Breastfeeding in Italy: the role of Obstetrician-Gynecologists

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ABSTRACT

We report the exceptional case of an intrauterine fetal death Data for 2013 from the italian national institute of statistics (istat) show that the percentage of breastfeeding mothers in italy is increasing, however these percentages are still far from the standard recommended by the world health organization (who). Not breastfeeding is rarely recognized as a possible effect of the medicalization of birth but rather is perceived as a mother's choice, even though, according to a survey done by the italian national institute of health in 2002, over 95% of women in italy said they wanted to breastfeed. The authors evaluate the role of the obstetrician-gynecologist who, together with the other health professionals involved in pregnancy and childbirth, all of whom have been trained and respect the mother-baby dyad, can help promote breastfeeding in a significant way.

Keywords: breastfeeding, birthing practices, obstetricians' role, baby friendly hospital initiative

SOMMARIO

In italia, sebbene la percentuale di madri che allattano stia aumentando secondo i dati istat riferiti al 2013, ancora tali percentuali sono lontane dallo standard richiesto dall'oms. Il mancato allattamento raramente è riconosciuto come un possibile effetto della medicalizzazione della nascita ma piuttosto come una decisione materna sebbene nel 2002 il 95% delle donne ha dichiarato di voler allattare secondo una indagine effettuata dall'iss. Gli autori valutano il ruolo del ginecologo che, in team con gli altri operatori sanitari del percorso nascita uniformemente formati e rispettosi della diade madre-bambino, può realmente contribuire a promuovere l'allattamento materno.

INTRODUCTION

The World Health Organization (WHO), UNICEF and the International Societies of Pediatrics and of Gynecology have all declared that breastfeeding is crucial to maternal and child health, and consider it a primary health prevention intervention. In 2002, WHO and UNICEF developed a Global Strategy for infant and young child feeding[(1)] which reaffirmed the importance of exclusive breastfeeding in the first 6 months of life and of continuing breastfeeding and complementary foods for 2 years, or as long as desired by mother and child. In Italy, these recommendations were published as part of a legislative agreement between the Ministry of Health and the regional governments in 2007 and, since then, the Ministry has organized awareness campaigns to promote breastfeeding, both for healthcare providers and mothers. The goals of promoting breastfeeding, and the Baby Friendly Initiatives in particular, have been incorporated into various national and regional Health Plans as well as Prevention Plans, however meeting these goals necessitates a shift in the paradigm of care given throughout pregnancy, childbirth, and the first few years of a baby's life.

One of the strategies proven to be effective in protecting, promoting and sustaining breastfeeding is the WHO/UNICEF "Baby Friendly Hospital Initiative" (BFHI), which was launched in the early '90s, and quickly spread throughout the world[(2)]. In 2007 in Italy, the "Baby Friendly Community Initiative" (BFCI) was added and included local health centers and other available resources in the community[(3-5)]. Currently, there are 22 Baby Friendly Hospitals (4.5% of births) and 6 Baby Friendly Communities in Italy. The BFHI outlines the 10 steps to follow in maternity wards so that a mother can breastfeed her baby, while the BFCI has 7 steps that were adapted from the BFHI for a local health clinic setting. Although each of these steps is important and depends on the others, some play a more central and strategic role in the success of the project. The training of healthcare personnel who work with pregnant women and mothers has an extremely important role. Part of the BFHI/BFCI process involves enhancing a multidisciplinary approach and responsibility for questions about infant feeding choices. Research has shown that these changes are not immediate and require much advance planning and buy-in from all those involved in the pregnancy and birth process[(6)].

The first few days after birth are a particularly sensitive period of time, and health workers' skills, knowledge and attitudes towards breastfeeding,

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as well as their ability to transfer these skills to new mothers, can significantly influence a mother's breastfeeding experience. When seen from this perspective, the support provided by health professionals plays a decisive role, provided, however, that all the professionals involved have been trained according to international standards, and are monitored periodically by evaluating the results.

According to the latest report from the National Institute of Statistics (ISTAT) with data from 2013, the percentage of mothers starting to breastfeed at least once has increased compared to 2005 (85.5% vs. 81.1%). The average duration of "any breastfeeding" has also continued to grow: from 6.2 months in 2000 to 7.3 months in 2005 to 8.3 in 2013. The average number of months of exclusive breastfeeding is 4.1, with the highest average duration (4.3 months) in the province of Trent and the lowest in Sicily (3.5 months)[7] . These rates fall far below the targets of the Global Strategy of 50% of exclusive breastfeeding at six months. Not breastfeeding is rarely recognized as a possible "side effect" of the medicalization of the birth experience, but rather is perceived as a mother's choice, even though a study by the Italian National Institute of Health in 2002 revealed that over 95% of Italian women wanted to breastfeed[8].

The first few days of breastfeeding offer a special window of opportunity, and there are many obstacles and barriers that a mother encounters, even during a brief hospital stay. Research[9, 10] has shown that one of the first difficulties is the lack of specific training for healthcare providers, and especially gynecologists on breastfeeding management and, consequently, the lack of information and support given by them to mothers. Healthcare workers, in their different roles, should inform and support women during pregnancy, childbirth, and after discharge because there are significant differences in health outcomes for breastfeeding women and babies[2, 11, 12]. Specifically, mothers should be informed about the importance of breastfeeding, the risks of artificial feeding and the normal management of breastfeeding, including practical help for getting the baby to the breast. In almost half of the Italian maternity wards (46%) mothers and newborns are routinely separated from birth[13], when the importance of rooming-in during the hospital stay is well documented[14-16].

ROLE OF THE OBSTETRICIAN-GYNECOLOGIST IN THE PROMOTION AND SUPPORT OF BREASTFEEDING IN ITALY.

In Italy, the obstetrician-gynecologist (ObGyn) is the first healthcare professional that a pregnant woman seeks out and the person she sees most frequently during the 9 months of pregnancy: over three quarters of women in Italy go to a private ObGyn during pregnancy.

In the US, the National Center for Health Statistics had estimated that there 25 million gynecological-obstetric visits in 2006: 20 million consist of routine prenatal testing, 2,379.024 of postpartum examinations and 1.7 million medical tests[17]. In Italy, there is no precise figure as to the average number of ObGyn visits that women have during pregnancy and postpartum, but, over 84% of pregnant women see an ObGyn more than 4 times when pregnant, In 2013, 94.3% of women underwent the first visit by the third month of pregnancy, and 37.6% had at least 7 ultrasounds during pregnancy (as compared to 23.8% in 2000 and 28.9% in 2005)[18]. Each of these visits therefore, becomes an opportunity for ObGyns to inform their patients about the importance of breastfeeding, to positively influence women and to strengthen this choice after childbirth. Research has shown that women are interested in discussing breastfeeding during pregnancy: they want both theoretical and practical information[19], although they often do not receive it[20, 21]. An evidence-based protocol for promoting breastfeeding prenatally underlines the importance of proactively addressing and discussing issues related to preparing for breastfeeding and knowing what to expect and what to do if problems arise[22].

ObGyns may have the impression that this kind of information is not within their scope of practice: it perceived as something for the midwife and pediatrician who assist at birth and prepare parents for the return home. The only positive note is that this perception means they are not targeted by formula company sales representatives and, therefore, do not risk violating the International Code on the marketing of breast milk substitutes[23].

A possible obstacle to the promotion of breastfeeding by ObGyns could be their lack of training in medical school and residency about the physiology of lactation and management, diagnosis and treatment of the most frequent problems which may occur during lactation, from blocked ducts to mastitis. Nakar et al.[9] found that while many physicians had positive opinions about breastfeeding, most of them lacked the necessary information and skills to effectively inform and support a mother.

While pregnancy and childbirth have become more and more medicalized, in Italy as in other Western countries, there has not been a similar increase in actions on the part of health workers to provide information, counseling and support on issues

that concern pregnancy and childbirth, especially breastfeeding. A woman's ObGyn has an impact on the level of medicalization. A midwife is capable of handling a normal pregnancy, labor and delivery, while leaving conditions that are risky or pathological to the obstetrician. The midwife, who is protective of the mother and child in their individuality as well as in their unity, is the professional most capable of respecting the physiology and empowering women during pregnancy, labor and delivery, and in the postpartum period. The May 9, 1985, during the Congress "Appropriate Technology for Birth", held in Forteleza, WHO produced 15 recommendations that are based on the principle that every woman has the fundamental right to receive proper prenatal care, to play a central role in all aspects of this care, including participation in the plan, in carrying out and evaluating the assistance itself and that the social, emotional and psychological are crucial to understand and implement appropriate perinatal care[24]. In fact, in Italy, these recommendations were not implemented for a long time and have only started in the last 15 years, mainly because of the WHO/UNICEF BFHI project which has again focused attention on birth practices. In 2012, the "Mother-Friendly Care" step regarding procedures room in labor and delivery that affect the outcome of breastfeeding were made mandatory for the BFHI[25]. The goal of this step is to respect the physiology of birth, and includes the points listed in Box 1.

PRACTICAL IMPACT OF BIRTH INTERVENTIONS ON BREASTFEEDING

Solid international scientific evidence shows that minimizing medical interventions and preserving the normality of birth are associated with a more physiological, easier and safer birth[26, 27]. According to ISTAT data, Italy is the country with the highest rate of Caesarean sections (C-section) in the European Union: 36.3% in 2013, which is more than twice the WHO recommendations and almost 10 percentage points higher than the EU average (27%)[18]. The negative effects of a Cesarean section on breastfeeding are well known to all, although they are mitigated when the mother is supported by competent professionals. Step 4 of the BFHI is "Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour. Encourage mothers to recognize when their babies are ready to breastfeed and offer help if needed". Immediate and prolonged skin-to-skin contact is the most important strategy to help a mother and baby start breastfeeding, while routine separation of the mother-child is unjustified and harmful[28]. Immediate and prolonged skin-to-skin supports all aspects of newborn adaptation, including breastfeeding, which consequently improves bonding/attachment, milk production and normal baby's sucking[29, 30]. During this first hour, the levels of catecholamines in the newborn are high, the pupils

Box 1: *Mother-Friendly Care*

Hospital policies indicate that they require mother-friendly labour and birthing practices and procedures including:

- Encouraging women to have companions of their choice to provide continuous physical and/or emotional support during labour and birth, as desired.
- Allowing women to drink and eat light foods during labour, as desired.
- Encouraging women to consider the use of non-drug methods of pain relief unless analgesic or anaesthetic drugs are necessary because of complications, respecting the personal preferences of the women.
- Encouraging women to walk and move about during labour, if desired, and assume positions of their choice while giving birth, unless a restriction is specifically required for a complication and the reason is explained to the mother.
- Care that does not involve invasive procedures such as rupture of the membranes, episiotomies, acceleration or induction of labour, instrumental deliveries, or caesarean sections unless specifically required for a complication and the reason is explained to the mother.

are dilated, reflexes are sharp and the infant is in a rather high state of alert[31]. Infants in skin-to-skin contact with their mother exhibit models of hand coordination, sucking, massaging the breasts, moving towards the breasts and starting sucking[32]. This contact between mother and child causes a hormonal cascade, characterized mainly by the release of oxytocin, which improves women's self-confidence. Tactile contact increases gastric secretion in the mother and child, thereby promoting gastrointestinal motility and digestion[14]. Direct skin-to-skin contact counteracts thermal instability in the newborn, thereby preventing separation of the newborn from the mother, and a worsening of hypoglycemia which leads to inappropriate supplementation[33].

However, a national report revealed that only 69% of Italian hospitals have immediate skin-to-skin after birth, that the first breastfeed occurs within 2 hours of birth only 57% of the time, and that an even smaller number allow mothers who have had an elective C-section to have skin-to-skin contact with their baby at birth [18]. Caesarean section exposes the mother to possible complications that can interfere with mother-child attachment and compromise breastfeeding. Learning to care for the baby in the postoperative period can be very difficult, can undermine a mother's intention to breastfeed and increase the risk of difficulties with latch and subsequent postpartum depression. Breastfeeding promotes the normal conclusion of the pregnancy and the transition to the normal physiology of lactation. Infants who are born by C-section have a higher risk of impaired sucking, less transfer of milk from the breast the first 5 days of life, which results in increased supplementation with formula milk, which leads to breasts that are not emptied, which causes the subsequent suppression of lactation[34].

The choice of a C-section without labor reduces fetal endorphins, and lower endorphins affect the amount of colostrum and milk, as well as depriving the baby of important components for alleviating pain during a more difficult birth and compromising the physiology of breastfeeding[35]. Various authors report exclusive breastfeeding rates that are lower in women undergoing C-sections vs. those with vaginal births, both at 2 weeks and 2 months of age[36, 37]. Otamiri noted that children born by TC were less excitable, had a significantly lower neurological response during the first 2 days of life and had lower levels of catecholamines, all of which can be related to early neurological responses in the infant[38, 39].

The ObGyn can underestimate the important role of oxytocin during pregnancy, birth, breastfeeding and skin-to-skin. Women who give birth vaginally have higher levels of oxytocin than those who undergo a C-section, and have a greater increase in prolactin levels 20-30 minutes after the initiation of a feed, and the number of peaks is related to the duration of the exclusive breastfeeding[40, 41].

In 2001, Fisher and Rowe-Murray studied the impact of childbirth on the operational implementation of the "early initiation of breastfeeding within 30 minutes of birth" prospectively. Women who had undergone a C-section showed a significant delay in the beginning of breastfeeding: in Baby Friendly Hospitals (BFH), 27% of mothers began breastfeeding within 30 minutes of birth and 60% after 60 minutes, while in the 3 non BFH, no mothers who had undergone a C-section had been able to let her baby latch at the breast[42].

In addition to C-sections, episiotomies also appear to interfere with breastfeeding. Performed during a vaginal birth to increase the opening of the birth canal in order to facilitate the birth of the child, it sometimes causes lacerations that extend to the rectum, fistulas and dysfunction of sphincter muscles. Much research has been published in support of a non-routine and selective use of episiotomies.

Even the WHO recommends limited use of this practice and numerous guidelines have been published about this which reaffirm that there is no scientific evidence of potential damage to the perineum, future vaginal prolapse or urinary incontinence in the case of no episiotomy[43]. Unfortunately, despite these authoritative recommendations, routine episiotomies are still so widespread worldwide and are almost always done without the woman's informed consent. Its impact on the outcome of breastfeeding, however, has not been well documented. As early as 1981, Kitzinger carried out a study on the perception of women about their pain from episiotomy and how much this distracted from breastfeeding: 17% of the group with episiotomy and 21% of episiotomies and lacerations reported major disturbances during breastfeeding while only 3% of those without problems to the perineum did[44]. Skin-to-skin between mother and baby during the suturing of the episiotomy promotes the production of endogenous endorphins including oxytocin, causing a physiological relief from pain and facilitating early lactation.

Because prevention is better than treating, preventing possible damage at birth continues to be the best strategy. Safeguarding the physiology labor, a mother's choice, the freedom to move and assume positions of choice, light eating and drinking, avoiding invasive procedures and routine use of non-pharmacological methods to relieve pain are essential. All mothers must be supported by competent people to initiate breastfeeding, but mothers who have

children with problems must be so even more, even if these newborns will be under the neonatologist's care.

Oxytocin plays a key role during labor, childbirth, lactation, mother-child bonding, sexuality, development of self-confidence, digestion, calm and healing. Adrenaline is the antagonist of oxytocin in every situation or event that raises adrenaline levels in labor, delivery, or postpartum mothers reduces, inhibits or undermines the myriad of psychological or physiological processes necessary for optimal development of breastfeeding in the mother-child dyad. The negative influence of fear and stress on the progress of labor is well documented in the literature. More than 30 years ago, Lederman et al. measured levels of catecholamines in blood samples of healthy first-time mothers in labor and found high levels of adrenaline in the early stage of labor in women who had a slower labor and abnormal heartbeat fatal[45].

Separating a healthy mother from her healthy newborn immediately after birth has never been proven as safe and effective, and has been shown to cause negative effects[12]. However, both healthy newborns and even more so those with problems should not be separated from their mothers and should not be denied the comfort of being held their mother's arms, fed and cuddled using the of pain-reducing properties of colostrum and milk.

Research has confirmed that the type of labor have an impact on the beginning of lactogenesis II (start of copious milk secretion). A delay in the production of copious milk puts the baby at risk of insufficient caloric intake, exposure to artificial milk, problems in sucking, as well as compromising the start of breastfeeding and undermining the mother's confidence in her ability to breastfeed. "Not enough milk" is the most frequent cause of supplementation of breastfeeding and delaying the start of lactogenesis II is the negative consequence on the difficulties of labor.

During labor endogenous opioids (beta-endorphins) are produced, and increase with the intensity of the contractions, reaching a peak with the approach of childbirth. These natural neurotransmitters that increase during labor dull or modulate the mother's pain and pass through the placenta to the fetus is so it is ready for life outside the womb. These waves of hormones in the mother and fetus increase the production of surfactant, which clears the lungs of the newborn in preparation for extrauterine breath; mobilize brown fat for warmth and caloric support of body functions; provide a rich supply of blood to the heart and brain of the infant and trigger bonding between mother and child.

The beta-endorphins produced during labor and present in colostrum and breast milk protect the child from pain. Zanardo et al. found that beta-endorphins in colostrum were significantly higher in mothers who had given birth vaginally compared with those who underwent an elective C-section with epidural anesthesia and without labor[46]. They also collected samples of beta-endorphins in colostrum and transitional milk at 4, 10 and 30 days after giving birth in three groups of mothers: one group had given birth vaginally at term, another had given birth vaginally preterm (35.6 weeks +/- 0.3 days) and a third group with an elective C-section at term[47]. The beta-endorphins were significantly higher in the first 10 days postpartum in the colostrum of mothers who had given birth vaginally, while the highest concentrations were in mothers who had given birth preterm. They hypothesized that the high level of beta-endorphins in colostrum and transitional milk could be related to the adaptation to stress and other potential conditions. The discovery of the highest levels in mothers of preterm infants, who need to have greater adaptability, suggests a protective role in preterm birth. The administration of epidural anesthesia causes a sharp drop in levels of beta-endorphins.

CONCLUSIONS

Given the impact of birth practices on breastfeeding, the OBGYN should no longer claim that breastfeeding is just for midwives and pediatricians and does not concern him/her, since the BFHI has amply demonstrated that breastfeeding involves all maternity staff transversely. The greater the collaboration with the mother-child dyad, using a common language and a non-judgmental communicative approach, the more effectively they will be able to protect, promote, and support breastfeeding. It is important that ObGyns have appropriate knowledge about the practice of breastfeeding. A sufficient amount of time should be given to both the physiology and pathology of lactation during residency in obstetrics and gynecology. "Mothers and babies form an inseparable biological and social unit; the health and nutrition of one group cannot be divorced from the health and nutrition of the other"[1]. Unfortunately, the moment of birth divides work responsibilities: birth is the domain of the ObGyn, while infant care is the responsibility of pediatricians. The responsibility of breastfeeding does not belong to one single profession: it requires the collaboration of all. The program of study for residents in pediatrics and gynecology still does not always include evidence-based management of breastfeeding. Midwives are an exception to model of separation who takes care of

women during pregnancy, birth and postpartum. The WHO has identified the midwife as a key healthcare professional to follow pregnancy and normal birth including recognizing risks and complications as well as helping with breastfeeding. Although midwives are very supportive of breastfeeding, unfortunately, they do not normally have a specific training course (the WHO/UNICEF 20-Hour Course, which is considered the international standard training in breastfeeding) in their program of study. Only recently in very few midwifery programs in Italian universities has this course has been included as part of their training. In 2013 the Baby-Friendly University program was launched in Italy, which includes a series of learning outcomes about breastfeeding and counseling, in addition to standard training, as well as an external assessment by a team of UNICEF assessors at the end of the Midwifery program. So far, only the University of Milan-Bicocca was has completed the UNICEF evaluation.

The WHO/UNICEF Baby Friendly Initiative, with its multidisciplinary approach, is capable of overcoming the fragmented vision of the mother-baby, helping mothers make informed choices about infant and young child feeding. A well-informed woman will expect more, including the implementation of best practices according to international standard while an uninformed one will suffer mismanagement, blaming bad luck for not having enough milk. The OBGYN, like other healthcare workers, has a key role and a clear responsibility in preserving the entire reproductive process in a setting of social and emotional support, free from fear, from anxiety and danger. His/her "actions" during labor and childbirth, are not without consequences may indeed have repercussions on breastfeeding so the understanding of these issues, the ability to work in teams with other healthcare providers with the same breastfeeding training and respect the dyad mother-child can really help contribute to promoting breastfeeding.

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