babies. In this region, the traditional way of rearing babies from their first day of life, was to feed them cow's milk using a cow horn as a bottle (Figure 2). The top of the horn was cut away, thereby creating a small opening for the milk to pass. The other end of the horn was closed by some sort of cloth or leather. When the baby grew

older, the horn was hanged above the cradle so that the baby could feed itself. It was observed that the children were constantly sucking this bottle. The local doctors at the time, reported that these horns were never washed



Figure 2 - The babies in "Nedertorneå" were fed from a cow horn hanged above the cradle. Nordiska Museets Bildbyrå. Stockholm, Sweden. Photo: U. Wåger.

and the milk became sour quickly. It can be assumed that the high infant mortality rate was the result of gastrointestinal infections.



Figure 3 - A breast feeding mother with her child in the beautiful surroundings of the village of Emiliano Zapata. Photo: M. Hauge.

According to the mothers, this was the traditional way of rearing babies in the region since they did not have enough time to breast feed their babies because of their intensive outdoor work on their small farms.

Beside such isolated incidences, in most populations in the pre-industrial period, the baby was breastfed, either by the mother or by a wet nurse. Two to three years was the normal time (Figure 3). Hanna breastfed her son Samuel for three years (1 Sam. 1.23), while Isaac, son of Abraham, was weaned at the age of two (Gen. 21.8). In Romeo and Juliet for instance, the nurse tells about the dramatic day of Juliet's weaning at three years of age.²

As in the prehistoric period the infant was still fed on demand, i.e. when it wanted to suckle, it was allowed to do so. Such behavior was still practiced in the middle ages. This is illustrated by the Venetian wet nurses advertising song from the 14th-15th century:

*"We're fine in our way of life,
Prompt and skillful in our trade,
Always when the baby cries,
We feel our milk returning..."*³

In a recent study, Hauge⁴ observed the sucking and feeding habits among Indians in a small village in the district of Ocosingo. These Indians live in a remote area of the jungle mountains of the Chiapas. Their feeding, eating and rearing habits seem to have changed little during the last several centuries. The newborns carry amulets to protect them from "the evil eye" (Figure 4a and b). The children observed were breastfed on demand until two years of age or older (Figure 3). The parents reported that many children have had a digit/knuckle sucking habit as babies. This was probably not a manifest artificial sucking habit, but rather an occasional behavior seen in most babies. Hauge did not observe any child exhibiting a manifest artificial sucking habit during her three weeks stay in the village at two different periods, one year apart.

BREAST FEEDING AND CULTURAL INFLUENCES

It was a widespread opinion that menstruation spoiled the milk. The reason behind this was the thought that the blood, which was normally lost during menstruation, moved to the breast during pregnancy and lactation, and became converted into the milk that fed the child.³ Medical illustrations from medieval time show "*vasa menstrualis*", which was believed to be a vessel that carried the menses from the uterus to the breast. Therefore, it was believed that menstruation:

*"never happens to good nurses, (in whom) all the blood, which is retained, is dedicated to the nourishment of the child."*³

In many societies, sexual intercourse was forbidden during lactation for fear that the mother's milk would be spoiled or that the mother would restart the menstruation. For a long time it has been well recognized that lactation prevented conception. The wife of the prophet Hosea weaned her daughter in order to become pregnant and give birth to a son (*Hosea* 1.8). As stated earlier, breast feeding must be quite intensive to prevent menstruation from occurring. Together with the other reasons for nursing, it is obvious that as a rule babies were breastfed intensively during this period.

In the early part of the western civilization, colostrum was often regarded as unhealthy. This was mostly because of its appearance. Another tenacious idea was that the newborn should first be given laxatives to expel the meconium from the body. Meconium is the black content in the neonate's intestines.

Religious beliefs were also influential. The Old Testament says:

"Cream and honey will he eat." (Isaiah 7. 15)

Honey was mostly used to feed the infant, often combined with goat milk, almond oil, sugar, and occasionally some wine.

Two leading Greek doctors, Soranos and Galenos, made an important contribution to our knowledge when they described how society in the 2nd century looked upon the rearing of small children. Soranos wrote a textbook in gynecology, which included a few chapters about the feeding of small children. Galenos became emperor Markus Aurelius' first doctor in the year 164. Their opinions on the subject were that the child's first meals should contain honey or

honey in goat milk. After a few days, according to Soranos, you could give the child breast milk from another woman first, then after 20 days the baby could start suckling from its mother.⁵ Soranos also wrote:

*"...milk will coagulate properly, if we put a drop on the finger nail or on a laurel leaf it slowly spreads and when shaken, retains the drop-form.... if it flows at once in all directions, it is watery, but if it coheres like honey.....it is too thick."*⁵

Metlinger in the 15th century in what is considered the first European pediatric textbook wrote:

*"The first 14 days it is better that another woman suckle the child as the milk of the mother of the child is not as healthy, and during this time the mother should have her breast sucked by a young wolf or the milk should be sucked off. One should take care to get another wet-nurse than the mother...."*⁶

It is amazing that some of Galenos' and Soranos' opinions were still believed until the beginning of the 19th century. We can observe similar behaviors in developing countries today, where the child's first meal is surrounded by certain ceremonies. For example, the Zinacantecos of the Highland in Chiapas have to wear a long, heavy skirt during their first year of life. Infants' faces were covered except during feedings, especially during the first three months, to ward off illness and the effect of the "*evil eye*."⁷ Customs have an important influence when it comes to mothers rearing their children. This influence is often negative, especially the attempts made to introduce a substitute for mother's milk. In the Indo-Pak subcontinent, for instance, the infants traditionally receive their first meal from the hands of the family's oldest man. In some higher clans, it is fashionable to use a nursing bottle for this first ritual meal. It is easy to understand how the resulting delay of the first meal under these circumstances can create a problem for future breast feeding.⁸ It is also common in some areas that the supplementary milk will be mixed with unclean water from ditches. This water has the same viscosity as milk, and therefore mixes well. This practice adds to the already serious health problems associated with rearing children in these areas.

In China, the opinion was more straight forward as was described in a 12th century Chinese text about the "*Initiation of breast feeding*". The advice given to a mother who had just delivered was:

"A child is born and one feeds milk to it one's self, all of this is not discussed."

The Chinese writer believed that if the mother is breast feeding, what she does "*naturally*" does not require further elaboration.⁹

ALTERNATIVE METHODS OF FEEDING

In the pre-industrial period it was believed that if the child cannot get sufficient nourishment through breast feeding, four alternatives remained: to get a wet nurse, to pump out breast milk, to be nursed by an animal, or to be brought up on substitute milk.

a. Wet nurses and their role in infant feeding

The use of wet nurses was practiced by the first recorded civilizations, such as in Mesopotamia, Egypt, Israel, and many others. The king of Babylon, Hammurabi (1728-1686 BC), wrote a law formalizing the relationship between the wet nurse and the employer.¹⁰ The contract held mostly for 2-3 years. If the employer did not complete his economic responsibility, the wet nurse had the right to sell the child. In Greece, wet nursing was delegated to certain slaves. Among the upper class in France, it became popular in the 12th century to use wet nurses. Sometimes, they stayed with the parents of the child, but it was more common to use a young woman who lived in the countryside. She took the baby to her place and had it there for about two years. It is easy to understand the conflicts that arose when the child was taken away from the wet nurse by the biological parents, who the baby had pretty much not seen.⁵



and middle-class mothers to employ wet nurses rather than feed their own children. Although this custom was greatly criticized by Protestant theologians after the Reformation, the criticism had little effect in practice, except upon puritan women for whom breast feeding was regarded as a religious duty. In general, reasons for women not to breast feed included concern for their health, figure and dress; the tradition of the husbands deciding on the feeding method; customs within the society and the busy social life of the mother. In some cases these reasons were probably real, due to physical restraints such as the effects of tight corseting, the prevalence of breast and nipple injury and disease.

Flandrin¹¹ suggests that the use of wet nurses could have a sexual background. It was a common opinion that having intercourse during breast feeding was unclean and may be dangerous. As stated above, many societies believed that having intercourse would spoil the breast milk and could endanger the future health of the child.



Figure 4a and b - A newborn Chiapas Indian with amulets around his wrist. The shell of a beetle in one of the bracelets is supposed to protect against "the evil eye", however it is sometimes also used to be sucked on. Enlargement of the shell of the beetle (right). Photo: M. Hauge.

In Great Britain, something similar to a baby boom occurred during the 16th and 17th centuries. It became common that wealthy mothers had more than a dozen children, even up to as many as twenty. Cases of 30 children have also been reported. The explanation was that these mothers did not breast feed, which made it easier for them to become pregnant shortly after they had given birth. The aristocracy had been quick to exploit the fact that the contraceptive effect of breast feeding could be circumvented by the use of wet nurses or the use of artificial feeding, thus making it possible for their wives to produce one child a year, even though many of the infants failed to survive. Having a large family was an advantage to royalty and the nobility, since by arranging appropriate marriages of sons and daughters the family could acquire wealth, power and influence. Queen Victoria and her nine children provide an excellent example; the Prince of Wales was conceived within two or three months after the birth of her first child, which she did not breast feed.⁵

Until the late 18th century it was a social norm for upper-

There is even some evidence that suggests that wet nursing was a practice that was exported to the slave colonies of the Caribbean. Since slaves were worth money, the more babies a slave could produce, the better. It seemed to be the practice to employ elderly wet nurses on the slave farms to rear several children at a time, so that the mother could become pregnant again as soon as possible. It seems significant that in the independent Caribbean nations today, the lowest prevalence of breast feeding is in Jamaica, the island that stayed the longest under colonial yoke.⁵

It was also believed that the wet nurse's milk carried all her physical and mental qualities, her emotions, her food and drink, and her diseases. The wet nurse was therefore seen as the cause of most infantile diseases and any treatment was given to her rather than to the child, since it was thought that it would pass to the child through the milk. The child was also believed to contract diseases by direct contact with the nurse. Therefore the requirements of the women who could become wet nurses for the upper-class families were important. Nils Rosén von Rosenstein wrote:

*"A wet nurse should be between 20 and 30 years old, she should have had a baby about a month earlier. It is preferable that she is more fat than skinny, she should have big nipples and lots of milk. She should be calm, peaceful, sweet, happy, virtuous, have good health and no diseases. She should not be sexually active because the child will suffer from it. The milk gets rotten and salty."*¹²

b. Pumped out milk

From archeological findings it is evident that pumped out breast milk has been used 2000 to 3000 years ago.^{3,5} However, more systematic use of pumped out milk became popular mostly over the last fifty years.

c. Infants fed by animals

Historically, there are several accounts regarding infants that have been nursed by animals when the mother's milk was not available. Goat milk has been the most popular, but also sheep, cow, donkey and even camel milk have been used. In many cultures, people have been frightened of using such milk for nursing. They thought that the milk could transfer the animal's mind and some of its behavior to the child. The myth about the Roman twins Romulus and Remus, the mythological founders of Rome, perhaps had some influence.⁵

In France during the 18th century, there was an increase in the incidence of using goats as wet nurses. This was correlated to the spread of "*The French Disease*", syphilis. In orphanages in Paris, both donkeys and goats were used.⁵

d. Substitute/supplemental feeding

Substitute feeding of babies has been practiced for a very long time, even though it was not common. Remnants of nursing bottles have been found in children tombs from several thousand years. A monk, von Louffenburg, wrote a poem in 1429 on the care of the body, which includes some instructions about the care of young children. The poem is interesting because Louffenburg was the first to depict a feeding bottle with a design that is still used today.¹³

OTHER ARTIFICIAL FEEDING AND SUCKING METHODS

According to Levin,¹⁴ the first mentioning of pacifiers or dummies as he prefers to call them, in the medical literature, was circa 1500 in Germany. In fact, almost everything written about dummies before 1900 is in German. Actually, in medieval times, parts of Germany and Austria regarded breast feeding as dirty and unhealthy.

But the dummies certainly have a far more venerable lineage, and we can guess, with some certainty, that sweetened dummies were used thousand of years ago to calm the temper of fastidious infants. Ancient records concerning milk and honey refer more to pacification and comforting of babies rather than feeding. Excavations of ancient infant burials have according to Levin, uncovered "*clay dummies*"; small clay animals - horses, frogs - in Italy and Cyprus. These 2000 to 3000 year old specimens possessed handles and were evidently meant to be hung around the neck. A single large opening permitted the insertion of some viscous material - perhaps honey - while small orifices at the animal's mouth

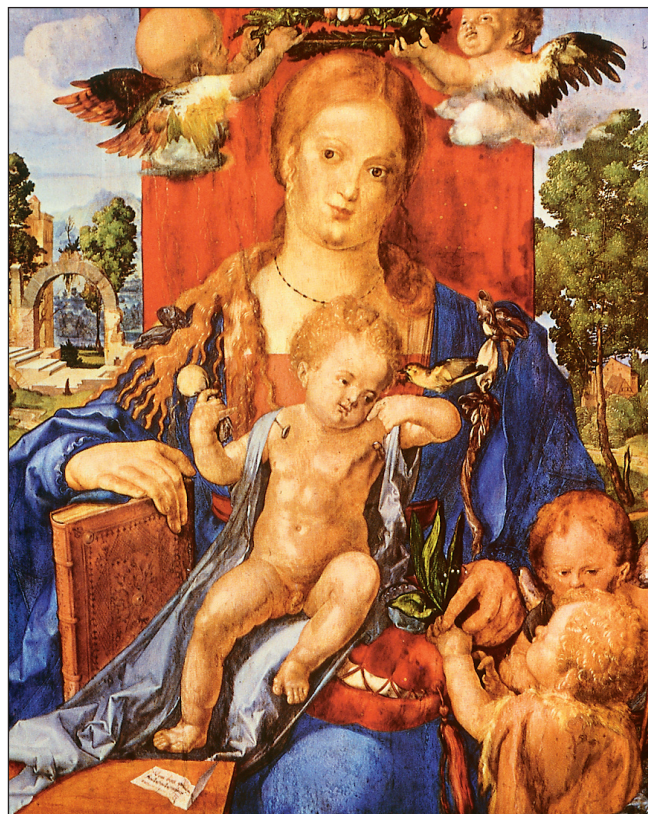


Figure 5 - *Madonna with a siskin*. Dürer A. 1506. Staatliche Museen, Berlin. Germany. The boy has a sucking bag in his right hand.

permitted the infant to suck the honey. Such liquid containers used for feeding were made in Europe until the Middle Ages.¹⁴

During the late part of the pre-industrial period, on demand breast feeding became less popular, while artificial sucking habits became more frequent. To calm a worried child, to reduce pain or hunger or to get it to sleep, the child was often given a wad, wetted with a solution often containing alcohol products or opiates.^{15,16}

Sucking bags were the forerunners of the modern pacifiers. They consisted of a piece of gauze or thin cloth soaked in a mixture of sweet gruel, or a solution of sugar or honey in water, squeezed free of excess fluid and given to the child to suck.^{14,17,18} Small round containers with lids, made from pewter or china, which can be found in some museums, were used for soaking the comforter or for storage when a child did not want it. The sucking bag was depicted both in sculptures, and in pictures of the Virgin and Child, from at least the 15th century^{3,14} (Figure 5).

Levin talks about strips of rug that were usually knotted to enclose various foods within the bag. These rug bags contained pieces of bread, grain, meat or fish. Such rugs were known to have been used throughout Europe and in Russia. Among the Finns and Lapps the rug bags contained pieces of fat which could be more suitable considering the cold weather in these areas. The various foods were moistened in the infant's mouth or by using milk with honey, brandy, etc. It is of interest to note that the use of rugs was criticized by the local doctors in the Brändström study from northern Sweden¹ mentioned earlier.

CONCLUSIONS

During the historic period breast feeding was the natural and most accepted and common method of nursing the baby. However, other methods of feeding were introduced, such as wet nursing, animal nursing and even nursing

bottles. The feeding process became surrounded by an increasing amount of cultural restrictions, regulations and recommendations. Artificial sucking methods such as sucking bags and rugs were also introduced during this period.



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