

Over medicalization of birth: a new risk in developing countries

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Background

In the last century, developed countries have achieved significant advances in population health and in maternity care, and have been able to drastically reduce maternal and perinatal risks. On the other hand, pregnancy and birth are more and more being treated like diseases. Hence we are facing a more and more frequent use of technology, drugs and surgical procedures even in low risk pregnancy and delivery. This medicalized, high - tech maternity care often leads to unnecessary, expensive, dangerous, invasive obstetric interventions (Wagner, 2001). In fact, these interventions are often introduced without scientific evidence that demonstrate their effectiveness and necessity (Wagner, 2004; Grandolfo *et al.*, 2002; Villar *et al.*, 2006; Banta, 2003; Alexander e Kotelchuck, 2001; Howell, 2001); they cause waste of economic and human resources; create in women losing control over conditions of labour and delivery and lead to disempowerment processes.

Technology is not necessarily synonymous of progress: excess of medicalization in maternity care cannot lead to improvements in maternal health (Wagner, 2001 and 2004). Rather, improvement in maternal health is determined by an increase of overall population health and by country’s social and economic development.

The situation described above led the World Health Organization (WHO) to evaluate the effectiveness of maternity care (including antenatal, perinatal and postnatal care) and to recommend models of good practice.

Antenatal care is the set of interventions that pregnant women receive from organized health care service. The aim of antenatal care is to prevent, identify and treat conditions that may threaten the health of the foetus, of the newborn and the mother, and to help women approach pregnancy and birth as positive experiences (Banta, 2003). From 1929 antenatal care model recommended at international level includes 12-14 visits during pregnancy. The content of antenatal care has changed over time, because of progress in diagnostic and technology, but the reference model was stable (Hall, 2001). Several studies proved however that this model was not based on scientific evaluation (Villar, *et al.*, 2006; Banta, 2003).

Considering these results, WHO has developed a light, simplified model of care and has evaluated it with randomised controlled trials, conducted in four countries differing in stage of development and in the antenatal care management. Results show that new and traditional models have same maternal and newborn health outcome; additionally, with the new model resources is saved (Villar *et al.*, 2001 e 2002; Banta, 2003).

Progressive excess of intervention has occurred in labour and delivery as well. Natural delivery time should follow a circadian rhythm; nevertheless, time of birth has progressively changed, becoming rare during the night, and frequent during working time. This is a results of increasing use of induction and caesarean section. (Fano 1996; Heres *et al.*, 2000; Wagner, 2004). High and unnecessary use of caesarean section (CS) is a symbol of over medicalized birth in developed countries. International community considers high CS rate as indicator of bad quality in maternity care (Villar *et al.*, 2006): indeed inappropriate use of CS has negative consequences on mother/newborn’s health (Smith *et al.*, 2003; Betran *et al.*, 2007). WHO recommend a maximum CS rate around 10-15% (WHO, 1985).

Regarding postnatal care, international community focuses on breastfeeding practice. According to WHO almost all women can feed at least one child exclusively with their own milk; additionally it has been proved that breastfeeding implies benefits for mothers and the babies, both in terms of short and long - term health (Furman *et al.*, 2004, WHO, 1993; Cunninghamham *et al.*, 1991). Nevertheless initiation, exclusivity and duration depending strongly on health policies and developed countries promoted and neglected this practice several times (Vahlquist, 1975; WHO, 1982). For these reasons WHO, UNICEF and even the European Commission recently are engaged to protect, promote, and support breastfeeding. (WHO/UNICEF, 1989;

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European Commission, 2004); in accordance to WHO's guidelines all infants should be fed exclusively with maternal milk for 4-6 months from birth.

International studies regarding developed countries show that medical factors are insufficient to explain different degrees of medicalization in maternity care (Berglund e Lindmark, 1998). Correlation between women's social-economic status and access and intensity of antenatal care are tested (Rowe and Garcia, 2003): some results suggest that excess of care are more frequent in high status women (Simoes *et al.*, 2006); but other studies find that these women have low risk to have excess of care because are more conscious of their choice and live with more empowerment their motherhood (Pinnelli and Fiori, 2007).

Finally, international research underlines the importance of women's information and involvement: putting the woman in the centre and in control – which means favouring her participation in the process of planning, carrying out, and evaluating the care - is a key to re-humanized maternity care and a way to limit the excess of medicalization (Robson, 2001; Donati *et al.*, 2001; Wagner, 2001; WHO, 1985). This fact has been confirmed by some Italian studies as well: attendance in antenatal classes is associated at lower risk of CS and of bottle feeding while in the hospital (Grandolfo *et al.* 2002; Baglio *et al.* 2000; Sabbadini 2002; Sabbadini and Sebastiani, 2002).

Receiving information and support during pregnancy, labour, delivery and postnatal period are proved to be determinant also on initiation and duration of breastfeeding (Langer *et al.*, 1998). Moreover, high medicalized birth is unfavourable on breastfeeding: breastfeeding is less frequent in women having CS (Di Priamo, 2007).

The excess of medicalization in the birth process is typical of several developed countries. Italy is a clear example of this process. First, it is a highly developed country where mother and newborn are at very low risk and they can be assisted with any comfort and by skilled health personnel. Besides, Italy has highly medicalized, 'high tech' maternity care.

Objectives – Hypothesis

The general aim of this paper is to alert about the risk of excessively medicalized maternity care, giving some hints about how and why this phenomenon is developed in several western countries and which strategies can help to avoid it. To reach this general aim, two sub-goals are defined, considering Italy as example:

- monitoring and evaluate evolution of medicalization in maternity care in the last decades;
- characterization of factors determining excess of medicalization.

In accordance with international evidence, we suppose increasing of medicalization in each different component of maternity care.

We suppose, moreover, that women's high socio-economic status, education and autonomy protects them from high medicalized behaviour both during pregnancy and during birth and postnatal period. Indeed, we expect than these women can face maternity care with more information and awareness: in fact these women should be able to know which care are necessary and adequate, and to avoid excess of interventions.

Data and methods

Analysis is conducted on Italian women, at national and regional level.

Data used come from "Indagine Multiscopo – Condizioni di salute e ricorso ai servizi sanitari, 2004-2005" a national sample survey conducted by Italian National Institute of Statistics (ISTAT) and regarding population health conditions and health services attendance. This survey includes one section on pregnancy, birth and breastfeeding, including information on 6,000 children born 5 year before the survey (from 1999 to 2004).

Data used to monitor the evolution of medicalization are from previous editions of the same survey (from 1987).

Where possible, analysis of trend concerns last 20 years, because in this period is observed strong improvement in maternal health and diagnostic technology, but over medicalization of pregnancy and delivery is appeared as well. To better understand this phenomenon we defined some indicators of excessively medicalized maternity care. We selected the most significant indicators in the three different

phases that women cross - pregnancy, birth (labour and delivery), and breastfeeding – to analyse excess in medicalization in each component.

To evaluate which are “excessively medicalized behaviour” we refer to threshold values recommended by WHO.

Following variables are used as independent or control variables:

- context variables: region of residence (to consider social, economical, and cultural environment and the health service system where woman lives during pregnancy, birth and postnatal period), public/private care during pregnancy, private/public/home place of delivery, year of birth of children (to take into account changes during the five years considered);
- social and demographic variables regarding mother and her partner: age, parity, educational level, employment, marital status, citizenship;
- variables regarding mother experience on pregnancy, birth, breastfeeding: previous natural/operative delivery (if multipara), attendance to antenatal class, partner attendance to antenatal class (as proxy of partner support), problems and risk factors during actual pregnancy, gestational week and weight of newborn, multiple/simple birth, previous breastfeeding (if multipara).

To test our hypothesis logistic regression models are used.

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