Childbirth and Maternal Mortality in Morocco: The Role of Midwives

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> *It is no exaggeration to say that the issue of maternal mortality and morbidity, fast in its conspiracy of silence, is in scale and severity the most neglected tragedy of our times.*
> (UNICEF 1996, in Gendercide, 2002)

Amina, a 20 year-old woman, living in a small rural village of Morocco, is expecting her first baby. Her labour started when she was at term while her husband was far away; her mother-in-law was assisting her. After almost 24 hours of difficult labour, seeing the distress that Amina was going through, the mother-in-law called for her second son in order to help for a transfer to the nearest village birthing center. After a few hours, Amina's brother-in-law was able to bring her to that center using a neighbour's tractor, as the sun was setting; the only midwife on duty had already left. Two hours later, after much search, the midwife arrived and diagnosed an obstructed labour. She requested that Amina be transported to the hospital, which was far away; darkness and lack of gas in the truck made them wait for the next day's once daily public transportation. Amina suffered a haemorrhage. When they got to the hospital, the gynaecologist was not available; the members of the staff were impatient, increasing the level of anxiety and pain that Amina was experiencing. By the time the gynaecologist arrived, Amina's uterus had ruptured. Amina and her baby girl died.

Amina's story is not unique and happens unfortunately way too often in developing countries. At the beginning of the third millennium, every minute, a woman dies because of a complication related to childbirth (Cook et al. 2005).

Maternal Mortality

According to the Tenth Revision of the International Classification of Diseases (ICD-10), maternal mortality is defined as:

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> The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (WHO 2007).

Maternal deaths can be either direct or indirect. Direct obstetric deaths are those resulting from obstetric complications of the pregnant state: haemorrhage, pre-eclampsia/eclampsia [convulsions], or complications of anaesthesia or caesarean section. Indirect obstetric deaths are those resulting from previously existing conditions, or diseases that occurred during pregnancy, which were not directly associated with obstetric causes. They are aggravated by the physiological effects of pregnancy, for instance, further to a cardiac failure, an anaemia, or AIDS (SOGC 2005).

How Important Is Maternal Mortality?

Labour – the act of giving birth – is often referred to as one of the most dangerous acts in the world. Only a few countries have been able to reduce maternal mortality, such as Australia, Canada, Denmark, Finland, Ireland, Japan, and Norway (WHO 2005). Unfortunately, in most developing countries, maternal mortality remains one of the most fatal experiences for far too many women. According to the estimates of 2005, 536,000 maternal deaths were recorded worldwide, with developing countries accounting for 99% of the total (WHO 2007). Slightly more than half of the maternal deaths occurred in the sub-Saharan Africa region alone (270,000).

The mean proportion of maternal mortality, which is the number of maternal deaths per 100,000 live births, was estimated to be 400 in the developing world (WHO 2007). This expresses the risk of maternal death related to the woman's health status, her access to health care services and the quality of care available to her.

Most of the women who undergo such tragic experiences are young, leading to significant disruptions for their family and community. One of the most drastic events might be the death of the child. Recent data reported by UNICEF (2008) indicate that further to the death of the mother during childbirth or soon thereafter, the child's risk of death in his or her first two years is 10 times higher than for other children. For those women who survive, they often are faced with physiological and psychological dysfunction. One of the most common consequences is obstetrical fistulae and sustained silently suffered depression (Cook et al. 2005).

Why Do Women Die Before Giving Birth, in Labour and After?

The most frequently documented causes underlying maternal mortality in developing countries are sustained haemorrhage (in 25% of the cases), infection (15%), abortion performed in unsafe conditions (13%), eclampsia (convulsion) (12%) and obstructed labour (8%) (Cook et al. 2005; SOGC 2005; WHO 2007).

Over the years, efforts to reduce maternal mortality in developing countries have focused on: (1) the reduction of the likelihood of pregnancy; (2) the reduction of the likelihood that a pregnant woman will experience a serious complication during childbirth or in the perinatal period; and (3) the improvement of the management of complications so that the risk of maternal death is minimal (McCarthy and Maine 1992).

Thaddeus and Maine (1994) developed a model of three levels of delay that prevent women in developing countries from having access to medical care in the pre, peri and postnatal periods. This model puts the emphasis on the socio-cultural dimensions of the delay responsible for the maternal mortality. According to these authors, women experience a delay in:

(1) the decision to seek care (socioeconomic factors, perceived accessibility, perceived quality of care);
(2) the arrival at a health facility (location of health care, distance, transportation, costs); and
(3) the provision of adequate care (poorly staffed and equipped facilities, inadequate management).

Amina's case shows that the combination of all of these three delays played a role in her death. Any intervention to reduce maternal mortality in developing countries must address these multidimensional levels of delays and consider the socioeconomic status of women and the culture in which they live.

Midwives' Role in Morocco

Morocco's Childbirth Context

Morocco is a North-African Arabic country. According to the UNICEF report: *Tracking Progress In Maternal, Newborn and Child Survival: The 2008 Report,* the Moroccan population in 2006 was made up of 30,853,000 people (women and men) and 2,978,000 under-five children. There were 635,000 births (85% birth registration) (UNICEF 2008). In 2006, the under-five mortality rate was 37 per 1,000 live births, infant mortality rate at 34 per 1,000 live births with a total under-five deaths at 23,000 compared to 635,000 births.

In regards to maternal mortality ratio in 2005, there were 240 per 100,000 live births with a ratio of 390 per 100,000 live births in rural areas; the lifetime risk of maternal death is reported to be 1 in 150 and total maternal deaths at 1,700. Forty-five percent of pregnant women receive prenatal care, and 40% of births are assisted by skilled personnel (Cook et al. 2005).

Obermeyer examined, through a descriptive study, the notion that Moroccan women's infrequent use of health facilities during pregnancy and birth results from their lack of awareness of the risks of childbirth (Obermeyer 2000b; Obermeyer

Fig. 1 Map of Morocco

2000a). She concluded that women's infrequent use of health facilities reflects the uncertain circumstances of labour and problems in accessibility and quality of health services. Nevertheless, differences in the concepts of risk that women hold and express are a function, not so much of an inability to realize the occurrence of such risks, but rather of the real alternatives they have for controlling these risks.

Furthermore, women's relative lack of freedom to make decisions about their own health and wellbeing hampers their capacity to use health services when needed where these services are accessible and available. All these determinants contribute to the risky context in which a number of women in Morocco live their experience of pregnancy.

Many women find themselves in a geographic context with limited reproductive health services in addition to strong socio-cultural beliefs and values, translated in

a few traditional interventions, which may affect the quality of the perinatal experience, at times even putting women at risk (Buor and Bream 2004; Callister 2005; Thaddeus and Maine 1994; SOGC 2005). For example, the family members treat infertility with much concern, and the woman is most often perceived to be the dysfunctional one. The concerned couples might consider investigating and treating their infertility as a last resort; however, these services might be unavailable and inaccessible. Crognier (1996) found that fertility differs among geographic groups in the region of Marrakech, Morocco. Living in an urban area accelerates the start of fertility. In addition, the urban and rural lowland reproductive behaviour of women differs from those living in the rural highlands, leading to differentials in reproductive success as well.

During the course of the pregnancy, most women in Morocco, especially those in rural areas, must demonstrate a high capacity of patience and discretion with regard to any discomfort, particularly in the presence of their husbands and the male members of their community. However, it should be noted that the pregnant woman's desires are usually addressed by her circle of acquaintances; this is related to the fact that one of the many beliefs is that an unsatisfied desire may lead to baby's skin abnormalities.

Minor symptoms are usually dealt with outside the conventional health services. Morning sickness is often treated by a diet including herbs. Such diets are not always well balanced for pregnant women and have been known to lead to dehydration and gum bleeding. Lack of Vitamin C is usually compensated with milk, dairy products, vegetables and fruits. Often, women will take hot baths to "warm up the contractions" when their labour is delayed.

Once the baby is born, most women use henna and kohl (a traditional black makeup made of antimony) to deter the malevolent spirits so that they keep physical and mental illnesses away, increase bonding with the infant (Cartwright-Jones 2007) and guarantee that the baby will grow in beauty.

According to Obermeyer (2000c), there are three major themes that define the traditional Moroccan vision of birth. These are:

(1) The importance of hot and cold in specific situations. Notions of hot and cold support a set of practices in birth that seek to regulate the "temperature" of the woman's body and ensure an optimal conclusion to the process of birth. A warm bath makes the labour more active, and warm blankets prevent the women from getting cold after labour.
(2) The symbolism of blood. An awareness of the danger of excessive bleeding during birth is reinforced by the symbolism of blood in Moroccan culture. Such perceptions are consistent with the biomedical tenet that haemorrhage is one of the major causes of maternal mortality and with the emphasis in public health on ensuring that health facilities have the capability to deal with emergencies resulting from haemorrhage.
(3) The metaphors of openness and obstruction. Both male impotence and female infertility are conceived of as blockage, while fertility and normal birth are symbolically associated with openness and unhindered flow. These beliefs are

based on principles that differ from the biomedical notions of anatomy and physiology of labour and birth, while they share some similarities. For example, dangers associated with the placenta correspond to possible complications acknowledged in biomedical discourse.

Most women in Morocco usually alternate between biomedical and local knowledge in their practices, while they simultaneously seek care from "traditional" and "modern" caregivers. While the traditional birth attendants are easily accessible, this is not the case with health care professionals, and particularly with midwives.

Nevertheless, the basic requirement for addressing maternal mortality includes the availability and access to skilled professionals, particularly of midwives, to assist each pregnant and labouring woman. In this regard, it is important to note that the Ministry of Health of Morocco, supported by the UNFPA and a few other organisations, is in the process of developing a strategy, including the strengthening of a training program, to increase the availability of and access to qualified and skilled midwives to all women.

Midwifery as a Health Profession in Morocco

The midwife can intervene in a variety of practice settings: a University Center Hospital, a provincial hospital, a health centre, a birthing home, and a community clinic. She can be assigned to the admission room, the labour ward, the postpartum service, or the mother and child's health unit. She offers prenatal, intrapartum and postpartum care and ensures the transfer of women who present a complicated pregnancy.

The midwife is thought to be wise; she is responsible for two lives and she plays many roles. She is supposed to collaborate with the physician, and in rural areas, the midwife cares for women "from door-to-door". In fact, if the woman arrives at the birthing home with all the members of her family, the midwife may then be able to provide counselling services.

The Moroccan midwife is expected to help from conception through the pregnancy, until the child is 5 years old. She has also to be a consultant for adolescents and young women preparing for their marriage and a consultant in reproductive health and family planning. Nevertheless, the Moroccan midwife seems to assume all these functions only in a few practice settings. She generally does not occupy her real role in the multidisciplinary perinatal team in the mother and child's health care system. Her activities are fragmented according to the variety of practice settings and the available health care services. She is often overloaded and finds her job very laborious. The impact of this is a bad relationship with pregnant women; there is often no communication, no respect, and poor treatment. Generally, the midwife is a "technician of the birth" and for most physicians she is only an auxiliary.

There is a great difference in the role of the midwives between rural and urban areas. Those who work in rural areas have a better chance of having a social role to play.

There is an acute shortage of midwives. Most often a newly graduated midwife will be assigned to a position in a rural setting without much hygiene, support (often times a physician and an ambulance are not available even if the health post is 25 minutes from the next hospital) nor regularity in her own hours of presence. She may not have access to a blood bank when needed. In addition to the lack of access to a hospital, the midwife may encounter resistance to the actual transfer when needed for a variety of reasons (e.g. costs of the transfer, of the hospital services and of health care).

Because of the irregular hours of her schedule and the fact that she is often away from her own family, she is exposed to many challenges regarding her own integration in the community let alone her responsibility to contribute to the training of the community. Her schedule often varies from one setting to another but seems to cover, most of the times, 12 hours/24 during 3 consecutive days and 72 hours off.

The midwife posted in the rural area may have a case load varying from 2 or 3 women a day to 2 or 3 women per month. In most rural areas, it is unclear what the role of the midwife is, creating confusion as to who should visit whom.

There is a health agent called *faisant fonction* (doing the job) who replaces the midwife in many settings and is considered to be better than the newly graduated midwives. In a rural setting, the midwife is called upon to act as an assistant in the operating room. To participate in prenatal clinics, she must establish a good relation with the nurse of the health centre.

In urban settings, the midwife ensures that the delivery does not present any complication and that the labour wards' activities move on; thus she can not be primarily concerned by the women's or society's health. She cares for about 30 women per day.[1] They work in a dyad and their schedule is: 24 hours per 72 hours. Thus, there is no time for interaction, education, communication, or active listening. A nurse is responsible for family planning and the midwife is chief of the labour ward.

Midwifery in the Moroccan Socio-Cultural System

The status of Moroccan women seems to have improved over the past few decades. The role of the midwife is very important regarding the maternal mortality problem particularly in rural areas. She is supposedly well prepared to guarantee the quality of obstetrical care to the women and their families. She used to be, while acting as a traditional birth attendant, a confidant, a companion, and a community leader involved in all the community and family events (Obermeyr 2000b).

Over the years, midwifery in Morocco has faced many challenges in the society. Being a woman is already an obstacle to gaining professional status and autonomy; being a midwife is even more complex. Midwives have to work with the traditional birth attendants, the *Kabila*, and might not inspire confidence compared to them. In fact, they are often very young (in their twenties) while the *kabilas* are older and better integrated in their sub-communities where they are very influential. The high proportion of illiterate Moroccan women makes their relation with the midwives

even more complicated. While midwives are supposed to be trained to "empower" women in their rights to access health services when needed, they are unable to do so. In many cases even when pregnant or labouring women need to go to the hospital (e.g. in cases of dysfunction of labour, haemorrhage), they do not for various reasons including geographical access and cultural constraints. Moreover, there are a lot of taboos in the tradition that prevent the midwife from playing her role as a reproductive health professional. For example, midwives cannot mention the issue of sexuality with women. Many midwives live in competition with the multipurpose nurses, the auxiliary midwives as well as the *kabilas*. They do not get the opportunity to advocate for women's health issues when and where it is required.

Conclusion

Moroccan midwives have low status and receive little recognition; this is the case in many countries that continue to have high rates of maternal mortality. In Moroccan society:

- The midwife has lost her specific socio-cultural identity.
- Being a woman is not a good asset for her: her place in society is promoted by a bad image and a negative reputation.
- Her domain of practice is not well defined and is governed by a Bill and a rule that is half a century old and not specific to the profession of midwife. This does not provide her with a specific professional recognition.

It is imperative that the reduction of such a complex and important problem becomes the responsibility of multidisciplinary health reproductive team of professionals; the midwife needs to be integrated so she can contribute to this multidisciplinary team as a "full professional" and make life easier and better for pregnant and childbearing women and their families.

Note

1. In Quebec, Canada, a midwife cares for 45 women per year.

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