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SCIENCE ACROSS CULTURES: THE HISTORY OF NON-WESTERN SCIENCE

Childbirth Across Cultures

Ideas and Practices of Pregnancy, Childbirth and the Postpartum

Springer

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THE HISTORY OF NON-WESTERN SCIENCE

VOLUME 5
CHILDBIRTH ACROSS CULTURES

Editor

HELAINE SELIN, *Hampshire College, Amherst, MA, USA*

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To my children. And especially to my granddaughter, Enna Rae Selina Sherwin, born 5th August, 2009.

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Introduction: "Babies Can Be Born Anywhere"

Helaine Selin

In 1969, I gave birth to my first baby in Malawi, Central Africa. I had been a Peace Corps Volunteer, and America seemed a scary place at that time, with political and social upheaval. I wanted to stay in Africa, which was then a peaceful and gentle place. My son was born without complication in a small hospital with very minimal intervention. My American doctor had told me to get help if I needed to use the toilet, and I rang for the nurse after a short while. When she arrived, she asked if I were okay, and when I said I was but that I was supposed to get assistance, she said, "All you did was have a baby." Perhaps this sounds rude, but it was of course true. So I walked down the hall and took a hot bath (the nurse came along and put some salt in it, to soothe the perineal area). An hour later, my hospital roommate's family arrived with a big platter of hot curry, and I sat on her bed and shared it with her. The whole atmosphere was very joyous – this was her fourth baby, born after the other children were grown – and we were both delighted with our achievements.

Two years later, I was in New York State, and when I got pregnant again I went to see the obstetrician that everyone went to. I explained that I had never been in a hospital (the one in Malawi didn't quite count) and that I was anxious about it. He said that I didn't need an obstetrician; I needed a psychiatrist. That set me on the road to finding a better way to have a baby, and I ended up in a Maternity Hospital (that had previously been a Maternity Home), run by women doctors. I had to do a bit of lying during my labor. I didn't want my pubic hair shaved, so I told one nurse that the doctor said I didn't have to, and I had to fight not to have an episiotomy – the fact that the baby was small made the doctor agree. This was a very easy birth, and the doctor warned me that I shouldn't say anything about it to the other women in the ward – they would be in pain and already annoyed at me because I kept the baby with me and they couldn't smoke in the room. I was able to leave a few hours after my daughter was born. The experience was wonderful, but that was only because I knew how to advocate for myself and because the birth was uncomplicated. I noticed that I wasn't supposed to take a bath for three weeks, while in Malawi I had

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one right away. The relaxed attitude was gone; even in my case it was clearly a medical procedure, although nothing like what women go through now in America.

A colleague of mine, Rebecca Miller, had her first baby when she was a Fulbright scholar in Carriacou (Grenada), in the Caribbean. She had been concerned about having a baby overseas, but her mother had reassured her, “Babies can be born anywhere.” She had her second baby at Yale University Medical Center – a hi-tech, ultra-modern environment. And even though her births were much more difficult than mine, the one in Carriacou was full of joy and comfort – a human, bonding experience with the staff and the parents and baby. The one in Connecticut took all the joy out and replaced it with technology. In her descriptions of the birth, one of the notable things was color – the Caribbean birth seemed to occur in a world of green and flowers; the US birth was grey.

I started to compile this book with the notion that I would learn the different ways that birth is experienced around the globe. What I’ve discovered has been a bit of a shock. Increasingly, around the world, and certainly in urban areas, the medical model of childbirth is winning out and wiping out traditional methods. I see two explanations for this. One is that there is an association between the concept of “modern” and having babies in a hospital. The old ways are clearly outdated, and the way to show progress is to have a medicalized birth. As Davis-Floyd and Cheney say in their chapter, “the influences of industrialism, technocracy, and gendered power inequities have generated a biomedical hegemony that has been perpetrated around the world through both colonialism and the maladaptive imitation of what appears to be ‘best’ because it is modern.”

The other has to do with the culture of fear that is spreading everywhere. We are increasingly afraid of the old ways. Many women choose to have a cesarean birth, because of the fear of childbirth pain. In 2007, the National Center for Health Statistics released the preliminary US national cesarean rate for 2006: 31.1%. This rate has increased by 50% over the past decade, reaching a record level every year in this century. The World Health Organization also shows record increases in cesareans for many countries. As Harvey and Buckley say in their article on China, “the scientific method of the cesarean-section delivery becomes the ultimate modern and civilized way of bringing order to the chaotic and unruly process of birth. However, the high cost of cesarean delivery compared to vaginal birth means that only those of means can afford this ‘modern’, ‘civilized’, technological birth experience. Therefore, cesarean birth has in many circumstances become a status choice, rather than a medical choice.” (In some hospitals in China, the rate of cesarean is as high as 90%).

There is also the notion that a cesarean is safer than a vaginal birth. This is patently false. First, it is true that pain during labor is lower with a cesarean, but the pain after is much more intense and goes on so much longer. The mother has had major surgery (although this is often downplayed in discussions of the procedure) and will have two to six weeks of recovery in addition to dealing with a newborn baby. Risks to the mother are much higher: inflammation and infection of the membrane lining the uterus, increasing bleeding, urinary tract infection, decreased bowel function, blood clots, wound infection, reactions to anesthesia, and increased

risks for future pregnancies. Risks to the baby include breathing problems and fetal injury from the knife (MayoClinic.com). More and more women seem to follow the obstetrician's idea that cesarean birth is more orderly and controlled (Bryant et al. 2007).

The irony is that countries around the world that are trying to be "modern" are having increasing rates of cesarean birth and over medicalized birth experiences, while some in the US are trying to de-medicalize the experience. It is different in Europe because there is national health care, so there is no reason to encourage expensive hospital birth for normal pregnancies. The government actually encourages having babies at home if everything is fine. In my country and elsewhere, childbirth is a big money maker. Yanagisawa, in her chapter on Childbirth in Japan, cites a paper by Shirai who observed, while studying old midwives, that old midwifery followed values of aesthetics and etiquette. These values changed to safety and hygiene. We have given up the ecstasy of childbirth for a sterile, safe, vacant experience.

The matter of ecstasy is a real source of concern. In a recent study (2008), paradoxically at Yale University, James Swain and his team discovered that mothers of babies born naturally were more sensitive to hearing their own child's cry than those who had caesarean births. Brain areas related to mood were also more active in mothers who had delivered their children via natural birth. One explanation was that the hormone released during birth, oxytocin, is not released during the cesarean operation. Interestingly, there is also an increase in post-partum depression in mothers who have cesarean births.

Many articles in this book express the view that home births are unsafe and that it is the combination of the home birth and the difficulty of getting to a hospital in rural parts of the Third World that is responsible for high infant and maternal deaths. When I asked the authors for evidence for this, they weren't really able to give it. Many accept the World Bank and World Health Organization's views, which seem to me to be quasi-colonial, that having babies at home is dangerous and somewhat backward. Harish Naraindas addresses this issue in his chapter on India and cites Alpana Sagar, who said that there is no evidence that infant mortality is higher at home. This is not to say that the old ways are definitely better. Some of us are fortunate to be able to have choices and pick which parts of the traditional and modern suit us best. But in much of the world, women still cannot make decisions about their birth experiences. Their husbands or mothers-in-law make decisions for them, which sometimes results in their death or their babies'. Many cultures, such as Morocco and Bangladesh, encourage silent and sometimes solitary births. Women must go through the experience without crying out, or they bring disgrace on their families. In many cultures, such as Bangladesh and the indigenous people of Australia, childbirth is "women's business", and one of the problems of hospital or clinic births is that male doctors and attendants are present. There is also often a problem with the exposed method of birth practiced in the West; many women in cultures that demand modesty of women, such as the Simbo people in the Solomon Islands, are horrified to have their vaginal area open and exposed to anyone, including other women.

On the other hand, especially in Asian cultures, there is a long period, post-partum, where women are treated especially well, encouraged to do nothing besides feed the baby and relax. In other cultures, the mother in the post-partum period is considered unclean and polluted, as with the Hmong, and she must stay in a separate place for weeks.

In editing this book, I've realized that women have a rough time. Either they have overbearing husbands, mothers-in-law, nurses, or doctors, who dictate how they should behave and what they should eat and drink, or they are left on their own to tackle an often frightening experience. It is true that babies can be born anywhere, but often the experience for the mother is a difficult and dangerous one.

Childbirth Across Cultures explores the childbirth process through globally diverse perspectives in order to offer a broader context with which to think about birth. From the prenatal stages to the postpartum, a myriad of rituals, herbal management, and women-centered assistance mark labor and birth as biocultural events. Another situation common to childbirth is the notion of power. Who controls the pregnancy and the birth? Is it the hospital, the doctor, or the in-laws, and in which cultures does the mother have the control? These decisions, regarding place of birth, position, who receives the baby and even how the mother may or may not behave during the actual delivery, are usually made by other people. In the United States, it is often the technology associated with birth, and the people who know how to operate it, that direct the birth process. But in many parts of the world, the mother may have less authority than the midwife or her mother-in-law.

The book is divided into two parts. The first contains three chapters: (1) a fascinating evolutionary perspective on birth, (2) childbirth narratives, and (3) breastfeeding and child spacing. These differ from the other chapters, because they are multicultural and not related to one place, and they pave the way for the others. In another sense they could be put at the end of the book, because they also explain and give meaning to the other chapters. We think it will be good to bear them in mind as you read the others.

The next section starts with a history of childbirth in America. This might seem to have no place in this book, but as I just said, the American way of birth is spreading around the world the way blue jeans and Coca-Cola has. The other articles deal with individual countries, although not, of course with individual cultures, as many countries have many different ethnic groups. We can hardly speak of West and East anymore, not to mention trying to talk about a country like India as one homogenous place. The article on Indian midwives is apt in this case, as it deals with rural midwifery as a form of knowledge. What Dr. Ram says applies to many other cultures, even in the West, with regard to midwives. We succeeded in having chapters from every continent, although the absence of Europe might be noted. My advisory editor's and my intent originally was to cover the non-Western world, although again those lines are increasingly blurred, and it seemed necessary to include some material on America, although we also included one of the North American indigenous cultures, the Navajo.

We hope that the research in this volume, conducted by professional anthropologists, midwives and doctors who work closely with the individuals from the cultures they are writing about, will offer a unique perspective direct from the cultural group.

Reference

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Birth and the Big Bad Wolf: An Evolutionary Perspective[1]

Robbie Davis-Floyd and Melissa Cheyney

Once upon a time, there were six little pigs who set out to seek their fortunes in the world (okay, we know that in the original story there were only three, but just bear with us here!). Far away from home they journeyed, until the first little pig spied a peaceful meadow with a stream running through it; there he stopped his hot and weary journey. In 2 hours he had built himself a house of straw, then he spent another hour building animal traps, after which he set about to laugh and dance and play all day. It was like that every day – he would spend 3–5 hours hunting wild game, after which he could do as he pleased. The female pigs gathered wild grains, tubers and fruits so that food was available even when the hunt failed. Although the first little pig didn't always like to admit it, the female pigs brought in 70–80% of the diet from foraging, and often helped with the hunting and trapping as well. He was feeling very content, for he had wished to find an environment that could sustain him and his small band of kin pigs, and he had. Sure, he and his like-minded friends experienced high infant mortality rates and a resulting life expectancy of around 35 years, as well as high death rates from endemic disease and accidental death. However, as they discussed frequently in their abundant leisure time (in between the long stories they loved to tell), these problems were offset by their varied and nutritious diets and high mobility, which made sanitation and infectious disease transmission non-issues. Life was good and gender relationships egalitarian for the most part.

The first little pig and his kith and kin were so successful at their hunting and gathering that after a couple hundred thousand years, they had overpopulated the most fertile areas of the world. Under pressure to feed so many mouths, necessity (the mother of all invention) was combined with the knowledge of plant life cycles developed during the days of gathering to create a new subsistence strategy–horticulture. The second little pig and his matriline began to fell trees and to plant gardens, and for the first time in human history, planted foods to supplement those that were foraged. The work was harder and longer – it took 5–6 hours a day – but still they had plenty of leisure time for singing, dancing, and storytelling. The

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females did most of the work anyway, planting, cultivating, harvesting and processing the food they grew, and chopping wood and carrying water, while the males spent their time hunting and performing the rituals that assured them that all was, and would remain, as it should be. They built their houses of sticks because they were still semi-nomadic, moving their villages every 5 years as garden soil and large game populations were exhausted. This kept life interesting. The diet was highly varied and population densities low enough to keep infectious disease in check, and while the seeds of gender inequality were sown along with the first domesticated plants, for the most part, life was good for the horticultural pigs.

The third little pig was horrified at his brothers' lack of industriousness. He knew the danger they were in from the big bad wolf, and that silly little houses of straw and sticks stood no chance should the wolf try to huff and puff and blow them down. So he went much farther down the road and through the millennia, away from the wolf's territory, until he found a nice flat field good for planting, near a large river from which he could divert water for irrigation. He set to work building himself a sturdy house of wood and stone that the wolf could not blow down. It took him weeks of hard labor, working 8–10 hours a day to build the house, and then more weeks to dig the irrigation canals and plant his large field. He knew that his lazy hunter-gatherer and horticulturalist brothers would soon be coming to him for shelter and food, and he, the industrious agriculturalist, planned to be prepared. The third little pig and his friends enjoyed increased population densities as more of them settled down and committed to growing their food. Yes, there was less variability in what they had to eat, and food production was extraordinarily labor intensive, but with the availability of safe weaning foods, female pigs could nurse for shorter periods of time allowing for a return to fertility and shorter interbirth intervals so more little pigs could be born to work the fields and build the communities. Standing water from irrigation ended up being a pesky vector for mosquito-borne diseases like malaria, and sanitation and acute crowd infections became an issue, but agriculturalist pigs could also acquire possessions, own land and rise to the tops of social hierarchies, especially where female pig production and reproduction could be exploited. He was sure that he was much safer from the big bad wolf than his brother pigs who were still living in the forests, the jungles, and the wild fields where danger roamed.[2] *Life was good, although without much leisure, the third little pig didn't have as much time to enjoy it.*

The fourth little pig watched with resentment as intensive agriculture took over the most fertile land, and foraging and small-scale horticulture became marginalized. His desire to roam and explore new lands was the hunting-gathering legacy of wanderlust, and he had no desire to settle down. He gathered up his goat hair tent and began herding animals through agricultural territory, exploiting high hills, low valleys, the wild Northern steppes and the plains of Africa, developing humankind's fourth subsistence strategy – pastoralism – and enjoying his freedom. Because male pigs tended to own, care for and manage the herds, and because they often had to fight for rights of passage through agricultural lands, pastoral warrior cultures developed that functioned to enhance male pig power. Their domination of herding tended to be reflected in other aspects of social organization – including the near

universality of patrilineal decent, patrilocal residence patterns and segregation of the sexes. Life was good for the male chauvinist pigs, but symbolic and social stratification by gender spelled trouble for females, especially where strict honor codes and the exchange of women as chattel challenged girl-pig autonomy.

The fifth little pig, watching the dependence of his brothers and sisters on nature and knowing its dangers, was sure he could improve on matters. Farming could be industrialized, and by moving into cities and building large tenements made of bricks that could sustain huge populations densities, a work force would be available to modify the fruits of agricultural labor into value-added products for sale under a capitalistic economic system. Yes, some exploitation of pig children and recent pig immigrants would be necessary and infectious disease rates would rise, especially where sanitation and food quality was poor, but the fifth little pig could also amass huge stores of material wealth because he owned the means of production. With eventual improvements in sanitation, basic public health interventions and an intentional decrease in family size as children became more expensive to raise, life expectancy would rise, providing a long lifetime over which to feel the intense need to buy the products produced in factories with innovative technologies and machinery. The fear of the big bad wolf would become a distant memory thanks to habitat destruction and the increasing distance of settlements from unmodified landscapes. Life was good for the fifth little pig and his industrializing friends, especially when they could exploit natural resources and a cheap labor force in the other pigs' homelands.

The sixth little pig was so far removed from nature that he lost all sense of its value and devoted himself to inventing complex technologies, building gleaming cities of glass and concrete, paving over all things green and putting as many products as possible into elaborate plastic wrappers with widely identifiable logos and branding. He developed a technocratic society[3] *organized around an ideology of progress through the development of high technology and the global flow of information. Beginning just a few decades ago, the forces of globalization, consumerism and neocolonialism transformed even the most remote agriculturalists into dependents in an exploitative, global economy that produces vast inequities between high and low-income nations. The sixth little pig and a few of his elite investor friends benefited, while many others struggled to access even the most basic of resources. Soon environmentalist pigs began to notice that the nature that they had worked so hard to tame through technology was turning on them as industrialization heated the planet, melted the glaciers, and polluted the atmosphere. The sixth little pig started to wonder whether he and his industrialist brother had gone too far.*

And sure enough, as we all know, the big bad wolf (who escaped from a zoo rehabilitation program) did in fact show up, and he huffed, and he puffed, and he blew down the houses of the little pigs, who all came racing over to the house of their technocratic brother, who let them in and slammed the door just in time! In the end, they were safe in the sixth little pig's McMansion where the big bad wolf could not harm them. But the first five little pigs were unhappy with the eighty-hour work week, lack of medical insurance and rampant consumerism, perceived needs and massive debt that the technocracy had to offer. They were frustrated by the lower status that was

culturally assigned to them because of their "uncivilized" pasts. They felt uncomfortable in the air-conditioned home with the zero lot line, and missed the sounds of the wind in the trees. The first five little pigs became medical anthropologists and began to reflect on what had been lost when modernization became the primary goal during the Industrial Era. They realized with regret that the big bad wolf was nothing more than a metaphor for the wild, uncontrollable and chaotic natural world that pigs had been attempting to tame through culture. They didn't want to give up their cars, computers, and cell phones, but they did wonder. . .perhaps there was a lesson to be learned from the story of the big bad wolf?

Folktales often condense millennia of historical events into one short story, and this one is no exception. From the time of our emergence as *Homo sapiens*, perhaps as long as 195,000 years ago (McDougall et al. 2005; White et al. 2003), we have lived as hunter-gatherers, picking fruit from trees, foraging wild grains, digging for vegetables, and hunting animals both large and small. The power of our own experiences, "living in the now", and the effects of socialization that make "normal" simply what we are used to, can obscure the fact that the technocratic society we know and reproduce in today accounts for less than 1% of human history (Table 1). Only 1–2% of our biological make-up has evolved since the ape-human split between 5 and 7 million years ago, meaning that the vast majority of our genes are ancient in origin (Trevathan et al. 2008). There have been a few simple genetic changes since the third little pig and his wife invented agriculture around 10–12,000 years ago,[4] but the pace of cultural evolution is generally much faster than biological evolution. As a result, humans today occupy 35,000-year-old model bodies that are not particularly well adapted to the technocratic and industrializing cultures many of us live in (Armelagos et al. 2005; Eaton et al. 2002).

One of the primary contributions of evolutionary approaches in anthropology has been to remind us that *Homo sapiens* today still live in Paleolithic bodies adapted for the stressors faced by the first little pig. Current diet, lifestyle and reproductive patterns are drastically different from those that produced the selective pressure under which humans and human childbirth evolved. This mismatch in genes and culture promotes, accelerates and fosters certain diseases, especially those associated with changes in diet, reduced exercise levels and excessively interventive and mechanistic approaches to childbirth (Cheyney 2003, 2005; Trevathan et al. 1999, 2008). The notion that discontinuities between the conditions under which humans evolved and the conditions we live in today produce dis-ease is called the

Table 1 Human subsistence pattern timeline

Subsistence strategy	Emergence (years before present)
Hunting/gathering (99% of human history)	>100,000
Horticulture	12,000
Agriculture	10,000
Pastoralism	8,000
Industrialism	250
Technocracy	40

"discordance hypothesis", and it forms the foundation for a relatively new subfield of Medical Anthropology called Evolutionary or Darwinian Medicine. This approach examines health conditions generated by the discordance between evolved biology and current culture and attempts to propose evolutionarily sound solutions or treatments (Stearns et al. 2008; Trevathan et al. 1999, 2008; Williams and Nesse 1991).

In this chapter, we discuss not the diversity in the ways childbirth is treated or culturally elaborated around the world as highlighted in the rest of this volume, but instead, we focus our attentions on the biocultural features that unite *Homo sapiens* as a species. We review what we see as remarkable similarities in human birth mechanisms and cultural practices over time and argue that, pre-Industrial Revolution, these similarities were an outgrowth of our common evolutionary heritage as bipedal primates. With industrialization, there emerged a fear-based need to control nature that, along with the hegemony of biomedicine, again produced relatively uniform cross-cultural birthing practices, though the latter differ significantly from premodern norms. We examine this shift in the cultural elaboration of birth at the onset of the Industrial Era and discuss three areas where current obstetric approaches can benefit from holistic, cross-cultural and evolutionary perspectives. Our approach is co-evolutionary, meaning that we focus on dual-inheritance, or the identification of relationships between evolutionary biology and culture (Hewlett et al. 2002). We use "biocultural" and "co-evolutionary" throughout to emphasize the interactions between genes, culture, behavior and unequal relationships of power (Goodman and Leatherman 1998) that combine to produce the cross-cultural birthing patterns we see today.

The Biocultural Evolution of Modern Human Childbirth

The unique anatomical characteristics of the human pelvis and the complex delivery mechanisms they necessitate have occupied the research agendas of numerous evolutionary biologists (Lovejoy 1988; Rosenberg 1992; Rosenberg and Trevathan 1996; Trevathan 1987, 1988, 1997, 1999; Trevathan and Rosenberg 2000; Washburn 1960) since anthropologist Wilton Krogman (1951) first referred to childbirth as a "scar of human evolution". The difficulty of human childbirth relative to other primates (Stoller 1995) is thought to stem primarily from the so-called "obstetrical dilemma" or the conflicting evolutionary pressures on human pelvic shape that necessitate a relatively wide yet flattened pelvis to optimize energetically efficient muscular attachments required for bipedalism (Lovejoy 1988) on the one hand, and an open, rounded and spacious passageway for the birth of relatively large-brained infants on the other. These competing selective pressures have resulted in an obstetrical compromise that requires the passage of a fetal head that is nearly the same size or larger than the maternal pelvis. As a consequence, human babies, unlike their primate relatives, must maneuver through a series of complex orientations, called the cardinal movements or mechanisms of labor, as they travel through the changing diameters of the birth canal during delivery (Trevathan 1987, 1988,

1997, 1999; Trevathan and Rosenberg 2000) (Fig. 1). As a result, researchers, with few exceptions (Walrath 2003, 2006), have tended to see human birth as more painful and of longer duration relative to other mammals and to non-human primates, though for healthy mothers and babies, not necessarily more dangerous.

The comparatively difficult nature of parturition in our species has led researchers (Rosenberg 1992, 2003; Trevathan 1999) to hypothesize about the effects of our uniquely human obstetrical adaptations on changes in birthing behaviors and cultural norms over time. While non-human primates usually choose to give birth

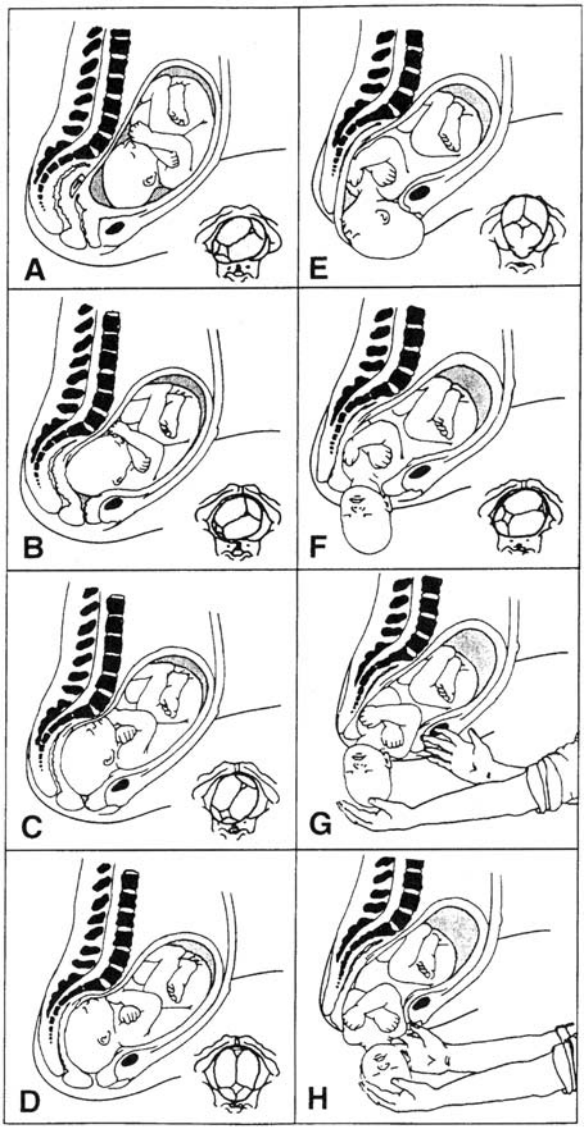

Fig. 1 Mechanisms or cardinal movements of human delivery in occiput anterior presentations (from Trevathan et al. 1999: 196). Used with the kind permission of Oxford University Press, Inc

alone and under the cover of night, human mothers almost always seek out assistance from female relatives, friends and/or experienced birth attendants. Biological anthropologist Wenda Trevathan (1997, 1999) reasons that at some point in human history, the benefits of assisted birth would have outweighed the safety of solitary delivery. She finds support for this argument in the cross-cultural observation that very few societies idealize unassisted birth, and in those that do, solitary birth may only be expected of women who have already had one or more babies and/or in mothers with uncomplicated deliveries.[5]

This condition of "obligate midwifery", or the uniquely human need for an attendant, Trevathan (1997) argues, evolved in response to three important differences between the mechanisms of birth in humans relative to other primates. First, because human babies almost always emerge facing away from the mother (a position called occiput anterior), it is difficult for the mother to reach down, as non-human primates do, to catch the baby and to clear an airway or remove the umbilical cord from around the infant's neck (Fig. 2). Secondly, modern humans give birth to secondarily

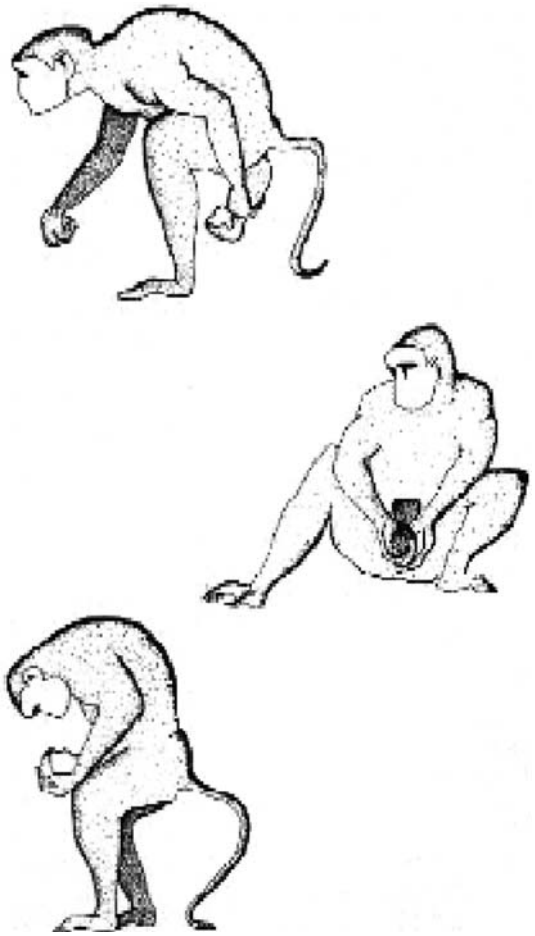

Fig. 2 Solitary, occiput posterior delivery in nonhuman primates (from Trevathan 1987: 91, Drawings by Bryan McCuller)

altricial[6] infants who require extensive care from the time of delivery. The relative helplessness of the human infant may be an additional reason why extra hands at a birth contribute to improved reproductive success, especially where mothers are exhausted by particularly long and difficult labors. Thirdly, Trevathan (1997) notes that powerful maternal emotions around labor and birth, including excitement, anxiety, fear, tension, joy and uncertainty, may have provided the evolutionary impetus for women to seek out support. The emotions of childbirth that encourage us to pursue assistance and companionship may be seen as biocultural adaptations to the physiological complications that result from bipedalism. Taken together, these three components of human birth may have contributed to the transformation of the process from a solitary to a highly social enterprise, setting humans on a trajectory toward social and cultural interventions in birth (Trevathan 1997).

The Cultural Elaboration of Childbirth: Biomedical Hegemony and the Technocratic Model

Enter culture... At some point in human history, perhaps around a million years ago with the appearance of large-brained *Homo erectus*, as Karen Rosenberg (1992, 2003) has proposed, human ancestors began to seek assistance, and in so doing, initiated the transformation of birth from a solitary, biological process to a biocultural and social one. The nuances of each culturally constructed birthing system – the dietary taboos, the ideal direction to face during delivery, the rituals considered necessary for a successful birth, the first words whispered into the ears of newborn babes – are limitless in their variety. However, a broad, historical view makes far more visible what the birthing systems of hunter-gatherers, horticulturalists, pastoralists, and agriculturalists have in common. Up until the Industrial Age just 250 years ago, the essential cultural practices associated with childbirth were relatively uniform. Women all around the world moved freely during labor, changing positions frequently as a method for managing the pain associated with labor contractions and cervical dilation. They ate and drank as they pleased within the cultural confines of what was considered acceptable, nourishing and safe for the mother and baby. They were attended by other women whom they knew well, in a place that was familiar to them – usually in their home or in the home of a female relative. They labored and birthed in upright positions using instinctive knowledge to expand the size of the pelvis, capitalize on gravity, and to maximize the efficiency of the abdominal muscles needed for pushing (Fig. 3). They developed artifacts like birthing stools and chairs, threw ropes over beams to pull against, birthed in flexible hammocks, and used poles for support in order to facilitate upright birth. Midwives knelt down in front of the upright mothers to receive their babies. Newborns were kept with their mothers for warmth, and long-term exclusive breastfeeding, co-sleeping, slings and other technologies kept baby and mother close during a year or more of external gestation (McKenna 2003; Montague 1971; Trevathan and McKenna 2003).

Fig. 3 Childbirth woodcut showing an upright birthing position in Europe during the Middle Ages (From Rosslin, Eucharius, *When Midwifery Became the Male Physician's Province: The Sixteenth Century Handbook: The Rose Garden for Pregnant Women and Midwives*, 1513 (Rosslin and Arons 1994: 31). (Book is out of print)

These basic cultural adaptations were normative until the huge social changes associated with industrialization moved birth from home to hospital and fundamentally changed the cultural face of birth, while doing little to reduce mortality and morbidity (Block 2007; Cassidy 2006; Wertz and Wertz [1977] 1989; Wilson 1995). In fact, it was the industrialization of birth, not birth itself, that gave women the fear of birth they have today (Cassidy 2006; Ulrich 1990; Wertz and Wertz 1989; Wilson 1995). Before the widespread acceptance of germ theory, the large, unsanitary lying-in hospitals of industrialized nations produced massive epidemics of puerperal or childbirth fever in the 18th, 19th and early 20th centuries (Crawford 1990; Leavitt 1986; Pollock 1990, 1997). Women died by the thousands in the lying-in hospitals of Europe and the United States until the germ theory of disease became accepted in the late 19th and early 20th centuries. As a result, massive precautions were taken in hospitals to prevent or decrease puerperal fever and other infections with a primary focus on attempts at sterilizing, standardizing and managing the birth process. Birthing mothers were painted from breasts to knees with orange iodine, forbidden to touch their own infants, and separated from them after birth, sometimes for days, even though more infections started (and still start) in nurseries than in babies kept with their mothers (Bertini et al. 2006; James et al. 2008; McDonald et al. 2007;

Nguyen et al. 2007). Ritualized procedures like enemas and pubic shaving were instituted under the premise that they would prevent infections. It has taken decades of research to show definitively that such practices do not in fact decrease rates of infection; they were implemented because of cultural categories and unfounded beliefs and are still common in developing countries (Cuervo et al. 2000; Baservi and Lavender 2001; Reveiz et al. 2007).

Over the last 40 years, the interventions that were introduced into the birthplace during industrialization have multiplied as societies like the United States have embraced high-tech, invasive solutions. As a result, much of our knowledge of unmedicated birth has been lost (Davis-Floyd 2001b). Physicians have been deskilled and often no longer know how to attend normal deliveries patiently. After all, why learn how to attend a vaginal breech birth when a cesarean is so much easier (for the physician), and often more lucrative, to perform? As birth became more medicalized around the world, in most places, midwives lost their prestige as the guardians and guides at normal deliveries, becoming subordinated to physicians and trained out of traditional practices toward more industrial and technocratic approaches to birth.

Yet a midwifery revival is taking place – as more and more midwives realize what is being lost, they are working to regain their positions as the keepers and researchers of knowledge about physiologic birth, speaking and practicing outside the dominant paradigm, holding open a conceptual space where technocratic birth may be challenged (Cheyney 2008; Davis-Floyd 1992, 1997, 2001a, 2003, 2004; Davis-Floyd and Johnson 2006; Downe 2004). Biomedical hegemony, or the power-laden rule by cultural consent that constructs some models as authoritative (Jordan 1997) and others (like the midwifery models of care) as fringe, retrogressive and uncivilized, means that today, birth looks quite similar all over the world, yet quite different from the kind of births the wives of the first four little pigs would have experienced.

Today, as a result of the transformation of birth during the industrial and technocratic eras, women are not allowed to eat, drink, or walk around during labor. Dressed in hospital gowns and hooked up to intravenous lines that often carry pitocin,[7] prophylactic antibiotics and narcotics for pain, they give birth flat on their backs or in semi-sitting positions. The most notable differences in the contemporary medical treatment of birth have little to do with the specific customs of particular cultures, but instead, are more closely tied to the vast disparities between resource-rich and resource-poor countries. In many high-income nations, although less so in Western Europe, women receive significantly more interventions with pharmaceuticals and technologies applied at a higher rate, in more attractive and humane hospital settings. In most low-income nations, women receive less expensive and often outdated interventions like shaving, enemas, and episiotomies without the benefits of expensive interior decorating. In both rich and poor countries, cesarean rates are rising exponentially without a concomitant improvement in maternal and fetal health outcomes (Althabe et al. 2006; Wagner 2006). Cultural differences and traditions have been largely obscured by the highly influential and heavily standardized biomedical hospital procedures now common in almost all industrialized and

industrializing nations.[8] Technology has tamed the big bad wolf, damming, controlling and homogenizing the raw, elemental power of birth. However, the rapidly rising rates of iatrogenic morbidity, and in some places, the rising rates of perinatal and maternal mortality due to excessive obstetrical intervention (Betran et al. 2007; Liu et al. 2007; Villar et al. 2006, 2007) suggest that perhaps we have lost something in the process. What does the big bad wolf still have to teach us?

Premodern Birthing Patterns and Why They Matter

Returning to the discordance hypothesis as applied to childbirth and the lens of Evolutionary Medicine, we have identified several areas where the conditions under which human childbirth evolved differ so substantially from the cultural norms enforced under technocratic models of birth that they require closer examination. Cross-cultural midwifery approaches, with their often-explicit rejection of the key components of the technocratic model, combined with their subversive application of time-honored behaviors and premodern traditions, provide an important point of comparison for critically examining contemporary, technocratic practices. The cross-cultural midwifery norms, for example, of encouraging movement in labor, upright pushing positions, the provision of intensive emotional support during labor, along with active encouragement of long-term breastfeeding and co-sleeping adaptive complexes are associated with significantly improved psychosocial and clinical outcomes for both mother and baby (McKenna et al. 1999; McKenna and McDade 2005).

We propose that midwifery and other low-tech, high-touch models of care that attempt to preserve "natural" (read those with a long history in human and non-human primates) birthing practices, produce the positive outcomes documented in so many studies, because they reduce the discordance between evolutionary biology and recent culture. The do this via a mechanism that promotes working with, rather than against, the evolved biological and psychosocial needs of human mothers (Anderson and Murphy 1995; Durand 1992; Fullerton et al. 2007; Janssen et al. 1994, 2002; Johnson and Daviss 2005; Murphy and Fullerton 1998; Rooks 1997; Schlenzka 1999). A closer examination of the premodern, reclaimed midwifery practices listed above, through the lens of Evolutionary Medicine, provides a clear, evidence-based template for the reform of contemporary, technocratic models of birth.

Unrestrained Movement in Labor Followed by Upright, "Physiologic" Pushing

Freedom of movement in labor used to be a cross-cultural norm, as it is in our closest living primate relatives, and the notion that women should lie in bed with their ability to self-comfort hindered by tubes and devices for fetal monitoring or intravenous

fluid delivery is relatively recent and one that makes little sense from an evolutionary perspective (Trevathan 1999). There is a large body of clinical research that documents the value of upright postures and mobility during the first stage of labor (the stage where the cervix dilates) for speeding and easing the complicated descent through the pelvis that is unique to humans (Bodner-Adler et al. 2003; Gupta and Hofmeyr 2004; Gupta and Nikodem 2000). Upright postures maximize the dimensions of the pelvis, while improving blood flow to the baby by preventing compression of the large vessels that run along the mother's spine, supplying the uterus with oxygenated blood. Women who deliver outside the technocratic model with midwives or holistic physicians tend to labor and push in upright positions in accordance with the physiologic urges that come with an unmedicated second stage (the stage where the baby moves down through the birth canal and is born) (Cheyney 2005; Davis-Floyd et al. 2009). Epidural rates of close to 80% in US hospitals (Declercq et al. 2006), however, prevent most women from utilizing the well-documented benefits of upright labor and pushing positions like squatting that optimize the curve of the human birth canal called the Curve of Carus (Figs. 4 and 5).

Technocratic models of pushing rely instead on a technique called "laboring down," meaning that epidurally administered medications are stopped or slowed during pushing so that mothers can regain enough sensation to feel and follow the physiologic urge to push. However, because the numbing and temporarily paralyzing effects of spinal or epidural anesthesia take a variable time to recede, women often begin to feel the urge to push and yet cannot move freely to maximize their efforts. This means that most women who deliver under the technocratic model do so in a semi-sitting position with restricted movement. Many will, of course, still go on to birth vaginally. However, for those women with a tighter fit, the inability to move into more upright pushing positions, as well as the reduced ability to feel the urge to push, may mean the difference between a vaginal and a surgical delivery. Non-physiologic pushing, we argue, partially explains the high rates of cesarean delivery and associated maternal and neonatal morbidity that characterizes modern, technocratic obstetrics (Althabe et al. 2006). [Editor's note: See the chapter by Travis Harvey and Lila Buckley that suggests that fear of childbirth pain is the prime motivation for cesarean in Chinese women.]

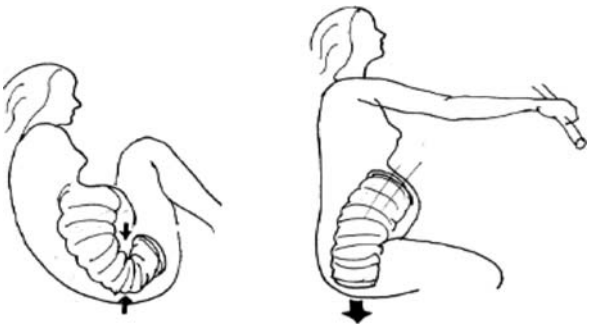

Fig. 4 Changes in the Curve of Carus with maternal positioning (from Sutton and Scott 1996: 55). This book is out of print

Fig. 5 Homebirth mother reclaiming a premodern birthing position, assisted by midwives, assisted by the comforting effects of water made possible by the high-tech, hot tub (Photo by Peter Gonzalez)

Obligate Midwifery, Continuous Labor Support and the Avoidance of "Intimate Strangers"

The intimacy of time-intensive, continuous labor support provided by birth attendants who are a part of a woman's community or have come to know her well over the course of her pregnancy may play an additionally decisive role in how human birth unfolds (Hodnett et al. 2005). The calming presence of a familiar midwife or other companion may, for example, help to mitigate levels of stress hormones like cortisol and epinephrine that are known to inhibit the effects of oxytocin – the hormone that stimulates labor contractions (Jolly 1999). The complex evolutionary relationships between hormones produced during fear and/or pain responses and those that stimulate labor combine to produce what have been called the "white coat" and "weekend" effects in humans and in non-human primates, respectively. These effects are characterized by the lessening or complete cessation of labor contractions when women and other primates feel afraid or anxious in response to being observed by doctors ("white coats") and/or researchers. Where women experience a decrease in labor contractions in response to fear or uncertainty (compensated for in

the hospital by the administration of pitocin), non-human primate mothers who live in captivity are often able to delay delivery until their attendants leave the holding facility (hence the "weekend" effect).

The release of adrenaline and cortisol in response to fear and stress, and the consequent slowing of labor, may have served an adaptive function in the past because such mechanisms prevent mammals – humans included – from delivering fragile infants under conditions of predatory danger. However, fears of pain, the hospital, specific procedures (like the placement of an IV catheter), or even just the feeling of self-consciousness that can come with laboring in front of "intimate strangers", and the contraction-dampening effects of stress hormones are less beneficial in a technocratic environment where delivery must occur according to a relatively rigid time schedule to be considered "normal". If human childbirth evolved under conditions of obligate midwifery as proposed by Trevathan, and with the underlying assumption that we still occupy Paleolithic bodies, then midwifery and other holistic models of care that focus on trust, building relationships, and reducing maternal stress hormones through intensive emotional and psychosocial support during labor partially explain the excellent outcomes associated with homebirth and other alternative models of care cited above. Current technocratic approaches vastly underestimate the evolved psychosocial and physiological needs of women in labor.

Low Intervention Birth – Long-Term Breastfeeding – Co-Sleeping Adaptive Complex

The intimacy and connectedness that facilitate human childbirth have also been extended and applied to early parenting behaviors and mother-baby coevolutionary patterns among primates. James McKenna (2003), an evolutionary biologist who focuses on early infant sleeping, breastfeeding and breathing patterns, has examined contemporary Western childrearing practices like solitary sleeping and scheduled nursing from the perspective of evolutionary medicine. His work challenges the basic assumption that solitary sleep should be considered "normal" for human babies, concluding instead that an understanding of evolutionary biology and cross-cultural and cross-species comparisons suggests that there are benefits to parent-infant co-sleeping and long-term, on-demand nursing (McKenna and McDade 2005; McKenna and Mosko 2001). These benefits include the promotion of early bonding, growth and neurological development in the newborn and, perhaps most importantly, the regulation of breathing patterns in altricial infants especially during stages of deeper sleep. Safe co-sleeping and nighttime breastfeeding may also be protective against Sudden Infant Death Syndrome (SIDS) in some contexts. McKenna argues that long-term breastfeeding and parent-infant co-sleeping are part of an adaptive complex for primates that evolved to allow for intensive parental investment, social learning and rapid postnatal brain growth in altricial infants (McKenna et al. 1999).

A growing number of birth and early parenting activists around the world are beginning to question the decline in continuous contact in childrearing that characterized parenting practices until four decades ago, when "plastic babysitter"

technologies like monitors, swings, cribs and car seats began to replace continuous physical contact (DeLoache and Gottlieb 2000; Hrdy 1999; Small 1999, 2001). Midwives and holistic pediatricians who value the external gestation period described by McKenna (2003) and others (Montague 1971; Trevathan and McKenna 2003) argue that more high-touch, alternative parenting practices often produce babies that are healthier (emotionally and physically) than bottle-fed, solitary-crib-sleeping and stroller-carried infants that are the norm under the technocratic paradigm.

Because we see birthing behaviors as inextricably linked to mother-baby co-evolution and early parenting adaptations like exclusive, on-demand breastfeeding and sensory proximity of mother and baby during sleep, we propose an extension of McKenna's (2003) breastfeeding-co-sleeping adaptive complex to include low-intervention, physiologic birth as an approach that helps to decrease the discordance between human biology and our technocractic culture. The alertness of unmedicated infants, combined with the evolutionary and premodern cultural norm of keeping the mother-baby-unit intact in the hours immediately following birth, facilitates the cascade of hormonally regulated mother-baby bonding that promotes exclusive and long-term breastfeeding (Klein et al. 2001 and Kroeger and Smith 2004) (Ludington-Hoe et al. 1991a,b; McKenna 2003; Odent 2007; Trevathan and McKenna 2003).

Conclusion

We have reviewed what we see as remarkable similarities in human birth mechanisms and cultural practices over time and argued that, pre-Industrial Revolution, these similarities were an outgrowth of our common evolutionary heritage as bipedal primates. With industrialization, there emerged a fear-based need to control nature that, along with the hegemony of biomedicine, again produced relatively uniform cross-cultural birthing practices, though the later differ significantly from premodern norms. While we acknowledge the multiple culturally-mediated differences in the ritual treatment of birth, we are also struck by the remarkable similarities in premodern birthing practices in hunting-gathering, horticultural, agricultural, and pastoral societies. These births were characterized by freedom of movement, upright positions, midwives (or female relatives) in attendance, and breastfeeding and co-sleeping during the external gestation period. Our common evolutionary heritage as bipedal primates and the normal, instinctive physiology of birth were relatively honored in premodern societies.

In striking contrast, birth in the industrial and technocratic eras, while very similar cross-culturally, looks very different from what our the first four little pig mothers would have experienced – women flat on their backs, hooked up to intravenous lines and monitors and cared for by "intimate strangers". This transformation away from what evolutionary biology might predict increases the discordance between the evolved physiology of human childbirth and contemporary cultural interventions. Using the lens of Evolutionary Medicine, we have identified several areas

where premodern birthing and childrearing patterns can provide a corrective to current technocratic approaches that, we argue, do little to honor the Upper Paleolithic bodies we occupy. These areas include:

- structural-and institution-level changes needed to facilitate unrestricted movement in labor
- upright physiologic positions for pushing
- continuous labor support
- increased provider-mother connection through continuity of care
- removal of cultural and protocol constraints that inhibit the honoring of human external gestations through exclusive, long-term, on-demand nursing and technologies like co-sleepers and slings that increases vital, tactile stimulation of our infants.

Evolutionary approaches, while certainly not without limitations in that they carry their own set of contestable presuppositions, are valuable in as far as they provide yet another way of critically examining birth in cultures that supervalue science. We encourage biomedical researchers and clinical practitioners to consider not only the proximate or immediate contexts of an individual woman's pregnancy, but also the larger, evolutionary history of our species that has shaped our biology and, to some extent, our culture and behaviors. In addition, we advocate a deeper and more explicit acknowledgment of the fact that recent human evolution has not unfolded within a power vacuum. Rather, the influences of industrialism, technocracy, and gendered power inequities have generated a biomedical hegemony that has been perpetrated around the world through both colonialism and the maladaptive imitation of what appears to be "best" because it is modern. Adjusting our critical lens to see birth within the larger and more holistic contexts of cross-cultural and

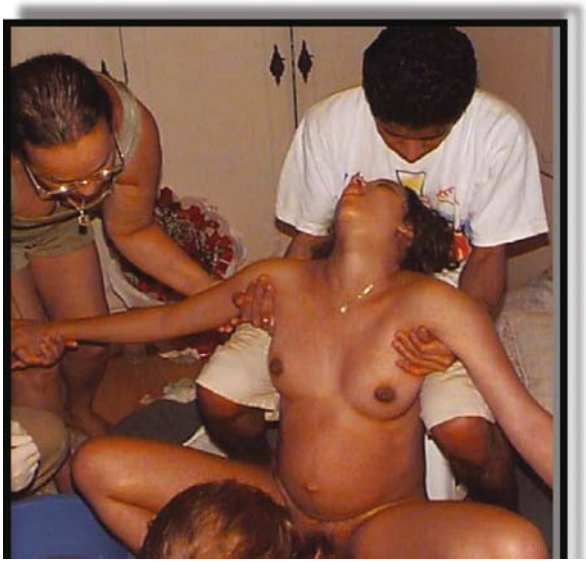

Fig. 6 A midwife-attended birth in Porto Alegre, Brazil, 2007 (Photograph by Ricardo Jones, MD)

evolutionary perspectives, we can combine the best of what technological innovations have to offer, while also embracing the wild beauty and instinctive power of the big bad wolf in the birthplace (Fig. 6).

Notes

1. The story of the Three Little Pigs, for those who don't know it, goes something like this: There were 3 little pig brothers and they all set out to make their way in the world. The first built a house of straw, the second a house of sticks, and the third a house of bricks. Eventually the big bad wolf came around. He saw the first house and said, "I'll huff and I'll puff and I'll blow your house down." He was able to blow down the houses of the first two pigs. But the third, stronger house withstood the wolf's huffing and puffing, and the third pig was able to trap the wolf and kill him. The moral, probably, was that those who plan ahead and act upon those plans will prosper.
2. Davis-Floyd has proposed in many of her public presentations that the original story of the three little pigs, which is very ancient, was created by agriculturalists as a way of expressing their belief in the value of their subsistence strategy and their sense of superiority over all things "savage" and untamed by "civilization".
3. See Davis-Floyd 1994, 1996, 2001a,b, and Davis-Floyd and St. John 1998.
4. Genetic changes since the agricultural revolution include the malaria/sickle cell anemia balanced polymorphism, lactase persistence and vitamin D synthesis in Europeans (Allison 1954; Beall and Steegmann 2000; Durham 1991; Katz 1987).
5. The Kalahari Ju/'hoansi, for example, value unassisted birth, though there is some disagreement about how many women actually achieve this cultural ideal. Some sources argue that mothers more commonly give birth surrounded by female relatives and friends (Konner and Shostack 1987; Shostack 1981), while Biesele (1997) has reported that solitary birth occurs not infrequently and that it is an important goal of Ju/'hoansi women as a means of "proving oneself," as it also is for the women of Misima Island, Papua New Guinea (Byford 1999). Regardless, as Rosenberg and Trevathan (1996) assert, it is probably safe to generalize that the majority of cultures make some provision for assistance at birth.
6. Human babies are referred to as secondarily altricial. This means that although most mammals are precocial, meaning infants are born in a state that is relatively mature compared to the adult condition (think, for example, of the giraffe that gets up and walks around only minutes after birth), human babies have reverted back to the more primitive condition of being relatively altricial or helpless and immature relative to the adult condition at birth (Hrdy 1999). This pattern is viewed as a necessary compromise to allow relatively large brained infants to be born through a birth canal adapted for upright walking. As a result, human babies undergo a kind of extra-uterine gestational development where rapid brain growth continues for 12 months after birth. In precocial mammals and in nonhuman primates brain growth proceeds rapidly until birth and then slows dramatically after delivery. The extension of human brain growth postnatally effectively gives humans a 21-month gestation (9 months in utero, 12 extra-uterine) (Lewin and Foley 2004).
7. Pitocin is the artificial version of oxytocin – the hormone that stimulates labor contractions. Pitocin is used to induce and augment labor artificially in 47% of births in the US (Declercq et al. 2006) and is increasingly commonly used even in the remote rural clinics of the developing world.
8. New Zealand, the Netherlands and the Scandinavian countries are all exceptions. These nations have rejected many of the routine technological interventions in childbirth advocated for in the United States and, instead, have embraced more holistic and midwifery model approaches. They also enjoy significantly improved maternal-child health outcomes relative to the US with fewer dollars spent per capita (DeVries 2004; DeVries et al. 2001; Wagner 2006).

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Breastfeeding and Child Spacing

Rebecca Sundhagen

Breastfeeding is an inexpensive, natural source of nature's perfectly defined food for infants. In addition to optimal nutrition, breastfeeding provides infants with natural immunity to childhood diseases through antibodies in the mother's milk, thereby increasing health and decreasing mortality. If both are in good health, breastfeeding can provide an important bonding experience between mother and child. But breastfeeding has another benefit as well: suppressing ovulation and delaying the return of menstruation, which effectively acts as a natural contraceptive to increase child spacing. Exclusive breastfeeding is a very active component of culture in many countries, where it is often used to lengthen the time between births of successive children.

Defining Ecological Breastfeeding: The Lactational Amenorrhea Method (LAM)

Following any pregnancy, new mothers do not immediately experience ovulation or menstruation. This period of amenorrhea following a birth varies. For non-lactating mothers, the time to first ovulation is generally 30–90 days. For mothers who breastfeed their infants exclusively, postpartum amenorrhea (PPA) can be extended for 6–18 months (Cable and Rothenberger 1984; Sunil and Pillai 2001). To provide extended birth regulation, certain conditions must be placed on breastfeeding. In 1988, participants at a conference on lactation infertility in Bellagio, Italy, defined the Lactational Amenorrhea Method (LAM) for family planning: mothers who are fully or nearly fully breastfeeding and who remain amenorrheic (have an absence of periods) have a risk of pregnancy of less than 2% in the first 6 months postpartum. In 1995, these same experts again gathered in Bellagio to revise and update their consensus. Their findings changed on two points: the condition of full or nearly

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full breastfeeding may be relaxed, and the contraceptive effects of LAM may be extended for more than 6 months (Bellagio Meeting Participants 1996).

When the World Health Organization (1999) completed a seven-country study of breastfeeding and lactational amenorrhea, their results upheld the 1988 Bellagio Consensus for pregnancy protection when breastfeeding exclusively to 6 months. For study participants in China, Guatemala, Australia, India, Nigeria, Chile, and Sweden who remained amenorrheic to 6 months postpartum, pregnancy rates ranged from 0.8 to 1.2%. This low pregnancy rate corresponds to the rate achieved by other non-permanent contraceptive measures. Pardue (1994) sheds light on the reasons for the return of menstruation commonly occurring at 6 months. This is the age when infants begin sleeping through the night, consuming more supplements and juice, and spending less time at the breast for each feeding. With less combined time spent nursing, nipple stimulation is decreased, leading in turn to the return of menstruation.

In a study conducted in nine different countries (Mexico, Thailand, Egypt, Pakistan, Philippines, Canada, Australia, and England), Kennedy and Visness (1992) found that adequate ovulation (a prerequisite for pregnancy) occurred in 13.8% of mothers who were amenorrheic at 6 months and 37.5% of mothers who remained amenorrheic at 12 months postpartum. Even with adequate ovulation, the chance of achieving pregnancy in a given month was still 25%. The results in this study yielded pregnancy rates of 2.9% at 6 months and 5.9% at 12 months postpartum for mothers who were still amenorrheic. This corresponds well to the 2% pregnancy rate suggested at 6 months by the Bellagio consensus. The authors concluded that LAM is not a replacement method to be relied on entirely for birth spacing, but that it can be very useful for deciding when to introduce other contraceptive methods.

In a large study of breastfeeding Australian women, Short and Lewis (1991) reported that breastfeeding significantly reduced chances of conceiving during the first 6 months (and even up to 12 months) for mothers who breastfed, even with supplements introduced, as long as the mothers remained amenorrheic. Once menstruation returned, the mothers would then require alternate forms of birth control to prevent conception and lengthen the interchild interval. In India, Singh conducted two studies to determine the relationship of the length of PPA to duration of exclusive breastfeeding. Postpartum amenorrhea is defined as the length of time between the birth of a child and the return of menstruation. Both studies indicated that length of PPA was directly related to length of exclusive breastfeeding, but that PPA could not be extended beyond a certain point, generally found to be 6 months (Singh 2007, 2008).

While mothers may start chemical or other unnatural contraceptives at 6 months postpartum for continued protection from pregnancy, Geerling (1995) suggested a combination of LAM with one of two natural family planning methods for optimum birth spacing. The methods he proposed were the ovulation method (checking cervical mucus daily) or the symptothermal method (crosschecking cervical mucus and basal body temperature daily). The benefits mentioned by Geerling for LAM and either of these natural family planning methods include low cost, increased

communication for the couple using the method, and no side effects or risks. The effectiveness of the two methods is limited by the compliance of the couples using them, but with optimum compliance they yield a pregnancy rate of no more than 1.0 in 100 women-years (2.0 and 3.0 per 100 women-years with sub-optimal compliance for the symptothermal and ovulation methods, respectively). These rates compare very favorably to those offered by most reversible contraceptive methods. Thus, natural methods could have extensive application in countries where pregnancy testing and contraceptives are not widely available, offering a smooth and inexpensive transition from LAM to alternate natural child spacing. Natural methods also have the benefit of being accepted by all world religions as supporting the sanctity of life.

In their 1996 and 2006 *Population Reports*, Johns Hopkins University advised that mothers might extend the effectiveness of LAM beyond 6 months with optimal breastfeeding. This is defined as "a high-frequency pattern of breastfeeding, with full or nearly full breastfeeding, and with breastfeeding before each supplemental feed" (1996: 26). When meeting these conditions, the authors suggested that a mother may have protection from LAM for up to 1 year postpartum, with nearly the same risk of pregnancy as other reversible contraceptive methods. The authors also pointed out that LAM, while protecting against pregnancy, does not offer any protection against sexually transmitted diseases, such as HIV.

Kippley and Kippley (1996) define the pattern of high frequency and full breastfeeding as ecological breastfeeding. Mothers in Western cultures tend to use cultural breastfeeding, which allows supplementation with bottles of liquids (including breast milk and formula) and solids (including cereals and baby foods). Cultural breastfeeding may also be exclusive breastfeeding, feeding nothing but mother's milk, but it relies on pumping and bottle feedings rather than feeding at the breast only. For full LAM protection, the Kippleys insist that mothers must use ecological breastfeeding, with no pumping or bottles, a standard that may be difficult for many mothers to meet.

However, both methods of breastfeeding can offer better child spacing protection than not breastfeeding at all. In a 1986 study of 284 American mothers, Kippley (1999) calculated an average PPA of 14.5 months for mothers using ecological breastfeeding, versus 10.3 months for those using cultural breastfeeding. Jackson (2005) supplies less strict criteria than Kippley for LAM to be an effective contraceptive method: at least 6 episodes of breastfeeding per day that total 65 minutes may be enough to offer protection against postpartum pregnancy. The World Health Organization's multi-country study (2000) provided additional evidence that the total length of time spent breastfeeding in a 24-hour period is strongly correlated to the duration of PPA.

While ecological breastfeeding may not be standard practice for many modern Western mothers, ecologic breastfeeding is a part of the policy of La Leche League, an organization dedicated to promoting unrestricted breastfeeding through support groups and breastfeeding education for mothers. Cable and Rothenberger (1984) surveyed La Leche League mothers in the United States and found that frequency of suckling had the greatest impact on return of menstruation after childbirth.

Non-lactating mothers experienced an average of 2–4 months of amenorrhea postpartum, while 92% of the La Leche League mothers who participated in the study with infants aged 5–16 months had not yet experienced menstruation. These authors concluded that exclusive breastfeeding does offer a means of contraception and control over birth spacing, and that healthcare professionals need to pay more attention to the implications of ecological breastfeeding for the mother.

Additional Benefits of the Lactational Amenorrhea Method

Along with increasing the sense of closeness between a nursing mother and infant, LAM offers financial, health and social benefits. Breastfeeding is accepted by all world religions, and actively encouraged by many religions. The choice to breastfeed also fits well with cultural expectations regarding good motherhood or good parenting.

Financial benefits of LAM include low-cost contraception and nutrition. This is especially beneficial in developing nations, where artificial contraception is expensive, not readily available, or not accepted due to religious beliefs (Kuti et al. 2007). The cost savings realized by breastfeeding can be significant, especially in developing areas of the world. Infant formula for 1 year may cost as much as USD 1000 in the United States (Phelan 2006). Cost of formula in developing nations runs a wide range, from USD212 per year in India (USD102 in 1984 dollars) to USD580 in Ethiopia (USD280 in 1984 dollars) (Simopoulos and Graves 1984).

Child spacing can also have economic ramifications for children later in life. In a 1995 study of high school students from 1,000 American high schools and their parents over a 6-year period, Powell and Steelman (1995) were able to demonstrate that child spacing had a significant impact on financial resources available to each child later in life. When spacing was increased, parents had more financial capital to bestow on each child. For close spacing, each child received less financial support from the parents when reaching young adulthood.

Infants who are breastfed are less likely to suffer from obesity, diabetes, ear infections, sudden infant death syndrome (SIDS), allergies, or asthma. They also tend to have better verbal skills and stronger eyesight later in life (Phelan 2006). Mothers who breastfeed are less likely to develop breast cancer, while breastfed infants are less likely to have respiratory illness, gastrointestinal illness, eczema, allergies, asthma, and food intolerances (Raine 2003). Infants who are breastfed, even for a short interval, are less likely to be overweight as children. The longer the infant is breastfed, the greater the effect on the child's weight later in life, and the benefit extends through adolescence (Jordan-Welch and Harbaugh 2008). Mothers who breastfeed are also less likely to suffer from postpartum bleeding.

In general, breastfeeding combined with postpartum abstinence provides for a child spacing of 3 years (Van Esterik 2002). Smith (2006) advocated the benefits of allowing 3–5 years for child spacing in developing countries. For a 3-year spacing, infants have a 2.5 times higher survival rate. For a 2- to 3-year spacing, mothers are 1.3 times less likely to experience anemia, 1.7 times less likely to experience third trimester bleeding, and 2.5 times more likely to survive childbirth. With spacing

less than 2 years, problems include depleting the mother's resources, lowering the mother's milk supply, and delivering infants prematurely. With spacing less than 18 months after a cesarean delivery, the risk of uterine rupture with the subsequent pregnancy is 3 times higher. In the United States, very short birth intervals (0–6 months) have been related to increased domestic violence and double the risk of severe postpartum depression.

Barriers to the Lactational Amenorrhea Method

There are a variety of factors that may make it difficult for a mother to use ecological breastfeeding. These factors include lack of partner or family support, physical problems with breastfeeding, lack of knowledge or encouragement, aggressive marketing by infant formula companies, and socioeconomic status. Breastfeeding also has to compete with the increasingly important sexual roles females are expected to fill.

The presence of women in a support structure, whether relatives or friends, is a key factor enabling a mother to breastfeed. The percentage of mothers who choose to breastfeed increases with the number of friends in her social network that also breastfed their infants (Simopoulos and Graves 1984). Artificial peer support, in the form of hospital- and community-based breastfeeding promotion programs, have been successful in raising breastfeeding initiation and duration rates in countries from Brazil to the United Kingdom (Lutter et al.1997; Ahmed et al. 2006). Seeing relatives or friends breastfeed successfully tends to increase a mother's chance of breastfeeding success (Raine 2003).

Some mothers – as many as 4% – are physically unable to breastfeed, due to nipple inversion, pain, soreness, infection, or lack of milk supply (Simopoulos and Graves 1984). Other barriers to breastfeeding include mother's illness, risk of transmitting disease to the infant, or use of medications that are contraindicated for breastfeeding. Stanback and Reynolds (2002) highlighted a problem in areas of the world where pregnancy testing is not available: mothers in some countries who request birth control at 6 months postpartum may be denied contraception until menses resumes, out of fear that they may be pregnant, even when using LAM. When healthcare workers in Kenya were educated on the effectiveness of LAM as a contraceptive method and trained in alternative methods of determining pregnancy, the rate of clients being rejected for contraception was reduced from 34% to 4%. This helped provide a seamless transition for Kenyan mothers from lactational protection to other methods of contraception.

With the ready availability of chemical contraception in the Western world, mothers can easily choose not to rely on breastfeeding for child spacing. Compounding this is the fact that lack of knowledge of LAM is common among Western healthcare providers. In the United States, few healthcare professionals are knowledgeable about natural family planning and LAM, having received little or no training about these practices in their professional education. Current nursing textbooks may contain a paragraph or two defining natural family planning, but are unlikely to contain any information about LAM. Fehring (2003) suggested that LAM and natural family planning are a perfect fit for holistic nursing practice; yet his 1995 study of

166 health professionals found that 53% of nurses and 44% of doctors would not recommend that their clients use natural methods for avoiding pregnancy. Fehring stressed the importance of adding information on LAM and natural family planning to the healthcare professionals' education and listed several training resources for healthcare practitioners.

Gottesman (2007) reported that breastfeeding practice declined in the US following WWII, due to the mobility of families and the breaking up of extended family networks. Without breastfeeding advice and knowledge from older women in the family, new mothers had to rely on medical advice. The two decades after the war saw an increasing focus on replacing breast milk with infant formula. By 1956, less than 1 in 5 American mothers were breastfeeding at time of hospital discharge after giving birth. With the push against formula marketing and efforts by such organizations as the La Leche League, US breastfeeding rates now vary from 55% to 75% at time of hospital discharge, with 30–50% continuing 6 months later. Van Esterik (1996) argued that declining breastfeeding rates in the western world are largely a result of infant formula marketing campaigns, running the range from media advertisements to free samples of formula, bottles, and nipples handed out to new mothers by their primary care providers.

Income level and education can be seen as a barrier to breastfeeding, as breastfeeding rates tend to decline with increasing income and education level (Simopoulos and Graves 1984). With infant formula costing as much as USD 1000 per year in the United States, breast milk may be perceived as a poor man's food, leading more affluent American mothers to shun this source of nutrition. Immigration also plays a role in breastfeeding rates. First generation immigrant mothers may be more eager to give infants a bottle, a result of decidedly strong formula marketing campaigns, than to pursue the breastfeeding traditions of their homelands (Phelan 2006). The simple fact that many mothers are required to return to the work force immediately following the birth of a child can make breastfeeding an unreasonable option. Even if the employer offers privacy for breastfeeding or pumping, this increases the difficulty to the nursing mother.

Use of the Lactational Amenorrhea Method Around the World

A study conducted in ten countries (England, Germany, Italy, Mexico, Philippines, Sweden, United States, Indonesia, Nigeria, and Egypt) found a pregnancy rate among LAM users of 1.5% and a satisfaction rate among users of 84%. Negative aspects cited included inconvenience of frequent feedings, night feedings, and worry about pregnancy. Positive factors cited by the mothers were low cost, benefits to the infant's health, convenience, and naturalness (Alan Guttmacher Institute 1998). Other benefits of using LAM were pointed out by researchers at a university in Cairo, Egypt, who found LAM to be an effective method for mothers who needed immediate control over birth spacing. Positive effects of LAM for the mother included simplicity, low cost, and reduction in postpartum bleeding. Benefits to the infant included immunity to infection, optimum nutrition, and decreased exposure to

pathogens that may be present in drinking water and formulas (Health & Medicine Week Editors 2004).

Gottesman (2007) surveyed mothers of different ethnic backgrounds in the United States to determine breastfeeding rates at birth (and 6 months). His results indicated that 82% (47%) of Asian infants; 79% (42%) of Hispanic/Latino infants; 76% (42%) of white infants; 67% (33%) of Native American infants; and 60% (27%) of African American infants are breastfed.

Research on LAM effectiveness has also been done outside the Western culture. In the !Kung tribe in southern Africa, where infants average 2 minutes of suckling every 15 minutes, median birth spacing is 44 months (Couple to Couple League International 1991). In Nigeria, a study at two maternity centers showed a positive correlation between duration and frequency of breastfeeding and length of PPA. For the average breastfeeding duration of approximately 16.5 months, the mothers experienced an average of 12.5 months of amenorrhea. The authors also found that frequency of suckling was more important than duration of suckling, theoretically due to the effect of prolactin inhibiting estrogen and progesterone secretion in the mother, delaying menstruation (Ojofeitimi 1982).

Mothers in Uganda report believing breastfeeding should occur for 2–3 years; in practice, most stop breastfeeding at 18 months with supplementary nutrition added at 4–6 months. Most Ugandan mothers do not use infant formula due to its high cost and low availability (Pool, Nyanzi and Whitworth 2001). Hull and Simpson (1985) reported on breastfeeding traditions in several nations. Among the Amele tribe in Papua New Guinea, breastfeeding rates are nearly 100%, as purchasing infant formula requires a medical prescription. Iranian mothers view breastfeeding as a basic infant right, while Thai mothers believe they are improving their karma by giving their babies the breast. Mothers in Mexico see breastfeeding as proof of sacrifice for their children, while Kenyan mothers prefer breast milk to cow's milk due to beliefs in hot and cold food classification. Among many cultures – such as Iran, Java, and Papua New Guinea – there is a belief that colostrum [a fluid in the breasts that nourishes the baby until the breast milk becomes available] is unhealthy for the infant and should be discarded, despite its high caloric and immunologic properties.

Conclusion

From the research cited above, it is clear that using ecological breastfeeding provides excellent contraceptive protection for a minimum of 6 months postpartum. When combined with other natural indicators of fertility, the contraceptive effects of LAM may be extended to 12 months and beyond. For maximum protection, breastfeeding must be frequent and exclusive. The method is simple, effective, and inexpensive, with no harmful health effects for mothers and several beneficial effects for infants. These qualities make LAM ideal for use in the cultures of developing nations.

Using ecological breastfeeding for natural child spacing requires a shift in traditional views of breastfeeding currently held by Western mothers. While they

Table 1 Breastfeeding traditions in selected cultures

Country	BF length: belief	BF length: practice	PPA duration	Avg. child spacing
Uganda[1]	24–36 months	18–24 months		
!Kung (Kalihari Desert, Southern Africa)[2]				44 months
Nigeria[3]		16.5 months	12.5 months	
Muslim[4]	24 months			
Jewish[4]	24 months			
India		23 months[6]	12 months[6]	33 months[5]
Kenya[6]			9 months	
Philippines[6]			8 months	
Developing nations[5]			18 months	
France (restricted BF)[5]			58 days	
Papua New Guinea[7]				30 months

[1] Pool et al. (2001)
[2] Couple to Couple League International (1991)
[3] Ojofeitimi (1982)
[4] Chertok et al. (2004)
[5] Cable and Rothenberger (1984)
[6] Sunil and Pillai (2001)
[7] Hull and Simpson (1985)

Table 2 Multi-country study of Breastfeeding (BF) and Postpartum Amenorrhea (PPA)[1]

Country	Full BF duration (days)	Partial BF duration (days)	PPA duration (days)
China	150	279	273
Guatemala	25	182	191
Australia	99	234	273
India	68	142	103
Nigeria	21	213	211
Chile	34	163	159
Sweden	98	208	239

[1] World Health Organization (2000)

may recognize the benefits of breastfeeding, new mothers may not be prepared for the frequency and exclusiveness of breastfeeding required for the protection from pregnancy that LAM can offer. To promote this method to clients, healthcare professionals must be educated on its use. Some success has already been seen with the implementation of social support programs to promote the use of ecological breastfeeding. Making information available to new mothers about LAM will allow them to make the decision that offers infant bonding, optimal infant nutrition, and natural protection from pregnancy. When understood and used appropriately, ecological breastfeeding can and does provide for natural child spacing in a variety of cultures.

Table 3 Percentage of mothers Breastfeeding (BF) and reporting Postpartum Amenorrhea (PPA) in selected cultures

Country	BF – birth (%)	BF – 6 weeks (%)	PPA – 6 weeks (%)	PPA – 3 months (%)	BF – 6 months (%)	PPA – 6 months (%)
France[1]	40					
Great Britain[2]	66	43				
Nigeria[3]	100			86	97	63
Nigeria (Onitsha)[4]	100	100	34		98	30
N. Ireland[2]	45	25				
Norway[2]	98					
Scotland[2]	55	36				
United States[5]	55–75				30–50	

[1] Van Esterik (2002)
[2] Pain et al. (2001)
[3] Kuti et al. (2007)
[4] Egbuono et al. (2005)
[5] Gottesman (2007)

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Culturally Diverse Women Giving Birth: Their Stories

Lynn Clark Callister and Inaam Khalaf

Importance of Birth Narratives

Sixteen-year-old Anna gave birth to her second child in the Salvation Army Clinic in the Ashanti Province of Ghana, having lost her first. She thanked God for safe passage for herself and for the child. "Whether I cried or shouted I was going to give birth to the baby, so there's no need for us to cry or shout. All that I needed to do was to keep calm and be praying in my mind to God so that He could help me to have a safe delivery." Birth stories are a means of accessing the social context and meaning of bearing and rearing children in women's lives. Birth stories document the profound experiences of culturally diverse childbearing women.

The benefits of sharing birth stories include: the opportunity to integrate a pivotal life event into the framework of a woman's life; the opportunity to share a significant life event; the opportunity to discuss fears, concerns, "missing pieces," or feelings of inadequacy or disappointment with the birth experience; and the opportunity for the woman to gain an understanding of her own personal strengths and competencies (Callister 2004).

Birth is perhaps the most bittersweet experience women can experience in life – an experience filled with both pain and joy. Birth is ritualized by every culture, and it is considered one of the most significant rites of passage in family life (Davis-Floyd 1986). [Editor's note: See chapter by Davis-Floyd in this volume]. Having an interested interviewer listen to a woman share how she feels about her birth experience can be therapeutic. The second US national survey of childbearing women, *Listening to Mothers II*, documents the importance of listening to the voices of women to inform care of childbearing women (DeClercq et al. 2006). The importance of listening to the voices of women is becoming increasingly validated (Malterud 2006). Women give birth within their own socio-cultural context, so listening to the voices of culturally diverse women is essential (Callister 1995).

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Review of the Literature

Qualitative descriptive studies have been conducted on the meaning of birth to cross-cultural groups of women from countries such as Argentina and Armenia (Amoros and Callister in press), Australia (Callister et al. in press), China (Kartchner and Callister 2003; Callister and Diehl in review), The Netherlands (Johnson et al. 2007), Finland (Callister et al. 1996, 2001; Callister et al. 2000), Ghana (Wilkinson and Callister in press), Guatemala (Callister and Vega 1998), Russia (Callister et al. 2007), South Africa, and Tonga. There have also been studies on Hispanic immigrant women (Hazard et al. 2009), Jordanian Muslims (Khalaf and Callister 1997), Mexican immigrants (Callister and Birkhead 2007), and on Mormon and Orthodox Jewish women (Callister 1992; Callister et al. 1999; Semenic et al. 2004).

Themes in Birth Narratives

The Importance of Following Cultural Proscriptions Associated with Childbearing

In some cultures, proven fertility is essential. Leyla, a first time Muslim woman said, "People usually start asking you after the first month of marriage whether you 'save anything inside your abdomen,' meaning, 'Are you pregnant yet?' So is the nature of life. I got pregnant after 2 months of marriage." This is also true for Ghanaian woman, as one said, "If [women] have the capacity to give birth, they should give birth because giving birth to children is good – what God loves." Estella, a Hispanic mother said, "It's a gift to be a mother. It's your purpose as a woman to be a mother. Therefore, when you feel the pains and all that accompanies having a baby, to be a mother compensates for all this."

In Eastern European countries where the birth rate has been low and abortion rates the highest in the world, special attention is given to women who are bearing children. One Armenian mother, Zaruchi, said, "The best thing about being pregnant is being the center of attention for everyone. In the family, at work, and in society everyone is very careful with you and they try to be near you."

There are rich traditions associated with bearing a child and giving birth. During pregnancy in many cultures it is believed that the other's emotional state affects the unborn child. Mei Lee, a Chinese woman said, "I can't see any influence on my baby now, but if you aren't happy [during pregnancy] the baby will have a strange character. Her character won't be healthy." Having a healthy lifestyle, with specific proscriptions are part of many cultures, including Tongan women. One Tongan mother said, "Some things are poison to the soul of the baby, like tobacco."

There are many beliefs related to pregnancy that influence women and their unborn children. Guatemalan women say that if an expectant mother sees an eclipse, her child may be born with a cleft lip and palate. Elisabeth, a Tongan woman

reported, "Tongans believe while you're pregnant you shouldn't touch scissors or cut anything because if you cut anything you might cut the progress of the baby."

Guatemalan women may drink a small amount of cooking oil to "soften the pain" of giving birth. In some cultures numerology and signs influence childbirth. Pui See framed her childbirth experience within Chinese cultural traditions.

> The day [after labor started] it was a rainy day. I went to the hospital in the morning. I felt very happy because according to the lunar calendar it is the Year of the Dragon. Dragons live in water. Because it was raining, that was a good sign for the baby. This [dragon] is a sign of good luck (*jixiang*) in Chinese tradition. Therefore, I thought the delivery would be natural and smooth, because my daughter was born in the dragon year.

Women in many cultures adhere to a 40 day "lying in" (*zuo yue zi* in Chinese) tradition to facilitate maternal recovery and the facilitation of breastfeeding. For example, many Muslim women do not leave their homes during this time period. After this time, birth may be formally celebrated. In traditional Ghanaian culture, the naming ceremony of the child takes place on the fortieth day following the birth of the child.

Birth as a Bittersweet Paradox

Birth was viewed as a bittersweet paradox, with some women giving birth in developing countries where infant and maternal mortality rates are high expressing fear about the risk of bearing children. A Ghanaian woman said, "When a woman goes to give birth, she stands in the middle of life and death." Maria, a Guatemalan mother articulated, "Having a lot of children is very difficult. It is a miracle that one comes out alive. Only God can save your life at that time [of birth]. It's hard. Many women die." Agovi (2003) reported that a Ghanaian woman said,

> When a lot of women go into childbirth, they never return. I was very scared and others too when they go into deliver, they never come back with their babies and I was scared. I could lose my child during delivery and perhaps I will come back home with no child, so I was very scared.

Women used paradoxical words to describe what giving birth is like, including *tongku* and *zingfu,* Chinese words for agony and happiness. Also in Chinese, birth is described as *xianku houtian* or "first bitter, then sweet." Finnish women referred to a Finnish proverb when speaking of giving birth, "Life is more than a dance on a bed of roses." In Spanish, "*no hay mal que por bien no venga*" means that positive outcomes can result from adversity. According to a Tongan woman, "Right before the birth, there was more pain than I could think of, but then I saw the baby and there was a happiness more than I could think of." Words used by women to describe giving birth include: scary, exciting, easy, peaceful, beautiful, incredible, amazing, really hard, spiritual, humbling, joyful, bittersweet, painful, overwhelming, wonderful, satisfying, worthwhile, hard work, exhausting, frightening, indescribable, love, caring, awe and amazement, brilliant, it's just like it has an aura about it, magic, miracle, happiness, fulfilling, unknown, exhilarating, difficult, stressful, and rewarding.

A Guatemalan woman rejoiced in her rite of passage to motherhood, "There is no word to express the experience [of giving birth]. It is more than special. It is a gift and a privilege that God gives to women." A Tongan woman said, "It was just an experience of becoming a mother, like, 'hey, I'm a mother now and hey, I brought this child into the world'. There is an overwhelming feeling of responsibility that gushes over you." An Argentine mother described becoming a mother this way, "Never have you thought that you will love somebody as you will love the babies. . .Being a mother is the most beautiful. Every experience is different and in reality the most beautiful [a woman can have]."

The Pain of Childbirth

For many women, experiencing pain was part of the process of giving birth, especially in those cultures where there is no or minimal use of pain medication. Attitudes, perceptions, and the meaning of pain vary across cultures. A Dutch woman who gave birth unmedicated said, "It was a beautiful experience, including the pain."

Svetlana, a Russian first time mother said, "During contractions I was only thinking, 'Is it possible to love the child after this?' But when she was born and lying on my chest, she looked at me. At that time I forgot all the pain." One woman explained, "Being born into motherhood is the sharpest pain I've ever known."

The Meaning of Giving Birth

Regardless of socio-cultural context, there is deep meaning in the experience of bearing a child. In Russian pregnancy is referred to as "*v polozhemnii*" (in a condition). In Spanish, being pregnant is spoken of as "being filled with light". Muslim women speak of *omooma* (the motherhood feeling) beautifully described in this narrative, "I felt that the baby and I were joined together and we were sharing the same dimensions, the same space. So as I was taking care of myself, I was caring for my child." Motherhood is viewed as an essential and significant role, with birth viewed as a rite of passage into womanhood.

Regardless of socio-cultural context, there is deep meaning in the experience of giving birth, as expressed by Katri, a Finnish woman, "It is an experience without words. There are no words to describe the experience. Perhaps only a mother's heart can feel it." Ruth, a Ghanaian woman said, "When you carry your baby in your arms, then all the things you know, the pains, the problems, you will have to see the child and you will forget about those things." An HIV positive impoverished South African mother said, "The love that a mother has for a child, I never understood it before. I understand it now. Even in the moment when I first saw her I felt some connection. I even cried. I was happy and I was sad."

A Hispanic 17-year-old mother, Yasmin, who had given birth to her first child said,

> When the baby was born, I started to cry because I felt many things I can't describe. When you have a baby, you feel very beautiful gentle. You feel scared, but it's beautiful. It's difficult to express. When you are in labor you feel a lot of pain, but it's all taken away when the baby is born. You feel happy and well—so much so that the pain is alleviated.

A Tongan woman described what giving birth meant to her. "I felt at peace after I saw the baby. At times I wondered if I would have more children, but when I held the baby I knew [that] I would." A Chinese mother who gave birth to a son said,

> After giving birth I felt very blissful. . .When I see my baby boy, no matter how trying it is or how tired I feel, it's all worth it. If I needed to give up my life for my son I will, because I feel that now I live for my son. All of my emotions—happy, angry, sad, joyful—follow my son.

Women made meaning, finding symbolism in giving birth. A Finnish mother described it this way,

> There are hard situation[s] you have to go through, times that are hard for you to control. And it hurts, it hurts very much. You just keep on living. I think it is the same thing with giving birth. It hurts, and there are some things you cannot control like the pain. Giving birth represents both good and bad. It's like life. It is difficult but you also have happiness.

Similarly, an Australian first-time mother said, "Giving birth makes you more resilient. You know you are able to handle things that you didn't think you could. I think it gives you strength because you know if you can get through that, you can cope with a lot of other things."

A Sense of Self-Actualization

Women described feeling empowered by giving birth. An Orthodox Jewish first-time mother said, "It was great. I felt like a hero – 'Hey, I made it!' Nothing about it was easy, absolutely nothing. But there is a great feeling of the last minute of pushing, when [the baby] finally slides out. There is no such feeling in the world." A Dutch woman said, "I did it! I succeeded! I am capable of doing such a thing and I am capable of being calm during the process. I felt so in touch with myself." A Mormon woman said, "I've decided anybody who has a baby is not a wimp. If you can have a baby you can do anything!"

Conclusion

Women give birth within their socio-cultural and political and economic environments which vary widely across the globe, but for all women giving birth is a powerful experience. Culturally diverse women's birth narratives are rich data which document the meaning of a significant life event. Twenty-one-year-old Suzanne, who had given birth to her first child, expressed this.

> There's something about giving birth that women just love to talk about. My mother who had nine children describes all the details of her births, even though it was two or three

> decades ago. My grandmother who is in her sixties still talks about giving birth as though she's [sic] done it yesterday. Women everywhere just have to tell their birth stories.

Birth narratives provide evidence that, "All women have a rich heritage of inner wisdom about birth that has been handed down through generations of women in their family. The beliefs, rituals, and traditions of every culture provide ways of caring and coping during pregnancy, birth, breastfeeding, and parenting" (Lothian 1998: x). A South African mother expressed her sense of this when she said, "It's so interesting to think about because everywhere in the world babies are born the same way, but maybe everybody's experience is different."

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A History of Western Medicine, Labor, and Birth

Pamela K. Stone

There is an abundant literature on the history and medicalization of birth and reproduction, from conception, to the maternal body, to the labors of birth itself (see Davis-Floyd and Sargent 1997; Devries et al. 2001; Ehrenreich and English 1973; Graham and Oakley 1981; Martin 1992; Rapp 2000; Trevathan 1987). Much of this research examines the cultural-social dimensions of medicine and women's bodies within the biomedical model. But there is a complex history that has shaped how western medicine views pregnancy, labor and the maternal body that this chapter aims to examine through a chronological history of childbirth and labor in the last three hundred years that has put in place a static and potentially problematic medicalized model of birth, which, as western medicine permeates all parts of the world, is becoming globally accepted. This chapter focuses primarily on the United States, recognizing occasionally its connection with Europe.

While the story is long, and stems the entirety of human evolution, it is only in the last three hundred years that dramatic changes in the practices of medicine in the Euro-western world have resulted in changes in the way women's health and specifically pregnancy, labors, and birth have been viewed, and consequently "managed", globally. It is from the changes brought on by the standardization of medical practices that a "modern" image of the passive woman becomes the model often overshadowing traditional practices that let the expectant mother's body and the women around her direct the labor and birth often without intervention. This chapter briefly explores the history of labor and birth in western medicine to offer a glimpse of how far reaching and problematic a biomedical model that does not consider the maternal body and its variability and that neglects any re-examination of its practices was constructed and is still in place today as the standard of care for pregnant and laboring women especially in the United States.

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A History of Pregnancy and Birth

Pregnancy and Early Medicine

Prior to the eighteenth century, the norm for all European/American social classes was that pregnancy and birth were centered in the home with the authoritative knowledge resting with the midwife, the expectant mother, and her attendants (Versluysen 1981). In fact, childbearing was seen as "women's work" in which the parturient woman, the midwife, and often two to three other women attended to the birth and the husbands and other males were almost fully excluded (Wilson 1995). This contained birth into a physically and symbolically female social space, devoid of males, which consequently resulted in pregnancy and birth seeming insignificant in very early medical arenas (Versluysen 1981). However, as medicine became standardized and tied to education – a male arena – there was a dramatic shift in the way early medical practitioners viewed the role of medical science in the birth process. This subsequent swing in ideology regarding pregnancy and birth resulted in the birth of the new field of obstetrics, rooted in the surgery and anatomy curricula. Traditional obstetric surgery was not widely practiced in the seventeenth century, and male practitioners only attended birth as an adjunct to the midwife, or in lieu of the midwife if she was unavailable (Wilson 1995). This is still the practice in many European countries today.

The late seventeenth to early eighteenth century saw a change in the role of male attendants through the introduction of instruments pioneered by a small group of male midwifery practitioners, living in France, known as the Chamberlen family. Spanning four generations, the Chamberlen men revolutionized the obstetric industry with the introduction of three instruments, each working to deliver "a living child in obstructed birth by the head" (Wilson 1995: 65). Their most influential instrument, the midwifery forceps, is still part of the obstetric surgeon's tool kit. However the tools of the trade were not the only factors affecting the changing climate of medical care and the shift from female centered, to male, medically managed, pregnancy, labor, and birth in the eighteenth century.

The changing social ideals of the eighteenth century further pushed female health into the arena of male practitioners and facilitated a manufactured sense of dependency on the medical systems (Ehrenreich and English 1973). This belief in dependency results in the appropriation of maternity by male practitioners, and in opening the door for the introduction of lying-in hospitals and maternity wards marking the first attempts to bring "parturition under professional medical care in a secular institutional setting" (Versluysen 1981: 19). This provided a new venue for management, and the normalizing of the birth process, while cementing the need for medical care for women.

For the upper social classes, the nineteenth century saw almost the complete transfer of maternal care into hands of university-trained physicians, who were almost all male. This reallocation of women's healthcare to male physicians aimed to standardize the process of parturition, giving it only one normal course, which set the stage for the pathologizing of the female reproductive body through the

formation of the first obstetric standards (Loudon 1997). These standards evolved as a result of a number of different methods. Some relied on the use of instruments, and others aimed to deliver without tools (Wilson 1995). Although by the end of the eighteenth century physicians had a greater understanding of the birth process, they still sought to control the process by constructing a single-normal course of labor and birth, in which the neonate passes through the birth canal head first, which is still the clinical ideal today (Cunningham et al. 1997). Any deviation from this normal path required intervention (Wilson 1995) and sometimes interventions were routine without deviations from the normal course. By the end of the nineteenth century clinically descriptive assessments of birth and cephalopelvic (head-to-pelvis) disproportion, which results in difficult and obstructed labor, became part of the medical literature.

In 1886 Turner, a medical doctor, whose research in racial differences began the descriptive analyses of pelvic shape, created the foundations of clinical pelvic assessment. Of particular interest to Turner were two clinical shapes, the anthropoid and platypelloid. He described the anthropoid pelvis as the type most suited for childbearing and seen most frequently among non-Europeans, as "degraded or animalized arrangement as seen in the lower races." The platypelloid or flattened pelvis "was characteristic of the more civilized and advanced races of mankind" and thus more often seen in the white women linking difficult – or obstructed – birth to white's [sic];" (as cited by Cadwell and Moloy 1933: 498). At the time Turner may have been right in his assessment that white women had a higher incidence of flattened pelves, but the reasons were far from biological, or evolutionary in origin, and as we will see they were clearly the result of cultural practices adopted by European women.

Historically, inquiry into the variation of the human body and the differences in racial types allowed the medical establishment new ways to justify and create methods and standards in care. For example, one widely known method, known as phrenology, was used to distinguish intelligence by examining the bumps on a head to characterize an individual's intelligence. In the evolutionary debate, the obstetrical dilemma also reflected a typological and deterministic science and was further supported by increases in the rates of flattened pelves and obstructed labors associated with middle to upper-class white women (Loudon 2001). The increase in problematic birth brought with it a focus on quantifying the size and shape of the pelvis and the need to perfect surgical interventions in the birth process. This created a clinical obsession with measuring the pelvis, particularly the sagittal diameters[1] of the pelvic inlet to determine, prior to delivery, the potential for compromised pelvic shape and the need for intervention, forging the foundation for the construction of pelvic typologies in the early twentieth century.

In the early part of the twentieth century two doctors, Cadwell and Moloy (1933), using the racial typologies of pelvic shape garnered from the eighteenth and nineteenth century research, clinically defined four basic pelvic types: gynecoid, android, anthropoid, and platypelloid (Fig. 1). These types are published as the definitive anatomical depictions of human variation fixed by "race, sexual or complex inherited influences *rather than by pathological changes of the bones*

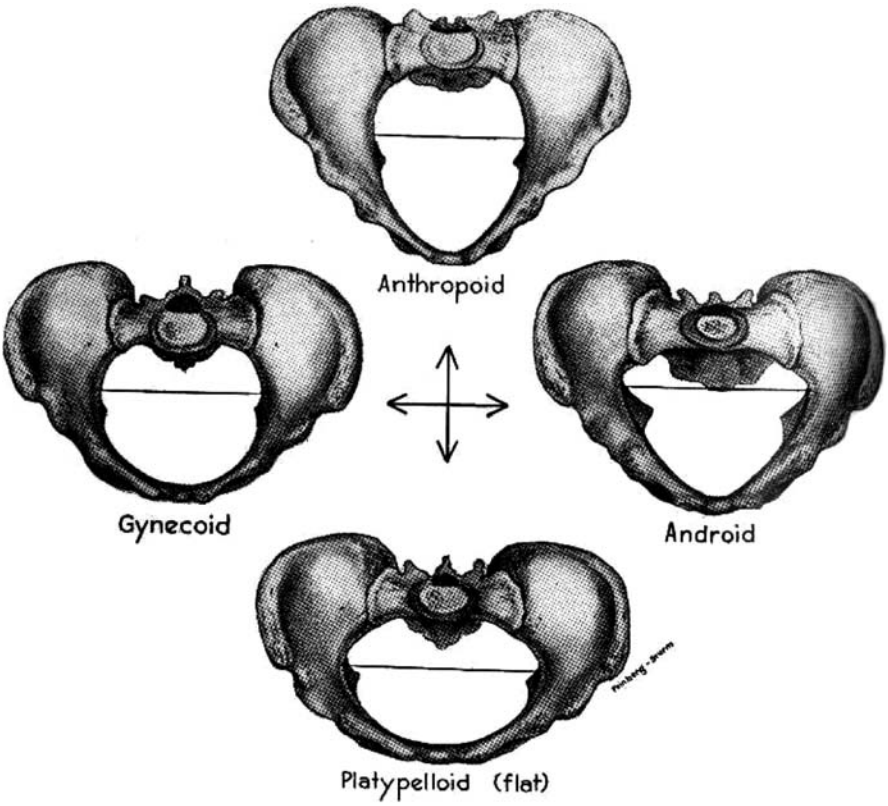

Fig. 1 Pelvic types as recognized by Caldwell and Moloy and incorporated into biomedical obstetrics. (Williams Obstetrics [original from Cadwell and Moloy 1933])

themselves" (Cadwell and Moloy 1933: 479, emphasis added). These types became the standards that are unconditionally re-examined and supported for the next century and are still be seen in recent editions of *Gray's Anatomy* (Gray et al. 2002) and *Williams' Obstetrics* (Cunningham et al. 1997). Furthermore these types continue to support a single norm in which deviations need to be managed.

The Victorian Era 1800–1900

As noted above, as the nineteenth century progresses, medicine becomes central to care, and it also begins to reflect status. At the same time medical practitioners, male-midwives and physicians are faced with the need to normalize their intrusion into literally the most private regions of their female client's anatomy. In an era marked by propriety these professional men used "science" to help alleviate their otherwise morally reprehensive intrusions. To facilitate these, medical practitioners regarded the female reproductive system as a production-line in which the uterus is

the machine that produces the baby (product) facilitated by the laborer (the woman) and supervised by the physician, to alleviate the otherwise morally sensitive nature of their work (Martin 1992). This not only objectified pregnancy and the birth process, but also suggested that it followed a standard course without variation. This in turn supported early biological deterministic notions. It was assumed that the biology and process of pregnancy and birth had one normal course, and therefore was easily managed, and anything deviating from the norm was pathological. In addition, beyond these truly biological processes, scientists of the time also believed that moral traits were inherited and greatly influenced the outcome in all medical circumstances (Ehrenreich and English 1973).

The Victorian woman's "ideal social characteristics. . .were all assumed to have a deeply rooted biological basis" (Smith-Rosenberg and Rosenberg 1999: 112) and this provided further support for the transfer of women's health into the medical arena. Physicians saw women as both the product and prisoner of their reproductive systems (Ehrenreich and English 1973; Smith-Rosenberg and Rosenberg 1999). This is underscored by the comments made in 1847 by a prominent Philadelphia gynecologist in which he describes a woman as ". . .a moral, a sexual, a germiferous, gestative and parturient creature" (Dr. Charles D. Megis, 1847, as cited by Smith-Rosenberg and Rosenberg 1999: 113). These biologically deterministic attitudes supported many of the changes in social ideals, and were fueled by the dynamic economic transformations of the period. These combined gave rise to a dramatic shift in general patterns of ill health for women which are seen in increasing rates of maternal morbidity and mortality (Ehrenreich and English 1973; Loudon 1997). Accompanying this was also an increase in the utilization of obstetric technologies, including forceps delivery and surgical interventions. Medicine becomes cosmopolitan and access to technology is not only novel but also important to status (Jordan 1993).

With the push in allopathic practices and the desire to standardize care, it is clear that the economic transitions of the period also play a role in the changing social identities and health patterns for women. The nineteenth century marks the beginnings of the industrial revolution, in which large changes in economy brought with them rapid change in patterns of ill health and larger disparities between the elite and poor (Ehrenreich and English 1973). Although these disparities were evident in many aspects of lifestyle, the general trends towards ill health were ubiquitous. Women in particular were faced with ill health as a result of poor nutrition. For the middle and upper classes this was facilitated through ideals set by the Victorian codes of morality and behavior in which women were to present themselves as delicate and unable to work hard, and this also required that they maintain small bodies and eat very little (Stacy 2002). This lack of eating supported this picture of fragility as women were prone to fainting spells, and as a result of their lack of sustenance they also put themselves at risk for malnutrition. For the working class, their social roles were almost diametrically opposed, as they were expected to work exceedingly hard (Ehrenreich and English 1973), but their lower status had some similar results as limited access to food resources, coupled with hard labor, left women of the lower classes physically and nutritionally stressed.

Exacerbating nutritional stresses, brought on by cultural behavior and/or hard labor (depending on your class), are the extremely high rates of rickets documented for this period of time (Angel 1978; Cadwell and Moloy 1933). Rickets, a vitamin D deficiency, is the result of lack of sunshine and proper nutrition. It affects children and when chronic can culminate in deformities of bone (Ortner and Putchar1981; Roberts and Manchester 1997). The nutritional problems brought on by social ideals, hard work, and childhood illness most definitely had a synergistic effect on the overall health of women from all social classes. In turn this most likely put the nineteenth century mother at higher risks for complications associated with the stresses of maternity and parturition than had been seen in previous populations.

Rickets and Maternal Health

The role of nutrition and subsequent effects of rickets on the maternal health of women in the nineteenth century must be examined to understand how nutritional deficiencies can be linked to maternal mortality and in particular to obstructed labor. Vitamin D deficiencies generally have the most effect on adult women and the elderly (osteomalacia) and children (rickets). The primary cause of this nutritional deficiency is lack of exposure to sun (Patterson 2002). The result of long-term absence of Vitamin D in the body presents as "soft bones", as vitamin D is essential in the proper mineralization of bone during growth and devolvement periods in childhood and in the maintenance of healthy bones in adults.

Chronic childhood rickets has a lasting affect on the shape of the legs and pelvic girdle. In the pelvis these deformities are known as a "rickety flat pelvis". What happens is the pelvic bones, softened by rickets, react to the pressures of the weight of the upper body and the frontal pull of muscles and tendons and this produces a flattening of the pelvis from front to back (Loudon 1997; Ortner and Putchar 1981; Roberts and Manchester 1997). This can also be exacerbated by lack of activity as well as increases in load bearing. Complication in childbirth as a result of a flattened pelvic shape is obstructed labor, as the neonate cannot ascend the birth canal (Fig. 2a, b).

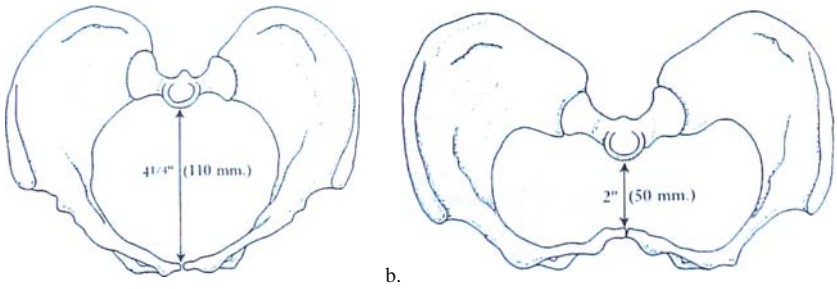

Fig. 2 (**a**) Normal female pelvis (sagittal diameter); (**b**) Pelvic flattening as a consequence of rickets and corset use

During the nineteenth century obstructed labor as a result of a flattened pelvis is one of the major causes of maternal mortality (Loudon 1997). Although rickets is not the only cause of contracted pelvis (others include congenital malformations or traumatic injury), during the nineteenth century the rates of grossly contracted pelvic shape are reported in such high numbers. There is a concurrent sharp increase in the rate of maternal mortality, so that it is clear there is a direct relationship between rickets, flattened pelvic architecture, the need for cesarean sections, and the high rates of maternal death (Loudon 1997). In fact in England and Wales from 1850 to 1900 the rates of maternal mortality are estimated at 50%; after 1900 there is a decrease to roughly 40% and then in the 1930s there is a dramatic decline (Loudon 1997). Clearly the high incidence of rickets, resulting in obstructed labors fueled the need for medical interventions (ceserean sections) in order to get the baby out, and this in turn placed the parturient woman at high risk for infection and hemorrhage (as a ceserean section is major surgery). This is not the only time in history where nutritional deficiencies are on the rise, but it is the first time that such high rates of maternal mortality, as related to obstructed labors, are evident. So what else is putting these women at risk?

Victorian Codes and Proper Attire

The Victorian era marks a dramatic change in moral codes and ethics that governed women's behavior and appearance. Middle-upper class woman were controlled by restrictions on food consumption – delicate women should only eat delicately (Stacy 2002) – creating nutritional deficits. In addition the continued use of corsets – constricting mobility but offering a delicate shape (Fields 1999) – marked a change in the general health of women of the time. With self-imposed nutritional stress, high rates of rickets, and the problems with corsetry, the potential for serious biological consequences for the parturient upper and middle class women are evident. For the working-class women the restrictions were not self-imposed or as tied to the moral codes, but still resulted in similar health issues. As girls and women, they worked extremely hard, were more often inside out of the sun and lacked access to nutritionally rich food resources. Lower class women also wore corsets, as they were not immune to the image requirements of the period (Summers 2001). Furthermore corsetry was used to disguise pregnancy, as in all classes there was social stigma attached to reproduction (Summers 2001). For the upper-middle class, pregnancy was seen as a result of sexual acts not spoken about. For the working class, pregnancy could result in joblessness. Thus the tighter the corset the less pregnant the female body looked. Each of these factors placed these women at risk for serious biological consequences.

A direct correlation can be made using a biocultural framework to understand the influences that shaped woman's bodies and facilitated the rise of the use of cesarean section in the nineteenth century. The combination of high incidences of poor nutrition, reflected in the high rates of vitamin D deficiencies, and chronic childhood rickets combined with the use of corsets staring at a very early age (usually 10 years

of age) further flattened the pelvis, beyond the damage caused by rickets alone. This is a classic example of cultural practices (in this case fashion, ideals, and moral codes), and poor nutrition (which for some were the result of cultural practices), resulting in long-term skeletal and subsequently maternal consequence: pelvic contraction. When combined these factors result in obstructed labor, and this becomes one of the primary causal agents of maternal mortality. In addition prolonged and obstructed labor coupled with surgical intervention, in the form of cesarean section, increases the rates of infection and hemorrhage, and thus we see an exponential increase in a parturient woman's risks of morbidity and mortality in the nineteenth century.

These early biocultural factors have not only influenced the managed care and technocratic model of birth but also provided the foundations for quantitative measures of risk still in use today (Stone and Walrath 2006). It is from here that the loss of variability in birth process and the mechanisms of birth have persisted into the twenty first century and have resulted in an increased risk for medical interventions and in particular, cesarean section which is rooted in an antiquated idea of women's bodies and a culture of medicine as opposed to real and variable biological need.

Medical Interventions

Cesarean Section

The procedure of cesarean section, in which the neonate is removed from the mother's womb by incision, is not new. Written records indicate that this procedure was used by the early Romans (and most certainly by the mother of Caesar), the ancient Hindus, and the ancient Hebrews, but were only performed after the death, or with the imminent death, of the mother (Blumfeld-Kosinski 1990; Keyser 1984; Nielsen 1995). Prior to the nineteenth century cesarean section was used only in rare and desperate cases, and mortality was extremely high (Nielsen 1995). For example, in the eighteenth century mortality associated with cesarean section is reported to be 80–90% only falling 4–10% in the first part of the twentieth century (Nielsen 1995). In comparison in the later part of the twentieth century, even with all the improvements in medical care, mortality as a result of cesarean section is still estimated to be 10–20 times higher than the rate of mortality for women who give birth vaginally (Nielsen 1995).

In the last 40 years the use of cesarean section has been on the rise, reaching all time highs in the United States – but not globally. In the United States cesarean delivery is the most common major operation, being performed at least 1 million times annually (Hospital Discharge Survey 1992, as cited by Cunningham et al. 1997: 509). Clinically there are four frequent indications for cesarean birth: (1) repeat cesarean; (2) dystocia [difficult labor] or failure to progress; (3) breech presentation; and (4) concern for fetal well being (Cunningham et al. 1997: 510). In

the United States the leading factors are repeat cesarean and dystocia, while in other western nations it has been breech presentation and fetal concern but at a significantly lower rate (Cunningham et al. 1997).

In the 1990s and early 2000s the Center for Disease Control (CDC) has reported that the overall rates of cesarean delivery have been at epidemic levels in the United States. Since 1997 the rate nationwide has seen a 60% increase in the use of c-section for first time mothers with children in the vertex position[2] (Campo 2007). Although there were brief declines in between 1989 and 1996 the overall rate has increased steadily, and in 2005 was at 46%, its highest rate since 1996. The rate in 2000 was 16 in every 100 births; in 2008 it rose to roughly 30 births out of 100. In 1970 this rate was only 4 out of 100 births.

While cesarean section, and other technological assistance in parturition is important when necessary, this dramatic rise of cesarean section as an appropriate intervention in lieu of vaginal birth, needs to be addressed. Clearly the need to promote safe and uncomplicated delivery and birth is at the core of this discussion, but it is only in the last twenty years that there has been a dramatic rise in this invasive procedure, putting North American women at risk for higher rates of morbidity and mortality. As pregnancy and birth stress women biologically, the addition of major surgery can result in increases in complications including higher rates of infections, hemorrhage, and even death. This is particularly striking as globally the World Health Organization (WHO) during the 1998 world health day conference reported the primary causes of maternal mortality to be hemorrhage (25%), infection (15%), toxemia[3] (12%), and obstructed labor (8%) in order of their occurrence. The remaining 41% is made up of other direct (8%) and indirect (20%) causes including as a separate category unsafe abortion (13%). Furthermore it is generally a combination of prolonged and obstructed labor, combined with hemorrhage and infection that account for the global deaths of roughly 600,000 women yearly (Crosette 1996; Duke and Conly 1997; WHO 2008; World Health Day 1998). So wouldn't the act of surgically intervening put women at even higher risks for each of these factors?

Interestingly WHO (2008) also reports that your lifetime risk of maternal death is reduced dramatically if you live in North America. This is fascinating, as obstructed labor, which accounts for only 8% of global maternal health problems, but is the primary indicator for the use of cesarean intervention in the US, is reported on at a rate three times the global need in the United States. In addition this operation places American women at risk for increases in infection, hemorrhage, and death, which would most likely not be part of the picture if they had a vaginal birth. Thus it is timely to ask what has contributed to the overwhelming use of cesarean section as an appropriate method of delivery in the United States today.

The rapid acceptance and "normalizing" of cesarean section in American biomedical obstetrics, and the historical connectedness of women's biology and culture which has shaped the birth process, needs to be re-examined. The variability of each female body, cultural dynamics, and nutrition suggests that there cannot be one path to a positive birth outcome. But it is through a narrow lens that modern medicine views the birth process and it is from here that western medicine has

seen fit to support cesarean delivery as an appropriate (and common) tool in managed birth care. It is this acceptance and overuse of cesarean sections for American women that is often not directed by biological need, but a product of the American medical model of birth.

Conclusion

Childbirth is "... an intimate and complex transaction whose topic is physiological and whose language is cultural" (Jordan 1993: 3). A cross-cultural discussion of birth recognizes that the desired outcome of any birth is the health of the mother and child and with this choices are made that often require interventions and support that go beyond the mother's body. But it is the degree of intervention and support that constitute powerful influences on the ways in which the competencies and expectations of the parturient women are shaped (Jordan 1993). Creating a chasm between the constructed knowledge of biomedicine and the role of female biology alongside cultural buffers in the birth process results in the discussions of childbirth and the role of technology in facilitating positive outcomes. This neglects to examine birth as a mosaic of complex relationships facilitated through the lens by which women are introduced to their culture's birthing system, and the role they have as expectant mothers. Local definitions of birth provide powerful examples of a women's expectation of her own abilities, body, and role at the time of her labor and birth (Jordan 1993). Furthermore it is the locally defined understanding of birth, alongside the formal and informal ways that knowledge about birth is shared, that result in the variability that should mark birth across cultures and from women to women within the same culture. For women biological changes structured by cultural factors have influenced biomedical practices long past the existence (and effects) of the cultural practices. The Euro-American medicalized female body with regards to birth has been painted as a static picture of parturition, and the medical standards have remained inflexible over time. This Euro-American definition of birth dramatically influences the way in which women view their own bodies, pregnancies, and labors.

In American culture today the birth process is viewed through the lens of popular media, tempered by a culture of medicine in which technology manages birth and symbolizes the loss of women's authoritative knowledge over their own bodies and the birth process (Davis-Floyd 1996; Davis-Floyd and Sargent 1997; Elson 1997; Jordan 1993). Quite often a woman is seen urgently trying to get to a hospital, or in a hospital bed screaming for pain medication, yelling at her husband, unable to focus until the Doctor appears. Rarely is birth portrayed as normal, calm, and with the woman in control. This establishes the popularized notion that birth is a medical event, needing management, and it places the authoritative knowledge of the birth process with the doctor (or attendant) and embeds it in the technology present – not with the mother to be. American women prepare for their own delivery assuming this chaotic technocratic picture of birth, where the women's own body is

marginalized by technology and the clinical notion that birth is a medical event needing management – not a natural process – and this has begun to pervade the global healthcare arena.

Acknowledging the contextual values that have influenced biomedical and bioanthropological research surrounding birth and the variable nature of the birth mechanism and the parturient body is integral in recognizing the need for intervention in the birth process. The biases and role of history as well as sociopolitical factors that supported this arena of scientific enterprise (i.e. medicalizing the parturient body) strongly attest to the influences of gender in how the biomedical knowledge of birth is shaped. As Davis–Floyd (1996) and others have argued, the authoritative knowledge was shifted from women (midwives, attendant and the mother to be) to the predominately male medical establishment. But biocultural research can also assist in deconstructing current models and assumptions that marginalize or devalue the experience and lives of women. The following chapters will explore multiple models of birth that integrate western medicine and traditional knowledge across the globe offering a mosaic of birthing women's experiences that are often different from the purely technological medical model that many women in the western world have become so accustomed to, and that is pushed by many of the world's health care initiatives.

Notes

1. Sagittal diameter is a measurement of the pelvic inlet from the back to the front (see Fig. 2).
2. Vertex position is the most common and most desirable position and is seen when the baby's head is pointed down the birth canal in the direction to come out first.
3. Referring to metabolic disorders of pregnancy characterized by hypertension, edema, and protein in the urine; e.g., preeclampsia and eclampsia.

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Childbirth in China

Travis Anna Harvey and Lila Buckley

Narratives of birth in China today are overwhelmingly dominated by the concept of control: control of fertility, control of birth environment, control of laboring mother, control of infant. In a nation craving stability and international respect, birth is seen as a powerful, dangerous force that is best contained and controlled by modern technology and scientific methods. Traditional birthing practices such as midwife-attended births and births outside the hospital are fading fast, now cast by state officials and Chinese citizens alike as evidence of the "backward" ways of a pre-reform China blamed for the late entrance of the country onto the stage of world powers. Understanding pregnancy and birth as a culturally interpreted and politically negotiated process, this chapter explores how birth in China acts as a medium through which the modern Chinese state negotiates political power and cultural transformation, nationhood and cultural identity. It further examines individual agency and negotiation within these narratives of control in childbirth in today's China.[1]

Mandate for Modernity: Control of the Nation, Control of the Body

The desire to control birth in China has roots in the country's chaotic political history of the past several centuries and the resulting deep desire for stability in all aspects of life. For most of the country's long history, China – with its large cities, extensive libraries, sophisticated technology, fine arts and silks, and rich medical tradition – was a civilization far ahead of its Western counterparts. Indeed, after visiting the Chinese capital in the thirteenth century, Marco Polo proclaimed the city to be "without doubt the finest and most splendid city in the world" (Hansen 2000: 409).

However, in the eighteenth century when the European Enlightenment and scientific and industrial revolutions began producing unprecedented wealth and power in

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Europe, Chinese superiority came into question. The Enlightenment "promoted reason, universalism, progress – a future world, inspired by science, in which disparate cultures would give way to global uniformity, sure evidence of the psychic unity of humankind" (Barrett et al. 2001: 469). This discourse – and the exploitative imperialism it eventually encouraged – greatly impacted the futures of all the world's people. China's defeat by Great Britain in the Opium Wars in 1839 began a "Century of Humiliation" that witnessed economic crisis, famine, corruption, poverty and rebellions and ultimately led to the breakdown in 1911 of the 2000 year-old imperial system (Schirokauer 1991: 256–270). The period after the European Enlightenment was, for China, one of rapidly declining prestige, both in the eyes of Europeans and in Chinese self-consciousness.

The decades of domestic fragmentation and foreign subjugation dealt a serious blow to traditional notions of Chinese nationhood and cultural identity. Chinese selfhood is tied to the notion of China as the center of the universe and its people as the descendants of heaven. "China" literally means "Middle Kingdom". Traditional Chinese governance was based on the notion of "divine and moral sanctions" in which the emperor was believed to rule by virtue of a "Mandate of Heaven" (Schirokauer 1991: 42). What made European supremacy particularly troubling was not only the material concern for the suffering of the Chinese people at the expense of European exploitation. It was also the ideological threat that the semi-colonial status of China posed to a Chinese national identity based on the ideology of its heaven-sent right to be number one. Towards the end of the Qing Dynasty, as the country was plagued by civil unrest and foreign invasions, it became the charge of the Republican revolutionists to reverse this trend and end foreign hegemony (Duara 1995). They became convinced that the very survival of China itself depended on its modernization. Specifically, the Republicans aimed to transform the Chinese nation and place China in the ranks of the other modern states while at the same time "preserv[ing] . . . the historical genius of the Chinese people" (Furth 1976: 31–32 in Duara 1995: 207). This was China's new Mandate for Modernity.

For a time in the mid-1900s, China's heaven-sent right to modern-nation status seemed to place it above even the laws of science, as Chinese Communist Party chairman Mao Zedong sought to completely remake the country within a few short years – first economically during the Great Leap Forward (1958–1960) and then culturally during the ensuing Great Proletarian Cultural Revolution (1966–1976). Traditional farming and production techniques were abandoned as Mao attempted to rapidly industrialize the nation and "overtak[e] Britain" in just 2 years (Chan 2001: 1). When these economic reforms failed to realize his goals, and instead caused mass famine and economic turmoil, Mao turned instead to attack Chinese culture itself. Under the Cultural Revolution, Mao indignantly purged the country of its liberal "bourgeoisie" elements, demonizing not only all Western influences but also the "Four Olds" of Chinese society – old ideas, cultures, habits, and customs (Lu 2004: 64–69). In a complete restructuring of the social system, Mao gave almost unlimited power to China's youth and encouraged them to attack their elders and authorities. Students turned against teachers, employees turned against managers, and daughters turned against mothers. Eventually, the chaos created by

these social experiments ended the Revolution, but it also left an immense generation gap between the youth of the Revolution and their parents. Indeed, as scholar Lu Xing has commented, those who came of age during this period "know virtually nothing about traditional cultural values and ancient Chinese philosophy" (Lu 2004: 64). The suffering and turmoil of this time left China's leadership bruised and in ever more desperate need of stability. By disrupting cultural continuity while failing on a political and economic level then, the Great Leap Forward and the Cultural Revolution served to bring new urgency to China's Mandate for Modernity.

Post Mao, China's ongoing effort to modernize is still guided by the principle that progress will come by developing a stronger national government and replacing the "backward" ways of "traditional" Chinese society. Today, however, the emphasis is on the rational modes of analysis provided by science. Spurred by these uniquely Chinese historical events, and influenced by Enlightenment ideas of scientific modernity, the Chinese state has come to see human life, both social and physical, as something that can be manipulated or engineered in the same way that a machine can be manipulated or engineered (see Dikotter 1992, 1995; Greenhalgh 1993). In this context the Mandate for Modernity leaves little room for the traditional Chinese medical construction of the "chaotic" body in which "bodies were marked as sites of especially dangerous irregularity" (Zito and Barlow 1994: 13). Instead, the older models are being replaced by the biomedical model of a "reliable, modern body" that can be systematically managed (Furth 1999: 25). If the process of modern state-building means an increase in the state's presence in and control of people's lives, it also means greater technocratic management over people's bodies. Under what political scientist and anthropologist James Scott terms an authoritarian high modernist ideology, it then becomes the duty of a responsible, modern state to use the most advanced science available to control the human body (1998: 92–93). This modern way of thinking is meant to erase social suffering and lead humanity as a whole to a state of Earthly perfection.

In this model, individual Chinese women are expected to control their bodies – not just for the health of their babies or their communities, as had been the case in traditional Chinese society – but now for the good of the state and the strength of a modern China. The individual body and the body politic thus exist in a dynamic, mutually constitutive relationship in which the woman, by controlling her body, affects the very strength of her nation. Similarly, childbirth – long a central focus of Chinese women's lives – must be managed and controlled by science rather than tradition for the progress of the modern Chinese nation. Modern mothers and babies, separated from backward traditional China and reincorporated into the discourse of modernity through the rituals of modern biomedical obstetrics, literally rebirth a strong and modern China, free from the suffering of the past.

This discourse on science and political management of the social, political and biological body influenced by a uniquely Chinese interpretation of the European Enlightenment worldview driven by a Mandate for Modernity forms the biocultural underpinnings of childbirth in China today.[2] It underscores the role of the nation-state as a powerful player in birth dynamics, and leads directly to the medicalization of childbirth in China and the rejection of seemingly backward traditional

midwives. The rituals through which women give birth to a new and modern nation become the cultural space where women, healthcare providers and the state negotiate this modernity.

One Modern Nation: "One-Child" Families and Control of Fertility

Childbirth practices in today's China underline the country's Mandate for Modernity before conception even takes place, with the fertility of its citizens dominated by a discourse and policy of rationality and control. China's Planned Birth Policy was formally instituted in 1979 with the original aim of curbing China's exploding population growth and preventing widespread famine (White 2006). Commonly misrepresented in today's international community as the "one-child policy", this comprehensive population-control program restricts the number of children per family based on parental geographic location and ethnicity, with most urban residents[3] and many rural residents limited to one child. According to the National Bureau of Statistics of China, of the 35% of childbearing Chinese women who gave birth in 2006, 23% of these were first births, 10.62% were second births and 1.36% were third births or more (National Bureau of Statistics of China 2008). The result has been a population growth rate that has plummeted from 12% in 1978 to just over 5% in 2006 (National Bureau of Statistics of China 2008).

While the Chinese leadership has at times disagreed on the specifics of how to orchestrate its policy of population control, they have always agreed on the policy's premise – "that population growth constitute[s] the single biggest threat to China's modernization" (White 2006: 15). China's leaders have justified extreme measures for the sake of the nation's modernity – placing the individual fertility of every citizen firmly under State control – and they have done so with surprising efficiency and minimal resistance. Chinese citizens have been able to accept these strict controls largely because propaganda promoting the policy has linked it with the country's modernization. As Tyrene White points out, these campaigns have focused on creating an "associat[ion with] the desire for a multi-child family with backwardness and ignorance" while at the same time "link[ing] the one-child family to patriotism and modernity" (2006: 14). Couples are encouraged to do their part to "help China become a modern nation" by exercising "modern childbearing choices" (2006: 14).

With a heaven-sent duty to modernize the country, the Chinese state achieves a level of fertility control through this policy seen nowhere else in the world. In addition to instigating education campaigns and funded contraception and abortion programs, the state requires every married couple in the country to register with their local Office of Family Planning. These local offices vary from county to county, but generally control record keeping for residents' pregnancy and birth registration as well as contraceptive methods used by each couple. They sometimes also provide abortions and contraception through affiliated clinics.

While the Planned Birth Policy shows a strong top-down control of fertility that strongly limits the agency of Chinese citizens in negotiating with the state, many

Chinese women today have themselves internalized the need for personal bodily control in the name of modernization – especially in urban areas. The policy's implementation has been so successful, in fact, that many urban couples argue they would not want more children even if more were permitted. These shifting cultural ideals of Chinese families are exemplified by the fact that many career women today even express a preference for no children. As one Harbin 30-year-old banker who was considering an abortion expressed, "Children get in the way of my career and my earnings – If my husband's family would allow it, I'd just as soon not keep this child." Others are grateful for the fertility controls because of a sense that the scarcity of pregnancies has raised the status of pregnant women. Explained one woman in her third trimester, "Now that women only get pregnant once, their pregnancy is really important. Women now have a sense of pride in being pregnant. Everyone treats them like treasured objects. It didn't used to be like this." This modernist viewpoint on fertility controls is not shared by all Chinese, but represents a growing and pervasive trend in attitude shift away from traditional Chinese values of a large family.

Status Births: Negotiating Modernity Through Hospital and Cesarean Births

Once pregnant, women in China experience prenatal care and delivery in a vast range of locations, from ultra-modern private hospitals to rural clinics – and decreasingly, in the home (Guo et al. 2007; Harris et al. 2007). While the rituals of birth are always experienced within the dominant political and social discourse of modernity, a woman's agency to negotiate these rituals is largely constrained by her socioeconomic status. China's 1.3 billion people remain spread across wide socioeconomic and geographic disparities. Likewise, in China's recently privatized and decentralized medical system, mothers face high birth costs as a proportion of income – especially in rural areas where over half of Chinese live (Blumenthal and Hsiao 2007). The interplay between China's Mandate for Modernity and the realities of societal stratification can be seen directly in the choice of birth location – with the most controlled environments and practices – representing the highest ideals of modernity but being the least accessible to the majority of Chinese.

On the highest end of the socioeconomic ladder are privately owned hospitals designed mostly to serve foreigners and found only in China's largest cities. These hospitals are nearly indistinguishable from the most modern, up-to-date birthing facility in any large North American city. They often have mixed foreign and Chinese staff, with some staff trained overseas. Rooms for labor, delivery, and post-partum are spacious and private, and pain treatment is readily available. A few even have special facilities such as jetted hot tubs for laboring. The labor and birth experience in these facilities is most similar to the biotechnological model of birth experienced by many women in North America. These hospitals represent the ultimate model for the modern, scientific birth experience

in China. When birth is portrayed in popular magazines, books, videos and television shows, the dominant images are of these luxury facilities. However, these hospitals charge high fees and are therefore inaccessible to all except the wealthiest.

A less expensive alternative in Chinese cities is provided by large multi-use hospitals. These facilities are largely state-run and treat a wide range of medical conditions and diseases, generally handling birth in a designated labor and delivery wing. Women receive their prenatal care in a separate wing from labor and delivery and are seen on a first-come first-served basis. They wait in crowded rooms and are shuttled from office to office for a wide range of procedures each check-up and rarely see the same doctor more than once. Though women complain of fatigue and stress during prenatal check-ups, which can sometimes take an entire day to complete, the women still complete the expected regimen of prenatal visits because they are convinced of their importance for the health of their babies. As one mother explained in Harbin, "the doctors at the hospital are very good and scientific. They use modern methods and are very careful – I had the best for my baby." Women observed in this Harbin facility and others like it were not explained and did not expect to be explained the risks associated with various procedures or medications. Instead, they placed their trust entirely in the hands of the medical staff. While these hospitals are not as attractive as the privately owned Western-style facilities, then, they still represent the highly controlled, scientific approach to pregnancy and childbirth so integral to China's vision of modernity. They are also significantly more affordable for the upper and middle classes.

The approach to delivery itself is impersonal and highly medicalized in these hospitals, in part due to their status as tertiary care centers for high risk pregnancies from smaller facilities, but also because this type of birth management is integral to the culture of the hospital. Private patient rooms for labor and postpartum are very uncommon – perhaps non-existent – in state-run hospitals. Vaginal deliveries are attended by *zhuchanshi*[4] in a room with other women giving birth simultaneously. Nearly all of the women (in some hospitals nearing 100%) are given drugs to induce or augment (speed) labor. In addition, laboring women are given few to no options for pain relief and are expected and encouraged to labor quietly. The hospitals visited also had a high rate of episiotomy [vaginal incision made so that women don't tear during the birth], some at nearly 100% of deliveries. Depending on the facility, vaginal deliveries either take place in the same room as labor, or in a separate room. Cesarean births are attended by a surgical physician and are often encouraged by poorly-paid doctors at these state-run facilities because they take less time than natural deliveries and can earn two to four times as much money per birth for hospitals as well as for doctors.

A third birth location option found in cities and large towns throughout China are woman-baby hospitals. These facilities are dedicated to providing care for and education on fertility, prenatal care, childbirth, and post-partum recovery. These are generally smaller than multi-use hospitals and have fewer staff. In these clinics, *zhuchanshi* attended all deliveries, including conducting abortions and cesarean surgeries. If the mother or baby present with serious health risks they are transported

to a larger hospital. Labor and post-partum care take place in common rooms and delivery in a semi-private or common room separate from the labor. Cesarean section rates can run somewhat lower than in the larger urban hospitals, but they remain many-fold higher than the World Health Organization recommendations of 15% (World Health Organization 1985). Woman-baby hospitals in our studies ran 40–90% cesarean section rates, compared to rates of 70–90% on average in the larger urban hospitals.

The birth model presented at the mother-baby hospitals is generally as steeped in biomedical ideology as at the larger state-clinics, but the care tends to be slightly more personalized. Smaller staff size at mother-baby hospitals means that women have a better chance of repeat visits to the same nurse during prenatal exams. In addition, staff visited in our studies seemed to have a sense of pride about their work and expressed consistent belief that their "modern and scientific" methods were helping women have healthier births. The discourse surrounding birth in these settings is still dominated by control and progress, and state-mandated videos produced by multinational corporations dominate the birthing and infant care classes. As in the multi-use hospitals, there is little availability of pain management tools or techniques in these facilities, although epidurals and TENS units[5] were used in some locations.

The mother-baby hospitals represent an alluring model of modern, medicalized birth at a cost that is accessible to a larger portion of the population. This option is so attractive, in fact, that it is common for women to travel great distances from their rural villages in order to give birth in a mother-baby hospital. At a woman-baby hospital in Jilin, for example, many of the woman lived in the hospital for some period before their baby was born because the travel distance was so great. In addition to the time that such a journey represents, the travel itself can pose significant financial burden on rural women, especially if they are accompanied by other family members and require lodging in advance of the birth. Furthermore, delivery costs must also be paid up front and in full at these facilities. The mother baby hospitals therefore primarily serve those urban and rural women who have a relatively stable income that allows them some amount of savings or the small minority who have some type of health insurance.

From the privately owned hospitals to the woman-baby hospitals, women in cities and larger towns are presented with a highly medicalized and relatively impersonal approach to pregnancy and birth. Urban Chinese women overwhelmingly embrace this medicalized model of birth in part because they believe the hegemonic narrative that modern, scientific interventions can and should prevent the suffering they believe is part of childbirth. Women routinely talk about their fear of the pain of childbirth, and of their desire for the modern hospital to be able to control this "torturous" process so that they will suffer less. They described birth as "terrifying" and express being "scared to death" of labor. As a result of this fear, Chinese women and their caregivers in all hospital settings increasingly choose cesarean section deliveries in order to eliminate suffering.

The choice for cesarean surgery as the modern means to eliminate the suffering of birth is not surprising given the limited agency Chinese women have to

negotiate within the hospital setting. The practices surrounding the routine hospital birth experience in China – uncomfortable physical circumstances in vaginal birth; the disallowance or disuse of known methods for reducing discomfort like pain medication, privacy and labor companions; and painful biomedical birth rituals such as episiotomy, pubic shaving and rectal examinations routinely performed – all contribute to a cultural notion of birth as torturous.

The cesarean section offers an appealing option that not only eliminates some of the suffering associated with birth for the mother, but also allows the health care provider to even more closely manage the birthing process and earn more money for the hospital and in personal bonuses. As one Hangzhou-born biologist affirmed in only her second month of pregnancy, "I'm definitely having a cesarean – I'm over 30. It's the only option. I've studied medicine, I know that it's faster and there's no suffering." The medical model of ultimate control over the birthing body is thus seen as wielding power to erase the suffering and terror of childbirth. In this construction, the scientific method of the cesarean-section delivery becomes the ultimate modern and civilized way of bringing order to the chaotic and unruly process of birth.

However, the high cost of cesarean delivery compared to vaginal birth means that only those of means can afford this "modern", "civilized", technological birth experience. Therefore, cesarean birth has in many circumstances become a status choice, rather than a medical choice. "In China, if you have the money, you have a cesarean," explained a Harbin-based seamstress during her third trimester. In addition, through the resulting association with status and prestige, cesarean surgery becomes even more strongly associated with modernism and what is "best for the child." As the same Harbin seamstress who was not planning a cesarean herself due to the high cost explained, "Everyone says it is easier to control the process and ensure the safety of both mother and child [with a cesarean]."

From ultra-sophisticated private-hospitals to dedicated mother-baby hospitals, then, middle and upper class Chinese are largely presented with – and generally embrace – heavily technocratic birth rituals, even if the delivery of those rituals varies according to socioeconomic disparities. This technocratic model is dominated by a discourse of modernity and control, manifested in the high rate of cesarean delivery. Given the strong historical motivation for the Mandate for Modernity, it is likely that this highly controlled style of birth management represents the foreseeable future of childbirth in China, especially as the economic mobility of the Chinese increases.

Chasing Out the Midwives: Rural Health Clinics and the Struggle for Modernity

While the birth choices available to China's urban and semi-urban residents largely embody the country's Mandate for Modernity, the vast majority of rural residents receive care that falls short of this paradigm. Some care, such as that given by home-birth midwives, even exists completely outside this discourse.

In small towns, villages, and rural minority areas – where the majority of Chinese still live today – most births occur in multi-use rural health clinics. Since the decentralization of healthcare delivery in China and the dissolution of the Cooperative Medical System in the early 1980s, these clinics have been operated by the local government or state-run factory or farm and funded by local taxes and health service fees collected by the facility. Facilities vary widely in amount of equipment and cleanliness, with some relatively well equipped and clean, and others lacking even basic necessities such as hot water for sterilizing equipment. One facility in rural Yunnan province had little more than an IV pole, a hard cot, and a broken ultrasound machine in the way of birthing equipment, and only a basic first aid kit range of medications. Similarly, there is a wide range of education level for the staff in these facilities, ranging from "barefoot doctors"[6] with little formal training to more highly trained medical professionals. Level of childbirth experience also ranged from minimal to ample. Not surprisingly, women's birth experiences in these clinics range widely as well. The wide variation in facilities and services can be attributed primarily to the funding sources of these facilities, which are dependent on highly variable income tax, with wealthier areas having better facilities and poorer areas having minimal facilities.

For all the sanitary deterrents, and despite the often-significant added financial and logistical burden that getting to the clinics can represent, many rural residents still choose these facilities over the alternative of giving birth at home. The willingness of so many Chinese women to choose financial burden and personal hardship – and in many cases even compromised care – in order to avoid home birth, is evidence of systematic efforts on the part of Chinese leaders to bring all births under their control. The local Offices of Family Planning throughout the country strongly encourage women to come to the clinics to have their babies. The main reasons given are easier transport to a larger hospital if a problem were to occur during labor, easier management of the baby's registration, and access to contraception programs.

Despite these efforts, some babies in China are still born at home. The World Health Organization estimates that China's hospital/clinic birth rate was just over 80% in 2002 (Guo et al. 2007). When a baby is born at home, mothers generally give birth alone, with female relatives, or are attended by a *jieshengpo* or "receiving-birth granny". Discourse on home birth and *jieshengpo* among urban Chinese and healthcare workers reveals deep uneasiness with this practice in the context of a modern China. The word for traditional midwife, *jieshengpo* is fading in favor of the modern word, *zhuchanshi* (McMahon 1995). Indeed, while the average Chinese person will readily discuss the work of *zhuchanshi*, many do not even recognize or are confused by the term for the traditional midwife. Others insist that the term is archaic or inappropriately informal and that *zhuchanshi* should be used instead. As one *zhuchanshi* explained, "No modern, cultured person would ever *choose* to have her baby with a traditional *jieshengpo*." This *zhuchanshi*, who had most likely never met a traditional midwife, continued, "These uneducated, uncultured grannies don't understand the anatomy and physiology of birth, and they do lots of dangerous things." In explaining why some people still give birth outside of hospitals in China,

she blamed the "backwardness" of her country. "The government has not yet built hospitals everywhere. Some people can't pay for hospitals either."

Indeed, socioeconomic status plays a large role in the continued practice of homebirth in China. Those most likely to give birth at home include: impoverished women who cannot afford even the most basic care; women in extremely rural areas who cannot reach the rural clinics; women attempting to escape the Planned Birth policy; and women from minority groups who have stronger social imperatives to remain close to home and family during birth. All of these groups have been largely left behind in the last two decades of rapid economic development in China and therefore fall outside of the dominant discourse on China's modernization. From the state's perspective, continued practice of homebirth weakens control over the population – both in terms of actual practices around birth, and in terms of the fertility of the birthing women – and therefore weakens the State's hold on its Mandate for Modernity. As a result, the Chinese leadership is actively pursuing approaches to draw these groups of women into the fold of the country's larger healthcare system while eliminating the profession of the *jieshengpo* through heavy fines for conducting home birth.

Overwhelmingly, the birth rituals available to Chinese women across the spectrum of socio-economic strata reflect the dominant discourse of modernism. As in the urban setting, the nation-state's hegemonic narrative of scientific rationalism applied to birth, coupled with state-sponsored initiatives that directly control fertility and birth choices, have left rural women little agency to negotiate the means by which they give birth. However, there still exist some birth rituals where this discourse of modernity is under negotiation: the postpartum period.

The Month of Sitting: Negotiating Chinese Modernity Postpartum

The month postpartum is largely negotiated at home by the new mother and her female family members. In this arena, traditions passed down from the older generation are more relevant than state hegemony, doctor authority, or even the hospital's modernistic biomedical narratives. The result has been a stronger continuity of traditional practices surrounding this time period – specifically in the custom of *zuoyuezi*.

Zuoyuezi, meaning, "to sit the month", describes a month of postpartum rest or a lying-in period. According to tradition, women's bodies were considered to be vulnerable to winds and cold, especially following birth, and were potentially polluting to others. In addition, the souls of newborns were believed to be only loosely attached to their bodies. The aim of *zuoyuezi*, then, was to counter the ill effects of the birth pollutants and to prevent infant soul loss (Ahern 1975; Furth 1987; Wolf 1972).

While older birth terms such as *jieshengpo* have been effectively eliminated from colloquial usage, the term *zuoyuezi* is a common household word and people are

often eager to share their understanding of the various taboos and regulations associated with the tradition. Women routinely describe restrictions that include staying indoors for thirty to ninety days after giving birth; avoiding getting wet – including taboos on washing hair and brushing teeth; avoiding certain foods such as uncooked fruits and vegetables, cold beverages, dumplings and all sour foods; staying away from open windows and wind; and avoiding household chores such as cooking and cleaning. In addition to the list of taboos, there is an equally lengthy list of the things a woman is supposed to do and eat during this period, including special types of chicken, soups, and large quantities of eggs and milk. These customs are taken very seriously – not following them poses a threat of *fengshibing*, "wind-wetness condition", which eventually results in crippling arthritis and chronic weakness.

These *zuoyuezi* customs and beliefs are deeply rooted in principles of traditional Chinese medicine – many of which directly contradict western biomedical views of the female body, sanitation, and health. Indeed, in direct contradiction to these traditional notions of *zuoyuezi*, official State childbirth education materials explicitly instruct women to shower, to eat fresh vegetables and get fresh air. However, in practice, most Chinese women still adhere to some form of the older customs. Most women have at least one female relative by their sides during the *zuoyuezi* period to help prepare these special foods and ensure they follow the custom. Many women find some comfort in the custom of *zuoyuezi* because it represents quality time with close female relatives. For example, a 26 year-old married woman who had moved from her village to find work in the city of Harbin several years before her pregnancy described her plans to return home for her postpartum period to be taken care of by her mother. She anticipated being able "to rest up and get help with eating and cooking the right foods" and was looking forward to the chance "to finally meet my child and be taken care of by my mom." While women in China generally lived with their husband's families after marriage, women were traditionally allowed to travel home for childbirth and the post-partum month to be cared for by their mothers. This represented a release from the normal pressures of the mother-in-law (see Wolf 1972).

The custom of *zuoyuezi* is so persistent that even Chinese women who emigrate out of the country and resist the practice can still find themselves pressured by relatives into complying. In an interview in Montreal, one independent-thinking Shanghai native who had moved to Canada with her husband shortly after their marriage described the custom as one full of suffering and "bitterness" and discarded it as "traditional Chinese culture". Despite this resentment, she planned to follow the custom because, she felt had no other choice. "My mom says it's good for the body. You have to do it or you'll get sick. And besides, no one would allow me to not do it. Everyone would say I was crazy." No matter how critical this woman may have felt about *zuoyuezi*, the social pressures from her kin left her no choice but to follow it – even from the other side of the world.

To the extent that *zuoyuezi* persists, it does so largely because of its interconnectedness with the role of elderly mothers who, because of their age, have the authority to override the salient modernistic discourse and instead impose traditional customs to control the younger women's actions during this month. From an anthropological

perspective, *zuoyuezi* can be seen as a cultural space where the State and kin negotiate for control over the mother's body. While the state controls the rituals of biological reproduction, kin groups control the rituals of social reproduction. The elderly woman's ability to control this time period is evidence of the persisting strong social authority of the kin system in China, despite disruptions to this system during the Cultural Revolution.

Conclusion

The paradigm of control of the birthing woman's body in Chinese culture is not new. However, the reasons for tight control in the management of childbirth in modern China have changed as China has changed. As China shapes itself as a formidable player on the world stage and recovers from a nearly two century long period of political and social chaos, a distinctive drive toward modernity affects all aspects of modern Chinese life, including childbirth. Modern Chinese see science and rationalism as the current legitimate authority in managing the rituals of birth.

The Chinese nation-state has wholeheartedly adopted this Mandate for Modernity and has been quite successful in applying it toward national programs aimed at reducing fertility and eliminating homebirth. Chinese women similarly see biomedical management of birth as the answer to eliminating the pain of childbirth. However, as the Chinese people increasingly adopt this modern birth methodology, they are still constrained by socioeconomic factors that keep many citizens from achieving a medically-managed birth. State policies and practices around birth account for these disparities while striving to minimize those aspects that threaten the leadership's Mandate for Modernity. This has led to a sharp and continuing decline in some traditional practices such as midwife-attended homebirths. In contrast, the traditional postpartum custom of *zuoyuezi* persists despite its contradictions with modernistic discourses, largely because it has remained within the realm of kin control. The future of birth management and customs in China will largely depend on the agency of the state, medical authority, family members and birthing women to each negotiate this drive for modernity along disparate socioeconomic lines.

Notes

1. Unless otherwise noted, conclusions and analysis in this chapter are based on interviews and participatory observation of 60 Chinese mothers, caregivers, and officials between August 2001 and April 2004.
2. Anthropologists and historians alike have documented the ways in which the Chinese state, both past and present, has considered birth to be crucial to the advancement of the nation (see, for example, Anagnost 1995; Bray 1997; Ebrey 1993; Furth 1999; Gottschang 1998; Rofel 1999).
3. Urban residents still represent the minority in China, with rural residents representing 56.1% of the population living in 2006, according to the National Sample Survey on Population Changes (National Bureau of Statistics of China).

4. The *zhuchanshi*, literally "delivery assistant professional" is the designated caregiver for labor and delivery in modern China. There is significant variation of training for these practitioners, but the standard is 2–4 years of post-secondary training in obstetrics and gynecology. Depending on their training and work location, *zhuchanshi* may conduct abortions and cesarean deliveries in addition to normal vaginal deliveries. The term is sometimes translated as "nurse-midwife", however, the *zhuchanshi* is a medical profession steeped in the biomedical interpretation of birth and has adopted none of the beliefs commonly associated with nurse-midwifery in the US, including "trust" in the birthing process and personal attention to the birthing mother. We leave it untranslated throughout this chapter.
5. TENS, or Transcutaneous Electrical Nerve Stimulation, has been used successfully for years to treat postoperative and chronic pain. It has recently also been shown to be effective in reducing labor pains (Simkin 2001: 123).
6. The "barefoot doctor" or *chijiao yisheng*, refers to a rural health worker with basic training. The term is often associated with the Cultural Revolution, during which time over a million barefoot doctors were trained and sent throughout the country to help increase peasants' access to basic medical care while also gaining Party control over the population – special emphasis was placed on birth control procedures (IUD insertions, abortions, and sterilizations) and maternity and infant care (White 2006).

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Childbirth Among Hong Kong Chinese

Ip Wan-Yim

Hong Kong is located at the southeast tip of China and has a population of approximately seven million. She is a major international city with a unique blend of cultures of the East and the West. Although more than 95% of Hong Kong's population is Chinese (Census and Statistic Department 2008), Western medical therapies are dominant. This situation illustrates a significant shift in Chinese culture over the years. The elder generation of Chinese mostly adheres to traditional rituals and customs dominated by Confucianism that emphasizes a harmonious relationship with nature. However, the younger generation may tend to relinquish the Chinese heritage or embrace a fusion of the Chinese and Western cultures in their daily lives (Giger and Davidhizar 1995).

Patriarchal extended family orientation is dominant in the older generation but not for the younger generation. Nuclear families including parents and minor children are the most common family organization found in the new towns of Hong Kong. Men and women share equal opportunities for higher education and employment. Thus, there are increasing numbers of full-time working mothers. Men are more actively involved in partners' pregnancies; they attend childbirth classes, are present at the birth and share newborn care (Lee et al. 2001). Nevertheless, the majority of the parents in Hong Kong have to juggle between multiple roles and demands from the society such as finance and personal relationships. Therefore, the process of childbearing in Hong Kong society mingles with socioeconomic and cultural dimensions other than just the physical strain of pregnancy and birth.

Hong Kong has the lowest fertility rate in the world as a result of delaying marriage and the increasing prevalence of spinsterhood. According to the statistical figures, the rate had dropped from 2.48 children per woman in 1976 to 1.02 in 2007 (Census and Statistic Department 2008). The increasing number of unmarried women and men has threatened the population's natural growth and the mean marriage age for women has also been deferred from 26.9 in 1996 to 28.3 years old in 2007 (Census and Statistic Department 2008). Nevertheless, childbearing is highly

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valued in a mature family in Hong Kong, as pregnancy means inheritance of the father's name, which is a significant responsibility for men in every family.

Taboos During Pregnancy

In Chinese culture there are taboos in pregnancy that manipulate social behaviour. Pregnant Chinese couples tend to be reserved about the good news of their pregnancy. In particular, those who have had experiences with abortion are somewhat secretive about pregnancies. Thus, it is a common practice to withhold the good news until after the first trimester. They believe that the early disclosure within the first trimester may threaten the stability of the pregnancy. In addition, Chinese elders may share superstitions regarding pregnancy with expectant mothers, often warning pregnant women to avoid attending funerals, redecorating or moving into a new residence, as these activities are believed to result in birth defects (Wong et al. 1995). Furthermore, the theory of Yin and Yang or cold and hot foods dominate food choices during the childbearing period (Giger and Davidhizar 1995). During pregnancy, Chinese women avoid eating food with yin qualities – raw and cold food in early pregnancy – as they believe the food is associated with miscarriage. The elders also believe that seafood, goose, carp, and snakes should not be included in pregnant women's diets as they can cause newborn skin problems.

Childbirth Classes

Pregnant women have no problem getting access to prenatal check-ups and care in Hong Kong. Most obstetric units in Hong Kong's hospitals and government-run Maternal and Child Health clinics provide antenatal and postnatal childbirth education classes for women and their partners. Most of the pregnant women attend one to two antenatal classes to prepare for their birth. They find the content of the antenatal classes that focuses on alleviating anxiety the most useful and they also seek more information on Chinese medicine during their pregnancy and postnatal period. Working pregnant women tend to obtain information about birth from the Internet, books and their female family members (Ip 2005).

Childbirth Practice

Childbearing is viewed as a time of vulnerability and risk rather than a normal physiologic process for the majority of women. All deliveries in contemporary Hong Kong take place in westernized medical hospitals and home birth is no longer a legitimate practice. The dominant model of care in most of the obstetric units is medical interventions that support the active management of labour. For example, labouring women are not allowed to eat and walk around in the labour room. They have to lie on a bed fastened with continuous fetal electronic monitoring. Besides, episiotomy is routinely carried out for every primigravida [first time mother].

Midwife-nurses, the main caregivers for women who are at low risk, conduct deliveries independently and provide care for newborn infants. However, the identity of the midwife-nurse as an independent practitioner in clinical practice is not recognized by the hospital's governing body in Hong Kong. Midwives are expected to work according to the obstetrician's instructions, with the focus mainly on physical aspects of care. As a result, midwife-nurses are more involved in task-orientated situations rather than attending to the psychological and individualized needs of the labouring women (Ip 2000). In a study of 30 Hong Kong Chinese first-time pregnant women's perception of support from midwives during labour, Holroyd and colleagues (1997) found that Chinese women held midwives in high regard for their emotional and informational support. This support, giving "praise" to Chinese women in labour and keeping them informed about their progress, was considered very important (Holroyd et al. 1997).

Father's Involvement

Chinese women appreciate the companionship provided by their husbands during labour (Ip 2000). Under the strong influence of Confucian and Taoist philosophy, which emphasizes harmonious relationships among family (Leininger and McFarland 1995), Chinese people value strong and cohesive bonds among family members. Women expected more emotional support from their husbands or significant others than from health professionals throughout the childbearing period (Ip et al. 2003). However, not all hospitals in Hong Kong allow husbands to stay during the labour and birth process. They even ask the husbands to leave their wives whenever there are any medical investigations such as vaginal examinations. Furthermore, Ip (2000) stated that fathers were not well prepared to provide effective practical support that met their wife's needs during labour. Although fathers may prepare themselves better for their role as a coach in the labour room, they often succumb to severe stress in the real situation. In particular, they often become helpless because of their wives' experiencing labour pain.

Childbirth Coping

In facing unknown and unexpected environments and people, women have a certain level of anxiety during labour. Nevertheless, they seldom make requests but follow the routine care as prescribed by medical personnel. Bond (1994) explained that Chinese seldom expressed strong reactions to emotionally arousing events, as they were culturally reluctant to express emotions. Chinese women focus mainly on the safety of their babies (Cheung et al. 2007; Holroyd et al. 1997) and seldom participate or interfere with the health professional's decision on the use of obstetric intervention during labour (Ip et al. 2003).

The preferences for methods of pain management are similar to those reported in studies undertaken in the United States (Albers 1998), which indicated that breathing and narcotic injections are the commonly used methods adopted by women for

pain-relief during labour (Ip et al. 2003). Touching as a means of comfort to western women in labour may not be applicable to Chinese women. The Chinese are not a "touching" people even with people of the same gender. Eye contact is brief. Thus, health professionals need to be aware of the feelings of the woman towards touching and give explanations whenever physical assistance is provided (Holroyd et al. 1997).

Cesarean Section

Like other well-developed Asian countries, Chinese couples in Hong Kong tend to give preference to an elective caesarean section for an uncomplicated pregnancy. This trend has been fuelled by the diminishing birth rate in Hong Kong (Census and Statistic Department 2008). From 1987 to 1999 the overall annual caesarean section rate rose steadily from 16.6 to 27.4 per 100 hospital deliveries, resulting in a 65% increase over 12 years (HKCOG 2003). Among the various contributing factors (Leung et al. 2001), the major reasons for the increased rate of caesarean section are the desire to ensure a perfect birth outcome, cultural preference to medicalization as a sign of affluence, concern over neonatal morbidity and a belief system based on fortune (Lee et al. 2001; Sin and Tang 2001).

One of the reasons given for caesarean section was the influence of a Chinese traditional folk belief having to do with fortune and childbirth practice. Many Chinese believe that a person's fate is largely determined by the hour, the day and the year they are born. A local study (Lee et al. 2001) found that Chinese women's decision in choosing a "lucky day" for cesarean section were usually determined by their husbands or mothers-in-law. They generally prefer having deliveries on "lucky" days of a lunar year. Thus, it is common to have "baby booms" in a lunar year, such as that of the Year of Dragon. It is believed that babies born in such years will inherit health, dynastic nobility, and longevity. Such a baby boom was exhibited in Hong Kong in 1988 (a Year of the Dragon). There were 5000 additional births as compared with that of the years 1987 and 1989 (Hong Kong Department of Health 2007). In fact, lunar birth fluctuations have been documented among a variety of Asian societies with Confucian belief origin. Elective caesarean sections are usually scheduled on these "lucky days" (Lo 2003).

Doing the Month

Chinese mothers are expected to "do the month" in the first month after delivery. This tradition acknowledges the contribution of new mothers to family continuity. According to traditional Chinese medicine, childbirth may result in a disruption to the *Qi* (often translated as vital energy or life force). The disruption causes a transient imbalance of yin and yang in a postpartum mother's body and thus compromises their health in the long run. Therefore, it is crucial to regulate Qi back to a balanced state in the first month after delivery. Chinese postpartum women comply with a specific set of practices in the 30-day postpartum convalescence period during

which the women is confined to the home to take care of her baby and get plenty of rest. It is also important for the mother to avoid a set of customary practices, as they are believed to create an imbalance of Qi (Holroyd et al. 1997). For example, mothers are discouraged to move around and avoid being blown by the *Feng* (i.e. wind). In Chinese cultural belief, wind is believed to undermine the balance of Qi. Thus, mothers have to use boiled ginger water instead of tap water for personal hygiene and domestic washing in order to prevent "wind" from entering into their body joints via the "opening of pores after delivery" (Chu 1993; Leung et al. 2005).

Postpartum women practicing this ritual eat a specific yang or tonic diet to enrich and nourish the blood, increase Qi and minimize the entry of cold-wind during the postpartum period. The tonic diet includes chicken, ginger vinegar with pig's trotters, dates and wine. The "cold foods" postpartum women must refrain from are fruit, raw or cooked vegetables including cabbage, bamboo shoots and turnips (Holroyd et al. 2004).

According to Holroyd et al. (2004), "doing the month" in some form or other is still widely practiced by the younger generation of Hong Kong Chinese women. They also reported that some Chinese young women, however, were reluctant to follow the traditional cultural practices at home. Nevertheless, they gave some semblance of adhering to the custom mainly because of pressures from their female relatives. Thus, it has been well documented that female relatives, in particular the women's mother or mother-in-law become a motivating force to sustain a customary practice among childbearing women (Holroyd et al. 2004).

Postpartum Adaptation

It is a common phenomenon that both mother and father work outside the home in a Hong Kong Chinese nuclear family. Thus, the couple's parents or an employed maid is often the key person for taking care of the baby. Research indicates that the mother-in-law may stir up conflict with the women because of divergent opinions on the care of the newborn in the postpartum period. The major argument between the parties is the method of child care, such as whether to pick up the baby when the baby cries, or whether to pat the back to bring up "wind" after feeding (Leung et al. 2005). Therefore, most women prefer seeking support from their maternal mother rather than their mother-in-law. Nevertheless, the husband or partner's support in recognizing the new mother's feeling and respecting her preferences is crucial to the transition of a new motherhood.

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Childbirth in Korea

Sukhee Ahn

Pregnancy

Preference for Boy Babies

Traditionally, Korean culture is hierarchical, and the man is the most important person in the family. The Korean woman is submissive to her husband and her husband's family, particularly her mother-in-law. Long ago, it was very desirable to give birth to boys who were treated with special care; this was especially the case for the first-born boy. To have only girls was not only grounds for divorce, but a surrogate mother might have been sought to provide the family with a male child (Byen 1989). This was common to many cultures in Asia. Under the patriarchal family system, only a male child can succeed in a direct line (Encyclopedia Britannica 2008).

During pregnancy, many prayers are said in the hopes of giving birth to a boy. A cross-cultural study on pregnancy and childbirth practices reported that Korean mothers and grandmothers tended to believe in the supernatural aspects of having a baby boy (Min and Yoo 2003). There were also differences in the traditional baby delivery culture between young mothers and grandmothers (Yoo and Min 2000). More grandmothers (68%) believed in a supernatural being who influenced pregnancy – "grandma Sam Shin" – and the gender of the child than did young mothers (54%). While 50% of grandmothers expected to have a son for their first-born baby, only 25% of young mothers did. Nowadays, this belief is weakening, and more parents-to-be say that having either a boy or girl does not matter.

Tae-Kyo and Tae-Mong

Tae-Kyo is the belief that a Korean pregnant woman should look, listen, think, and focus only on that which is good, beautiful and desirable, because this will influence

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the shape and features of the baby. In regards to diet for example, pregnant Korean women are instructed not to eat "broken" things, such as broken crackers or cookies, and not to eat things with blemishes. They are instructed not to eat certain types of animals. They do not eat duck, for example, for fear their child will have webbed feet, and they do not eat tofu, because it easily falls apart, which might mean a weak child. And they do not look at dead flowers or animals. Another meaning of *Tae-Kyo* is an emotional exchange between mothers and their unborn babies. There are a variety of methods of *Tae-Kyo*, using talking, music, storybooks, food, yoga, meditation and so on. Kim et al. (2006) report in their study that pregnant women said that the purpose of *Tae-Kyo* is to have a healthy body and mind, and to support a desirable personality formation in their unborn babies. The practice of *Tae-Kyo* occurs in the context of family and society. In the family, the most popular prenatal care is talking and telling stories to the fetus and listening to music, and recently, mothers use the Internet or programs offered by various social communities (Ahn 1993). The effectiveness of *Tae-Kyo* has been confirmed by scientific research (Park 1994), so an interest in *Tae-Kyo* is increasing. Now there are study groups and various kinds of *Tae-kyo* music, books and magazines.

Another belief comes from the Korean myth that says that if the mother, or her husband, parents or parents-in-law, dream of flowers during the pregnancy, she will have a boy. If they dream of fruit, the baby will be a girl. This kind of dreaming is called *Tae-mong*. It gives the family an expectation about the unborn baby and a sense of physical and psychological preparation for delivery (Yoo and Min 2000).

It is not traditional to have a baby shower in Korea. Koreans believe that doing something for an unborn baby may bring it bad luck. Another reason is that parents do not know whether this baby will survive or die, as was the case long ago. So they just wait until the baby is born and then they have a big celebration for the baby's first 100 days and first birthday. In addition to traditional Tae-kyo, regular prenatal check-ups are common.

Prenatal Check-Ups

In Korea, the rate for prenatal check-ups is close to 100% (Kim 2006), and most women prefer to receive them at university hospitals' OB clinics, women's hospitals, or local Ob-Gyn clinics. The fee for prenatal check-ups is not covered by health insurance. Several institutions and midwifery clinics offer extra prenatal education such as Lamaze classes and prenatal education classes. Some women attend public health centers located in each province and district in the cities. The public health centers provide free prenatal check-ups, iron supplements, and prenatal education. Most women give birth at the clinic; less than 1% give birth at home, a midwifery clinic or a birth center (Kim 2006). The reason why women prefer a hospital setting is that they think hospitals are safer and more comfortable for childbirth and postpartum than midwifery clinics. They think midwives are women who help delivery with no certification or license. However, it is not true. A midwife has two licenses, for nursing and midwifery, and she can help natural

childbirth by providing family support and prenatal and childbirth education and postpartum care.

Prenatal and Childbirth Education

Childbirth education is considered a key component to prenatal care, although many women do not receive any formalized preparation. There are multiple models of childbirth education both within health care settings and external programs, such as Lamaze and Bradley. However, no special forms of prenatal and childbirth education were available in Korea until westernized medicine and nursing introduced the importance of prenatal and childbirth education. Nowadays many prenatal education classes and materials are available, so that many pregnant women obtain some level of knowledge about self-care during pregnancy. The resources are prenatal education classes, books, the Internet and magazines, in addition to information from their parents, relatives, neighbors, and friends. When women realize that they are pregnant, some of them start studying what to do during the pregnancy. And then they practice things such as giving up smoking and alcohol drinking, doing regular exercise with careful physical activities, and eating more nutritious and well-balanced foods. Some couples attend prenatal and childbirth education classes to obtain accurate information and prepare for labor and delivery. Most of the students are women in their first pregnancies, since they have no experience of labor and higher levels of anxiety for labor and delivery (Park and Kim 2000). Educators are nurses, nurse-midwives, and childbirth educators. The primigravidae (women pregnant with their first baby) report a decreased level of anxiety after participating in prenatal education programs (Kim 2005). Qi *Tae kyo* and *Qi*-exercise, *Tae-kyo* class, and breast-feeding classes are available at local centers and some clinics. One study reported that a *Qi Tae kyo* program decreased the level of prenatal depression in pregnant women (Lee et al. 2006). Pregnant women have various experiences with and/or without their partner during pregnancy.

Pregnancy Experience

One study investigated the types and seriousness of pregnancy-related physical and psychological symptoms (Kim et al. 2004). A sample of 77 couples reported that the mean score of perceived physical symptoms was higher than the mean score of psychological symptoms for both pregnant women and their spouses. Another study investigated the personal experiences of the coping process during pregnancy for single mothers (Yang et al. 2008). Data were collected from 17 single mothers in a social welfare facility. Categories included: escape from a miserable family, defenseless state of pregnancy, heartbreak at being alone, isolation, stigma, the need for support and protection, helplessness, feeling of loss and conflict. “Being driven over the edge of a cliff” was the key phenomenon which the single mothers experienced during their pregnancies. Support and counseling are needed.

Labor and Delivery

Labor Supporter

Traditionally, home delivery was common before labor and delivery was covered by health insurance in 1975 (Kim 2006). The mother-in-law usually stayed with the mother-to-be during the entire labor process; this was because women used to live with their parents-in-law. The most common delivery assistant for the grandmother's generation was a midwife (33%), followed by a doctor (27%) and relatives or friends (23%), while most of the current generation were delivered by doctors (96%) (Yoo and Min 2000).

Today the nuclear family is common and pregnant women choose to deliver in the hospital. Many hospitals and clinics offer a family room for labor and delivery. In the past, women experienced labor pain alone and delivered their babies on their own without family support. Now the labor supporter is usually a health care professional, although the mother, mother-in-law, or husband can also be present. In most cases, the husband stays with his wife during labor and delivery or stays in a waiting room until the delivery is over (Yoo and Min 2000). However, the husband's role is very limited because men usually do not attend prenatal and childbirth education classes so they haven't enough knowledge to do something for their wives to help relieve labor pain. In contrast, some husbands who attend childbirth education provide excellent support and help and actively participate in labor and delivery. In this case, the husbands reported lower levels of anxiety and greater satisfaction about labor and delivery and had more positive birth experiences compared to those who did not attend childbirth education (Jeon and Yoo 2004).

Labor Pain Control

Korean people are stoic by nature. Women do not express pain during labor and delivery, and some believe that they must go through labor naturally (Chung and You 1998). Some women decline pain medication and tend to tolerate pain as much as they can.

Methods to Decrease Anxiety

Several alternative and complementary therapies have been used to test the effect on labor pain and labor progress. A literature review found that music therapy, breathing methods, aromatherapy, and acupressure were effective at relieving anxiety in laboring women (Cho 1998; Lee 2003; An 2008). For example, a study explored the effect of San-Yin-Jiao (SP6) acupressure on anxiety in laboring women (Lee 2003). The experimental group received SP6 acupressure for the duration of each uterine contraction over a period of 30 minutes, and the control group received SP6

touch. The anxiety score increased less in the SP6 acupressure group than in the SP6 touch group. In other research, Hur et al. (2005) provided aromatherapy to laboring women. The study showed it had no effect on relieving labor pain or uterine contractions.

Episiotomy and Power

Episiotomy[1] is now a common practice in the delivery room. Although there are many disadvantages in performing an episiotomy, it is still a routine procedure in Korea. Most women do not know whether they can ask the doctor not to perform an episiotomy, and they suffer from episiotomy pain during the first week of postpartum (Yoo and Kim 2001).

Women have a right to choose whether to have an episiotomy or not. Women health care providers have a responsibility to do consciousness raising, to empower women so that they can choose medical treatments for their health and wellbeing and the quality of their lives.

Postpartum

Postpartum Care

Most women receive care for postpartum recovery (*San-ho-jori*) at their own home, their mother's home, or in a special care place. After the birth of the baby the mother does nothing for 21 days except eat, sleep, and nurse the baby (*sam-chil-il*). Traditionally, it was the mother's mother who took care of her after the birth. The new mother did not bathe and remained as warm as possible. Women wore long sleeve shirts, pants, and socks, and used a lot of blankets, regardless of the season. They did not allow any breezes or drafts to enter the room. Today, personal hygiene, including teeth brushing and showering with hot water, is allowed. Even in the hot summer time, women are not allowed to use or be exposed to air conditioning. They do not wear short sleeves or use a fan. It is considered that cold air can make the women's body cold which might generate an illness in their later life (Yoo 1995).

These days, the mother's mother or mother-in-law takes care of new mother after childbirth. However, some women choose to go to a "special care place" (*san-ho-jo-ri-won*) for 2 weeks or as long as a month. In these places, women just take care of themselves; hired nurses and nurse-aids care for the baby. All that is required of the women is that they breastfeed their babies.

Mothers were supposed to eat only hot foods because after childbirth the woman was considered "cold". Hot tea and seaweed soup were eaten for 4 weeks to rid the body of toxins and to cleanse the blood. Seaweed is the perfect way to get calcium and iron for postpartum mothers.

Breastfeeding

Breastfeeding is emphasized for postpartum women to help their bodies return to their pre-pregnancy status as well as providing the best nutrients for their infants. Lactation consultants are also available at the postpartum nursing unit and help mothers breastfeed and provide direct service to mothers who have problems. However, there are not many places available to breastfeed in public areas, so women hesitate to breastfeed when they go out.

Postpartum Care

In Korean culture, postpartum care is a special thing for the woman and her family. We honor and give elaborate attention and consideration to our pregnant and postpartum mothers. Recovery is essential to their future and the future of their babies, and we believe it is a big job to give birth to a child. Therefore, these women are respected and given a lot of time to heal.

Note

1. Episiotomy is a surgical procedure for widening the outlet of the birth canal supposedly to facilitate delivery of the baby and to avoid a jagged rip of the perineum (the area between the anus and the vulva, the opening to the vagina).

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Childbirth in Japan

Satoko Yanagisawa

Modernisation in Japan has changed the modes of childbirth dramatically – from home delivery surrounded by family members to delivery in a hospital in a bright clean room surrounded by medical professionals. However, Japanese women and their families still maintain cultural traditions in modified ways. Tradition and modern medicine exist side by side in contemporary Japanese childbirth. This chapter describes the changing childbirth scenario in Japan – its history, its current situation, and its future trends.

The trend I describe here focuses on events after World War II – not old myths but the living history of a contemporary people spanning three generations. In the first part of this chapter, I describe both the changes that have occurred in the environment of childbirth and the traditions that have vanished with the change. In the second part, I present the remaining rituals that have been modified in the contemporary context and the rise of the new tradition of medicalised childbirth. The third part explores the efforts made by both women and midwives to bring back "birth power" to women. Lastly, I describe future issues arising from the current social and medical changes.

From Community Rituals to Medical Issue: Historical Changes in Japanese Childbirth

Medicalisation of Childbirth

In the past, childbirth was a part of daily life and took place with the mutual help of family and neighbours. Although the history of professional birth attendants – a type of midwife and obstetrician – who were known as *sanba*, can be traced to at least the eighth century, access to these professionals was limited to royalty and the

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privileged (Imazeki 1997). For lay people, the birth attendants included the pregnant woman's family, relatives or experienced neighbours.

Since then, Japanese childbirth underwent three important changes (Shirai 1998). The first was in the Edo era, from the 17th to 19th centuries, when being a birth attendant became a profession, and the pressure of the increasing population entrusted to them the role of a birth controller. The second change began at the end of the 19th century when traditional birth attendants were gradually replaced by trained "modern birth attendants (*kindai-sanba*)" (Yumoto 2000). The third was after the Second World War, when childbirth was shifted from the home to the hospital.

The third change was characterised by three dimensions: change in the birthplace, change in birth attendants and the introduction of medical procedures into normal childbirth (Shirai 1999). Figure 1 shows the change in birthplace from 1950 to 2003 (Ushijima et al. 2004). In 1950, 95% of births took place at home, while in 1970, more than 95% of deliveries were performed at medical institutions. Midwife-run maternity homes played a transitional role from home delivery to institutional delivery; nonetheless, their influence was not significant. Currently, 98–99% of childbirths occur at either hospitals or clinics. Women prefer big hospitals to small clinics because of the impression that the former would have better technology. However, this trend is now slightly reversing with the emergence of value-added obstetric clinics.

In synchronisation with the change in the birthplace, the role of the birth attendants shifted from midwives to medical doctors. Figure 2 shows the change in birth attendants (Maternal and Child Health Section Ministry of Health and Welfare 1969; Health and Welfare Statistics Association 1996). In the mid-1960s, the rate of midwife-attended deliveries and that of deliveries attended by doctors reversed. However, this does not mean that midwives completely stopped dealing with deliveries. They continue to be the chief attendants at normal deliveries. Now, however, medical doctors are always available and are called upon at the time of the actual birth of a child. Therefore, childbirth is considered to be attended by doctors.

These two changes introduced medical procedures into the process of childbirth. Prior to these changes, hospitals were a place where only women with an abnormal

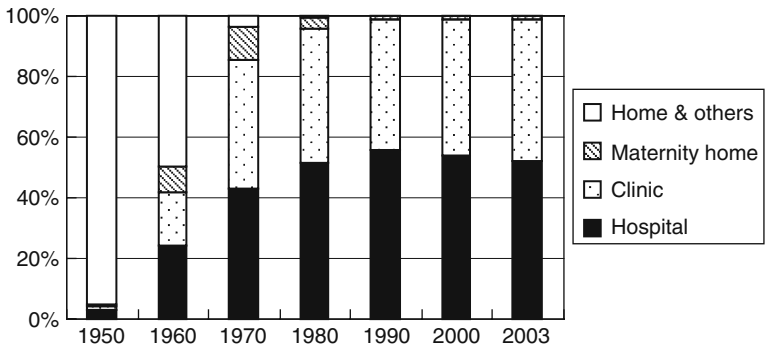

Fig. 1 Trend of delivery place in Japan 1950–2003

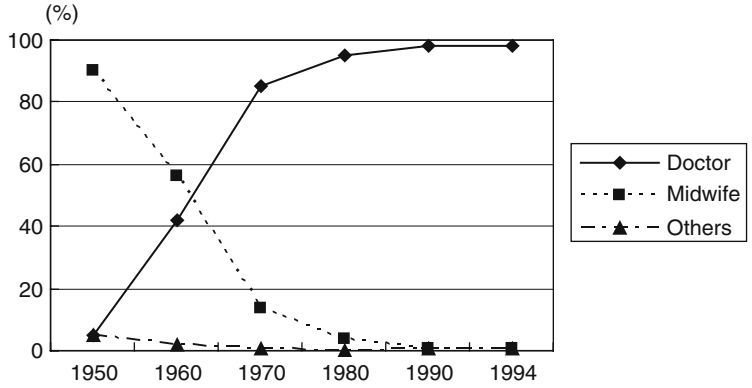

Fig. 2 Trend of birth attendants in Japan 1950–1994

course of delivery and complications visited. With the shift of childbirth to hospitals, medical doctors introduced procedures such as episiotomy[1], use of uterine stimulants, ultrasonography and foetal heart rate monitoring even in normal deliveries. The traditional sitting position for delivery was changed to the supine position because performing these procedures is easier for the doctor in this position. The medicalisation of childbirth progressed rapidly after the Second World War (Kobayashi 2008).

Vanishing Traditions

At the present time, we have the last generation of those who experienced childbirth before the War. Their narratives enable us to realise the traditions that we are losing.

One of the vanishing traditions is the role of the community in childbirth. Before the changes in childbirth occurred, childbirth was not only a family matter but also a community matter. Neighbours extended help to the mother with childbirth by preparing the room, boiling hot water for the baby's first bath and dispensing advice to the mother. After the birth, they also joined in the various ceremonies.

In some parts of Japan, after delivery, women stayed together at the *Ubugoya*, the childbirth hut (Miyanaka 2007). The Ubugoya was a hut built specifically for women in labour or after delivery, and it was generally built on the outskirts of the village. Women went there before labour began and delivered babies there. In some regions, women delivered babies at home, went to the Ubugoya with the baby and spent approximately a month there. The first-comers taught the late-comers how to take care of babies. Men were usually not allowed to enter the Ubugoya.

The establishment of the Ubugoya was considered to be related to the concept of being "clean and unclean". Childbirth was considered unclean because of bleeding. Women were sent to the Ubugoya so that they would not transmit the uncleanness to others. For the same reason, in some regions, women also spent time at the Ubugoya during menstruation. Another view considers that the Ubugoya was a place where

the woman and the baby could hide themselves from ghosts and evil spirits. After the delivery, the mother and the newborn baby were considered to be vulnerable to ghosts who could take away their lives. Old people believe this to be the reason for building the Ubugoya far from the village centre.

Whatever the reason might have been, the Ubugoya was a place of rest for women. They would have otherwise had to work hard in fields or do household work; however, by being in the Ubugoya, they were exempted from daily work and could concentrate on taking care of the baby. In the Ubugoya, there were no strict mothers-in-law or noisy neighbours. Older and experienced mothers also taught childrearing knowledge and skills to the others. Old women often recall the time spent in the Ubugoya as a happy one.

Another vanishing tradition is the role of the midwife as a god-mother to a baby. In the old days, midwives were not merely birth attendants but shared a continuous relationship with the families of the babies they delivered. A baby was considered to be transferred into the human world by a god. A midwife was the person who made this event happen. By assisting childbirth, she played a religious role in guiding the baby from the gods' world to the human world and giving social recognition to the baby as a member of the community. Therefore, her authority was not only based on her medical knowledge and skills but also on religious reasons. She was given the position of god-mother to a baby and was invited to the various rituals following the birth. The family of a baby might have maintained connections with a midwife for a long time, for example, by visiting her at the time of the child's entrance to a kindergarten or a school. A midwife lived in the community watching over the child's growth (Fig. 3).

Fig. 3 An old midwife who has delivered more than 1,000 babies. Used with the permission of the photographer

Shirai (1997), while studying old midwives, observed that old midwifery followed values of aesthetics and etiquette. Gradually, these values changed to safety and hygiene. The above-mentioned traditions and values are surely vanishing. However, certain rituals still exist although their religious connotations are lost. New customs and myths are also arising. The next section deals with contemporary rituals in childbirth.

Birth Rituals in Today's Japan

Remaining Traditions

Japanese women still observe certain rituals and customs related to pregnancy and childbirth. The following are some of the common traditions.

Obi iwai or *Chakutai iwai* (belt celebration) is a ceremony praying for an easy delivery. A woman wears a white cotton sash around her abdomen while blessings and prayers are said (Fig. 4). Some families also visit a Shinto shrine for a prayer, followed by a celebration dinner at home with extended family members. Alternatively, the family goes to a restaurant as a special treat.

This ceremony is held on the day of the dog in the fifth month of pregnancy. (According to the Chinese lunar calendar, each year or day is attributed to one of twelve animals.) The day of the dog is chosen because of the old belief that dogs are

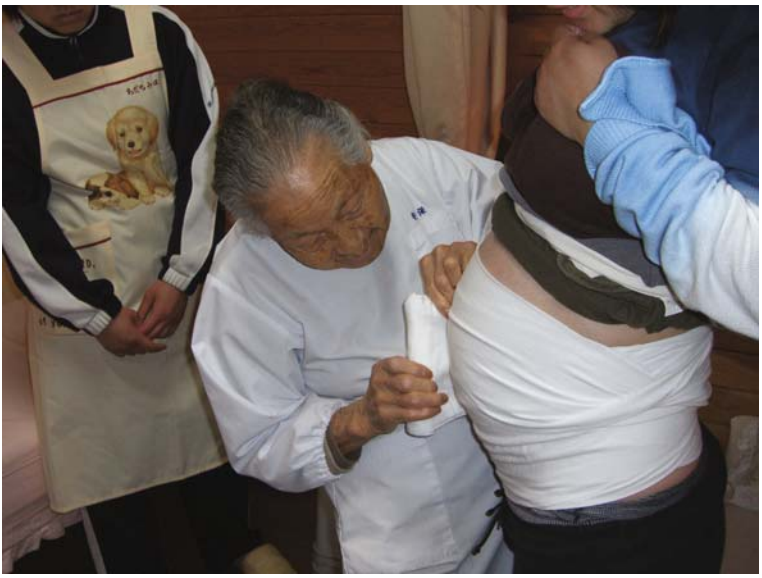

Fig. 4 A midwife tying a traditional sash on a pregnant woman. Used with the permission of the photographer

prolific and their childbirth is easy. This sash is worn only for the ceremony. After the ceremony, women usually wear Japanese-style maternity girdles. The girdle is believed to protect the foetus and the mother's abdomen from shocks and cold.

Japanese women delivering a baby abroad sometimes ask medical staff to preserve the baby's umbilical cord. These women are often surprised when they are given a long umbilical cord cut from the placenta because what they mean is the part of the umbilical cord attached to the baby. After the baby's umbilical cord dries up and drops off from the navel, his/her mother keeps it, often in a wooden box, until the baby grows to adulthood. When a boy grows up and becomes independent or when a girl marries someone, the cord is handed over to him or her. Traditionally, when the child fell sick, the preserved umbilical cord was believed to be effective in curing the sickness. People would cut a small portion of the cord, prepare and administer it to the child. If one lost his umbilical cord, his fate was considered to have become unlucky or it was an indication that he might fall ill later. Nowadays, the spiritual meanings are mostly lost; however, some Japanese hospitals still give a wooden box to new mothers as a keepsake (Fig. 5).

The tradition of *Satogaeri* (going home to her parents) delivery is still common in Japan. Pregnant women go back to their parents' homes before the delivery and stay there through the delivery and the postpartum period. The duration of Satogaeri is generally 1–3 months. When the woman is staying with her parents, her husband often visits her. Satogaeri has its merits as well as its problems. The merits are that women can relax and get help from their own mothers. They can concentrate on the delivery, taking care of the baby, and rest, while their mothers do all the

Fig. 5 Dried umbilical cord kept in a wooden box with longevity symbols, a crane and a turtle. Photo by the author

household work. Its difficulties include discontinuity of health care, travelling over long distances in the third trimester of pregnancy, and lack of a relationship between the father (the husband) and the baby.

New Myths

When we closely observe Japanese childbirths, we tend to think that they are completely modernised and that Japanese childbirths are identical to those in the developed world. However, reports from overseas reveal that Japanese childbirths contain unique features based on what we believe to be scientific. These features are the results of myths in the era of technology.

Researchers in the United States reported a belief of Japanese pregnant women regarding ultrasonography (Yeo et al. 2000; Ito and Sharts-Hopko 2002). In Japan, a foetal sonogram is performed upon a pregnant woman at each prenatal visit. Mothers as well as obstetricians believe that ultrasonography allows the monitoring of the normal development of the foetus. Therefore, when Japanese pregnant women observe that ultrasonography examinations are less frequent in the US, they feel anxious about foetal growth.

Episiotomy is another provider-induced belief. Numerous hospitals in Japan perform episiotomy on all primiparas [first-time mothers] regardless of the existence of medical problems. Some people believe that episiotomy shortens the second stage of childbirth and prevents perineal tears. Yeo et al. (2000) reported that a Japanese woman, who was a nurse, believed so deeply in the effects of episiotomy that she was dumbfounded when she found that episiotomy is not a routine procedure in the United States.

Japanese women value natural childbirth because they do not have a strong belief in medical technology (Yeo et al. 2000). This value is shared with midwives. Natural childbirth counters the medicalisation of childbirth. The belief in natural childbirth may result in refusal to take tablets including vitamin supplements or refusal for anaesthesia for the control of pain during labour. There is a notion that eating sufficient nutrients through natural food prepared at home is the best for promoting foetal growth. Women as well as their husbands also worry about the side effects of any medication and anaesthesia.

Women who have persevered through labour pain are socially valued. Mothers sometimes call their children, “my child born through abdominal pain”, indicating that he is precious to them. Persevering through labour pain is a kind of ritual through which a woman becomes a mother. Women often give positive meanings to labour pain and value it because it is natural. Medical personnel also share this value. In Japan, obstetricians generally do not recommend the use of anaesthesia during childbirth. They consider labour pain to be a sign of the normal progress of childbirth. They also believe that the pain promotes the development of the mother’s love for her baby (Tanabe 2006). Thus, both women as well as medical professionals believe in natural childbirth leading to the attitude of women that encourages the avoidance of medical procedures as far as possible.

Contemporary Childbirth: Birth Power

Most pregnant women today visit hospitals and clinics for a pregnancy test, and then continue going to the same institutions until delivery, unless they choose Satogaeri delivery. They follow the advice of obstetricians and midwives and often leave decision making to the medical professionals. However, a movement for restoring "birth power" to the woman is arising from both the women themselves and the midwives.

For women, this movement is arising through a quest for a "good childbirth" or a "unique childbirth". The falling birth rate in Japan has made childbirth a special event for a woman as well as her family. Women desire to make it unique and special. As mentioned above, the community has lost its role in childbirth. Freed from community traditions and the strong power of the mother-in-law, contemporary childbirth has now become solely a family matter, particularly important for the expecting couple.

Although they are small in number, there are women who choose alternative childbirth: delivery at a maternity home or their own home. In particular, women who are not satisfied with former births at hospitals and clinics try the local midwife, seeking ideal childbirth. Some women seeking ideal childbirth travel beyond the boundaries of their community, even distances that are more than one and a half hours from home. The development of transportation, expanded living space, and the fact that travelling long distances has become a part of everyday life have contributed to this phenomenon (Shirai 1997).

Mass media and the Internet have greatly influenced this trend. TV programmes and journals targeting pregnant women and child-rearing women present information regarding clinics and maternity homes offering special services such as a female obstetrician, good meals, aromatherapy, oil massage, Yoga, or home-like delivery with the presence of the husband and older siblings of the coming baby. Women also search the Internet and communicate with other pregnant women via mobile phones while seeking information.

Such a network of pregnant women is extremely important for the women themselves. However, unlike the communities in old days, women are loosely bound to each other. This network is not a community that they belong to but one that they can use when they need information and for resolving problems. Once the need is satisfied, many of these women do not want to be disturbed by others too much. Many women are not very confident about their ability to make decisions on their own. They worry that they may be isolated and want to get advice and recommendations from their friends and professionals. At the same time, they desire to maintain a certain distance from the information source so that it does not interfere with their private life. Based on information they receive, women together with their husbands choose the style of childbirth.

A majority of women, however, are not that aggressive in seeking their own style of childbirth. They follow the medical professionals' advice, similar to any other patient. Midwives are trying to intercede in this phenomenon from within the mainstream. Since the 1980s, midwives began introducing the concept of the birth plan to pregnant women (Ito 2004). Midwives asked women to write down what type of childbirth they desired: if they would like to have their husbands with them, if they

do not mind undergoing episiotomy or using uterine stimulants, if they want to listen to music during labour pain and delivery, or if they have any special requests such as aromatherapy or video recording. Thus, midwives help women to be an active part of their own childbirth.

Writing down the birth plan has a positive effect on many women. A majority of them positively imagine their childbirth and actively take part in it. However, several women feel that they have failed their childbirth when their plan is not completely realised. Since the number of childbirths that a woman experiences in her life has decreased, this feeling of failure can have a long-term effect on the woman. A discussion between the pregnant woman and the midwife is essential while making the birth plan regarding the realities and the possible risks involved.

Future Issues: Buds of Change

Currently, a shortage of obstetricians is an important issue that has been cropping up. Recently, TV news channels reported the case of a pregnant woman at the risk of spontaneous abortion who was refused admission by several hospitals because of the lack of obstetricians, resulting in the death of the baby. In rural areas, hospitals are closing obstetric wards, and obstetric clinics are also closing down for the same reason. Some hospitals refuse to receive Satogaeri deliveries because they are full of pregnant women from their coverage area. Although women's awareness of having a unique childbirth is increasing, their chances to achieve the same may be decreasing.

An obstetrician's work is not a matter of routine, and many deliveries occur during the night. The younger generation of physicians does not like to work long hours and prefers to preserve the night and weekends for their private lives. Furthermore, obstetricians are at a high risk of being sued as compared to those physicians treating the elderly or patients of internal medicine. Therefore, obstetrics is less popular among medical students.

Some hospitals have introduced midwives' examinations side by side with obstetricians' examinations. Midwives examine pregnant women including ultrasonography examinations and advise them accordingly. Other hospitals have opened maternity homes in their buildings. In-hospital maternity homes deal with normal delivery by midwives, but if a delivery goes wrong, the woman can be transferred to a ward immediately where obstetricians are waiting. This movement is, in a way, filling the gap between the demand and supply of obstetricians. Moreover, it is also a chance for women and midwives to bring normal childbirth into their own hands with fewer medical interventions and a more satisfactory childbirth while maintaining safety.

However, this encourages the notion that obstetricians have more authority and decision-making power regarding childbirth. It also risks what happened during the transition from home delivery to institutionalised delivery. During the transition, midwife-run maternity homes became popular, but it was just a transient popularity. The attention on midwives and the value of the alternative style of childbirth could be transient until such a time when more obstetricians are trained.

Japanese childbirth has been changing and will keep on changing. A new generation brought up with mass media and multimedia has different values and cultural norms from those of their grandparents' generation 50 years ago. Their preferences and lifestyles, together with the midwives' challenge to bring the birth power back to women, and the environment of obstetrics and obstetricians will determine the future direction of Japanese childbirth.

Note

1. Episiotomy is an incision into the perineum, the area of skin between the vagina and the anus, to enlarge the space at the outlet. It's stated purpose was to prevent tearing and make a neat cut.

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A Sacramental Theory of Childbirth in India

Harish Naraindas

In a country of more than one billion people, with 20 odd principal languages, about 225 dialects, and at least two principal religions, it is difficult to say anything about a phenomenon like childbirth that would hold true for the different regions and peoples of India. But what can be said is that about 65% of the births are at home in opposition to perhaps 3% in the United States. If we break this down into rural and urban, then more than 70% of births in rural India are at home with about 74% of the total population living in rural India. And two thirds of these rural births are attended by family and other forms of local experts, which in the current anthropological and public health literature are called either *dais*, or traditional birth attendants (TBAs). Both are omnibus terms meaning many things depending on the context in which they are used. This has led Sarah Pinto (2006) to argue that the Indian *dai*, cast in the image of the European midwife, as someone who attends to the pregnant woman, delivers the child, the afterbirth and does post partum work may not necessarily exist in one person, or not in one person at all times and in all regions of India. Even the general consensus that in "North India", (including Pakistan, Nepal and Bangladesh), the dai's main task is not catching the baby (any of the many women who attend the birth may do so) but cutting the cord and subsequently removing "the polluted and dangerous" placenta is contradicted by the fact that among the very poor the dai is virtually never called. If called, she does not necessarily cut the cord. Instead the cord is cut by the mother as otherwise the child may turn its affection towards the dai rather than the mother (Blanchet 1984).

The contemporary western equivalent of this so-called Indian dai is either the certified Nurse-midwife in a hospital or the independent lay midwife. Its Third World equivalent in anthropological literature is the midwife who is an independent, sagacious and skilful woman such as the Dona of Bridgette Jordan's work in the Yucatan in Mexico (Jordan 1978). She appears to manage the show from start to finish and catches the baby. In other words, public health literature explicitly, and anthropological literature tacitly, looks for the native version of the obstetrician

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who, rather than the woman, delivers the child. Hence, while the South Asian dai certainly exists, her image appears to be a late 19th century colonial creation, in so far as it is an amalgam of roles and functions all of which may not have been carried out by a single figure. There are broadly two opposed views of the dai in anthropological literature. In the first, She is not a particularly skilled menial worker whose main job is to remove the pollution of the birth and afterbirth (Jeffery et al. 1985, 1989; Rozario 1995a,b, 1998). The studies that question this (Chawla 1993, 1994; Ram 2001; Van Hollen 2003) see her as also a repository of skills. Other studies (Pinto 2006; Patel 1994; Blanchet 1984 and Unnithan 2002) de-centre the dai and show that the expertise of birthing is more widespread and diffused through the community. Blanchet's study offers an interesting typology of the dais or *dhatri*, and shows when and by whom they are called, and depending on who the dais are (in terms of caste, position in the life cycle, married status, etc.), what kind of roles they perform and skills they possess. But the dai is a necessary figure and is often depicted from the turn of the 20th century as a semi-barbaric figure with dirty fingernails and often associated with un-sterilised cord cutting. The TBA is a nomenclature created by post-war international agencies, especially the WHO (Pigg 1997; Van Hollen 2003). Both these figures have been the subject of vilification, reform, co-option, or all three, and most recently, as a reaction to a kind of quasi deification, though the last is still very much the fringe (Chawla 2006). These shadowy figures, and the fact that most women in rural India still give birth at home, have been touted as reasons for high infant and maternal mortality. This functioned as a necessary trope for both the colonial and the post-independent state, along with the biomedical fraternity and bilateral and multilateral agencies, to run a concerted campaign to put an end to home births and have women deliver in state-run health centres under the often mistaken assumption that they provide better health care. This campaign is currently underway in the name of "promoting institutional deliveries". One of the mandates of the newly constituted (2005) National Rural Health Mission is to promote institutional deliveries as a safe option for childbirth in India. This aim is consonant with the national socio-demographic goal of the National Population Policy adopted in 2000 according to which 80% of all deliveries should take place in institutions by 2010 (Padmanabhan 2008). Its current justification comes from statements such as these: "A large number of neonatal deaths take place at home" (World Bank 2004: 10, quoted in Haq 2008: 27). Or, a woman in India, as compared to a woman in the industrialized West, is 300 times more likely to die during pregnancy and childbirth (*Hindustan Times* 2009). And the reason for this large number of neonatal deaths at home is due to a "high dependency on the services provided by the untrained traditional dais" (Sandhya 1991: 91, quoted in Haq 2008: 27). Hence, between the causal space of the home (which from the late 19th century was seen as the ill lit, ill ventilated, segregated and sequestered space of veiled women, which not only killed children and women but harboured and fostered diseases like consumption), and the untrained and unclean hand of the dai, children died like flies in the first few days or weeks of pregnancy.

As early as 1994, Alpana Sagar, based on a detailed empirical and ethnographic study of an urban (Delhi) slum and a Kumaon village in the Himalayas, called this into question. Ehsanul Haq calls our attention to this by saying that Sagar quite clearly stated "that there is no evidence of infant mortality being high at home" (Haq 2008: 26). Haq then proceeds to demonstrate, what may appear to be a purely local and thus easily argued away claim by Sagar, that this is indeed the case for the whole country. Through the Government of India's National Family and Health Survey (NFHS) data (1992–1993), he shows that if one compares the home with the public health facility, which is where the poor go, neonatal mortality is exactly 48.4 deaths per thousand in both places in rural India. And in urban India the difference is not much greater with neonatal deaths standing at 34.1 at home and 31.3 in public health facilities (Haq 2008: 27). Despite these figures, produced by its own census department, the Indian State and multilateral global agencies like UNICEF and the World Bank continue to advocate for the extirpation of home births. By now we know the reasons for this advocacy from the large body of literature that has been produced on childbirth: (1) the male incursion (starting in 18th century Germany) into an essentially female domain in the form of the male midwife in the West; (2) the rise of obstetrics as a male profession; and (3) the export of disenfranchised female doctors from Britain to India in the late 19th century with the setting up of the Dufferin Fund, who not only came to India to practice medicine that they were largely unable to at home, but also came to deliver sequestered Indian women from the z*ennana* [the part of the house reserved for women]. If we add to this the post-independent discourse on population policy and the increasing pharmaceuticalisation of medicine, we have the new discourse of reproductive health, where childbirth becomes a significant moment to control poor women's fertility behaviour through contraceptive devices like the IUD, which are routinely inserted immediately after birth and often without women's consent (Van Hollen 2003). The end result is the evisceration of both the birthing woman and birth caregivers, with the former substantially robbed of her agency and literally made supine (lithotomised) and the latter vilified and reduced through the expropriation of their skills. This is not to say that there were not, and still are not, a whole range of other reasons such as urbanization and rural to urban migration resulting in the re-articulation of family, kinship and neighborhood networks and the movement from a village based patron-client network to a cash economy. This resulted in women's entering the workforce and in women seeing the hospital as a necessary substitute for the home. But the exercising of these choices is always enacted in the shadow of colonial/state/institutional campaigns that rearticulate women's reproductive behaviour to suit state interests.

We can see from this that the business of birthing in India and elsewhere is caught between these two poles: the evisceration of the woman and the midwife, which is an unfinished project; and the resistance to this project by birthing women and their caregivers by reaction, compromise and resuscitation, helped by concerned women, feminists, hippies, anthropologists and at times by the medical fraternity. If we compare America and India, we can see that this project is virtually finished in the US with only 3% of births occurring outside a medical institution, and it is still a largely unfinished project in India. But by the same token reaction (lay-midwifery),

compromise (natural childbirth through certified nurse-midwives in a hospital), and resuscitation (by the home-birth advocates) is strongest in America and virtually non-existent in India. If we add to this the people like the Amish and other conservative Christian groups in the United States that continue to practice home births like rural Indian women, and finally illegal agricultural workers in the United States who give birth in the fields by sheer necessity, then we can see that both this chapter and this volume on childbirth worldwide, are part of a larger dialogue on the business of birthing. Against this backdrop of the politics of childbirth and reproductive health, we will now see what birthing may mean in India, especially to those women, both rural and urban, who continue to birth at home, though much of what we will say may well apply to women who choose to have an institutional birth.

We will do this by first situating birth within the larger ambit of pregnancy and post partum work, and then within the further ambit of marriage and puberty. If this is the earthly pole, where birth as a rite of passage is caught up in a social field, we also need to situate this rite as mediating between this world and the nether world. The best way to capture both these poles is by situating birth within a theory of Hindu *samskaras* or sacraments. Rajbali Pandey (1969) has classified them into 5 groups: (1) pre-natal samskaras, (2) samskaras of childhood, (3) educational samskaras, (4) marriage samskara, and (5) funeral ceremonies (Pandey 1969: ix). Of these the prenatal samskaras are *garbhadhana* (conception), *pumsavana* (quickening of a male child), and *simontonnayana* (hair-parting). The childhood samskaras are *jatakarma* (birth ceremonies), *Namakarma* (name giving), *Niskraman* (first outing), *Anna-Prasana* (first feeding), *Chuda karana* (tonsure), and *Karanavedha* (boring the ears).

Another way of approaching this is to make a distinction between *vaidika* (scriptual) rites and *laukika* (wordly) rites. One example of this among the pre-natal rites is the one called *simontonnayana* (hair-parting), which is a vaidika rite and the *Valaikappu* (protective bangle), which is a laukika rite. The latter is performed by all castes from the Brahmins to the Dalits (in Tamil Nadu), while the former is largely performed by the Brahmins. Further, it may well be the case that what appear to be vernacular forms may be no different from the vaidika or other textual sources. With these caveats in mind, I offer a synopsis of some of the crucial moments in the business of birthing with the claim that their meanings may be best understood within a larger theory of Hindu sacramentalism.

While my own case material largely comes from Tamil Nadu in Southern India, I will attempt to make forays into other parts. I will further attempt to situate that narrative, where possible, on a global rather than a purely Indian canvas.

Birth as a Transformative Rite of Passage

In India, if a woman is not returned to her natal household, she may fall prey to being the barren first wife as her husband may marry again to produce an heir and ideally a male heir. It is only with the birth of a child that the woman truly moves

from her natal to her affinal home. If this is a male child, in contrast to the stillborn, missing, or female child, her incorporation calls for celebration.

This remark may not hold in most urban and some rural areas in 2009. What we have instead is assisted reproduction, sex selection, surrogate motherhood, female foeticide and adoption. But even if the husband does not remarry, the stigma of barrenness has consequences. In India, barren women even in educated urban circles, while not abandoned, may face a number of discriminations such as not being invited to prenatal pregnancy rituals.

Hence the birth of a child, and especially a male child, in a household with the means to afford it, may lead in certain parts of India (Rajasthan) to celebratory singing in the form of professional singers marking this transformative rite of passage. The unsaid (the missing, dead or female child), is marked by its opposite: the celebration of the live, present and male child (Rao 2006). In one of the Sohar songs sung by women in Rajasthan, the sister-in-law demands the new mother's gold bracelet, and when she refuses, saying that she brought it from her father's household (natal line), the husband's sister threatens to take away her child, which belongs, she says, to her brother's patrilineage (Rao 2006). The young mother on hearing this wordlessly parts with the bracelet, which may be read both as a bribe, and as a realisation that she has now crossed over from her natal to her affinal household and from one patriline to another patriline. This incorporation by no means marks the end of obligations to her natal household. They continue throughout her life: first by the father and then by the brothers and in some senses mark the fact that the woman continues to occupy a liminal position and is forever in exile from her natal house and in her affinal house, after marriage.

The Pre-natal and Post-natal Samskaras or Sacraments

If birth is thus an accomplishment and transformative rite of passage for the woman laterally from one patriline to another, it is also salvific if it is a male child. In the first post-natal samskara called *jatakarma*, the father walks in after the child is born and on seeing it immediately cancels his debts to his ancestors, preceptors and gods. In fact, the etymology of the word *putra* (male child) may be derived from *put* (naraka/hell) and *ra* (as the root of *raksha* meaning to guard, to save). Hence the *putra* is one who will guard or save the father and mother from going to *put* (naraka/hell), by performing their last rites and continuing with the *sraddha* (post funerary rites) that will ensure their movement from being a *pret* (unincorporated soul) to a *pitr* (incorporated soul or ancestor) by helping their soul to successfully cross the river of death.

For some, the first male child is important for the mother's incorporation into the nether world and the last male child for the father. It can be further argued that given the etymology of *putra*, it may simply mean child and is a generic form of address. Given a patrilineal society with patrilineal residence, the funerary rites necessarily devolve on the male child. It is also the case that women on their own may not

perform a sacrifice (*homa*) that involves the sacrificial fire (*agni)*, which for the Hindus and particularly the Brahmins is the fulcrum.

In any case given the fact that the child is a debt cancelling and salvific device, and is almost solely responsible for ensuring his parents' safe passage, it is not surprising that his potential arrival is greeted by a series of prenatal samskaras. They are *garbhadana, pumsavana* and *simanta*. The first is the rite that prepares the couple for conception, the second will determine the sex of the child, and the final one is to ensure that a healthy offspring is born.

While in all these rites the emphasis is on the anticipated offspring and his wellbeing, there is another set of rites where the emphasis is on the woman and her wellbeing. Among my Tamil informants it appears that most castes and classes perform the rites of *poonchuttal* (bedecking the woman's head with flowers) and *valaikappu* (valai/bangle; kappu/protection), which is like a mini wedding where the high point is getting the women to wear protective bangles. Both these rites are almost exclusively women's affairs, while the other three, and especially the *pumsavanam* and the *simantam* are vaidika rites that have textual sanction, involve a *homa* (fire sacrifice) and thus have an officiating Brahmin priest and are done by husband and wife together. While the non-Brahmins may not do the vaidika rites the Brahmins invariably do both. While in both the emphasis is on the wellbeing of the child and woman, the latter are clearly done to make the mother happy. Of these 4 rites, the *pumsavana seemantham* (vaidika or scriptural) and the *valaikappu* (laukika or worldly), are elaborate propositions depending on what every household can afford to do.

The *pumsavanam* is supposed to be done in the second or fourth month, the *poonchuttal* in the fifth or seventh month and the *valaikappu* and *seemanthan* in the eighth or ninth month, with different textual and oral sources for each of these possibilities. But today, especially in large cities and in Chennai in particular, all four rites are performed in the same day. Further, the two vaidika rites of *pumsavanam* and *seematham* to be done in different months are collapsed and the invitation card printed to invite people for the occasion is called *pumsavana seematham*. What often transpires is that the day may begin with a *vallaikappu* around dawn, followed by *pumsavana seematham homa* at about nine, followed by feeding the guests. In the evening there may be the *poonchootal* after which the pregnant woman's mother will take the daughter away to her natal house where she will have the child and stay on for a few months before her return to her husband's home. All these rites are virtually mandatory for the first child and optional for the rest. In fact they are invariably dispensed with for subsequent children.

While Van Hollen (2003) and Petitet (2007) have dealt with the description and meaning of *valaikappu* and *simantam*, I mention the *pumsavanam* to indicate that we need to situate childbirth at the crossroads of marriage and puberty on the one hand and of this world and the nether world, so as to argue that (a) the child allows the double transition of incorporating women from one patriline to another, (b) it ensures the continuity of the husband's patriline into which she is now incorporated, and (c) through this continuity, to potentially make possible the future transmission

of the souls of those who begat it from this world to the nether world. In other words the child gives birth to the status of mother and father and will in the future transform the *prêt* (which literally means corpse or body, but also means ghost) of mother and father into *pitr* (ancestor). And since a lot depends on the child, namely lineage, salvation and labour, it is not surprising to witness the number of rituals associated with its anticipated arrival. These rituals ensure the safe passage of the *douhrdini* – the woman with two hearts and two desires—by invoking the gods, placating the demons, soliciting blessings and by deflecting the bad influences of jealous and envious onlookers. By the same token, the *douhrdini* is subject to proscriptions and prescriptions around food and mental disposition (*ahara* and *vicara*), or *acharam* and *anushtanam* (etiquette/comportment and its implementation), which will determine the outcome of the pregnancy.

Of Demons, Dispositions, and Desires

Obeysekere (1963) in his article on pregnancy cravings in Sri Lanka tells us that cravings of pregnant women are legion and at times peculiar as it is the craving of the child (or the heart within the heart), and these cravings have to be fulfilled by the kith and kin and by the husband. But these cravings may also be harmful to the mother and the child and she is enjoined to conduct herself with a series of proscriptions in terms of food, conduct and her physical and mental disposition if she is not to lose the child. She is also prescribed all that is good for her so that she and the child are well nourished, in good cheer, and protected from envy, jealously and the attack of *bhut* (demons/goblins).

In the light of this the samskaras or sacraments attempt to ensure a viable, healthy and safe outcome for the child, an eventless pregnancy for the mother and an uncomplicated post partum recovery with no problems with lactation.

What a turn towards the sacraments allows us to do is to show that what appears to be ritual, rather than being divided into the superstitious and the practical, may be seen as efficacious acts that address different orders of reality. This is further compounded by the fact that all Asian civilisations, including the Greek on the periphery of what is now called Asia Minor, had a humoral theory of medicine, where the distinction between mind and body and of matter and spirit was rather differently articulated. What appears to be a superstitious injunction, such as that the pregnant woman should not sleep during the day, may mean something different if it is seen through Indian humoral theory. Sleep, and daytime sleep would lead to an increase of *kapha* (phlegm). This, combined with excessive eating, and a sedentary existence, may result in what is today called gestational diabetes. While this may be admissible as a rational explanation as it deals with possible physiological processes, the claim that similar injunctions if not followed will lead to an attack by the *bhut* and lead to a miscarriage, or the *bhut* sucking the blood of the child, are not scientifically acceptable. But *bhutvidya* (the science of *bhuts*) is one of the eight branches of Ayurveda (Indian medicine) and is now translated as psychiatry rather than as demonology/spirit possession.

I introduce this to suggest that all of the rituals must be seen as addressing (a) the unseen world of *bhut* that comes come from the outside and possess the woman; (b) the general disposition of the woman in terms of both her mental and physical exertions and conduct; and (c) the desires of the pregnant woman, which have to be fulfilled without harming her or the foetus.

In the light of this if we revisit the *pumsavanam*, we see that it is performed when the moon is in a male constellation. The pregnant woman fasts on that day, bathes and puts on new clothes, and the high point of the ritual is the insertion of the juice of the sprouts of the banyan tree into her right nostril. The rationale for this comes from the medical treatise by Susruta, where the juice is said to prevent a miscarriage and to ensure the birth of a male child (Pandey 1969: 61–62). If the father desires that his son should be virile, he should place a pot of water in the lap of the mother and "touching the stomach recite the verse 'suparnosi'" (Pandey 1969: 61), which is at once a prayer, an invocation and a "magical" incantation.

While the *Dharmashastras* and other texts debate on which month this should be done, another famous medical compendium called the *Ashtanga Hridayam* (7th century), talks about the *pumsavanam* as a *kriya* (action) and a medical procedure for ensuring a male child. It says quite clearly that this should be done immediately after conception when the "conception" is still an unformed mass, and lists eight different procedures, including the pounded juice of the banyan tree.[1] This is the one that is still followed, except for the fact that they seem to follow the non-medical texts as they do the *Pumsavanam* much later. While this may not produce a male child it may still contribute to a viable and healthy one.

The *seemantham* (hair parting) is to protect the foetus from blood sucking demons by invoking the goddess Sri and bring prosperity to the mother and long life to the child. The idea was to recite sacred hymns that the child would absorb. It was also done to impress upon the woman that she should now take care to prevent any kind of physical or psychic shock to the foetus, symbolised by the parting of the hair as mode of boundary marking (Pandey 1969). The purpose was also to keep the woman in good cheer by showering her with gifts, presenting the choicest of food, dressing her up like a bride, and regaling her and addressing her as if she were a goddess. The *valaikappu* has much the same import in broad terms. In both the expectant mother is dressed in a black sari to ward off the evil eye. Finally, part of the purpose was also to feast the woman in every way, as childbirth was also a wager with death. An un-feasted and unhappy woman, were she to die in childbirth, would be the object of lasting regret to all those she left behind and would haunt them with her memories and might also return to haunt them as a prêt (ghost) (Petitet 2007).

While this is the general rule, the modalities vary by region, sectarian affiliation and caste. And sometimes this ritual may appear with variants not during pregnancy but during marriage, or even during the engagement ceremony. Among the Sindhis it is called *Tel* (oil) where the woman is anointed with oil; it too is done in the eighth month now. In the Punjab it may appear as *godh barai* (to fill the lap with presents).

Birth Ceremony

We will now move from the prenatal samskaras to the *jatakarma*, or birth ceremony proper, which is done prior to the cutting of the cord after the birth. The first part is called the *Medh-Janna*, where the father with his fourth finger and an instrument of gold gives the newborn child honey and ghee (clarified butter). The purpose of this is to ensure the intellectual wellbeing of the child. Given with the uttering of the Gaythri mantra, both the incantation and the substance were meant for stimulating talent and fostering intelligence. At the same time a secret name was given to the child along with the phrase "thou are the veda". The name was only known to the parents in order to prevent enemies from performing black magic on the child (Pandey 1969: 74–75). This was followed by *Ayusia*, done to ensure the long life of the child, followed by another to ensure its hardy and pure life (Pandey 1969: 76), after which the navel cord was severed and then the child was "washed and given the breasts of the mother" (Pandey 1969: 76). This was followed by further ceremonies to ensure the protection of the child and mother during post partum, part of which was to put a pot of water beside the head of the mother and the offering of mustard seeds and rice chaff into a fire that the father had established at the door of the newly built maternity house at the time of her confinement. This offering of seed and chaff was accompanied by a mantra or magical formula, where all the diseases of childhood were invoked and banished. Feasting and alms giving followed this, as "the merits of alms given on the day of a son's birth are eternal" (Pandey 1969: 77).

The *jatakarma* is preceded by the building of a special maternity hut, whose specifications, directions and accoutrements are laid down in some detail. It was anointed to ward off evil, and the expectant woman was confined to it accompanied by experienced women who kept her in good cheer, anointed her with ointments to facilitate the birthing and advised her on proper diet and living. During the time of labour all the knots in the house were loosened, symbolising the loosening of the foetus; and a special rite called *sosyanti-karma* was done to expedite the delivery by the force of an Atharvan verse, "Not as it were stuck in the flesh, not in the fat. . . let the slimy afterbirth come down for the dog to eat" (Pandey 1969: 72).

Of Childbirth and the Sacraments

If we look at the empirical literature on South Asia, we can see that all the themes laid out in the sacramental or samskara literature have full play with their own regional and local variations. The texts themselves are numerous, they debate and disagree, and they too may be seen as instances and practices at par with other living and oral traditions. As Blanchet's (1984) study among the Muslims in Bangladesh shows, both notions of pollution and the belief in *bhut* are fundamental in any understanding of childbirth. In Tamil Nadu the *valaikappu* is performed by Hindus, Muslims and Christians. For example, as one goes down the caste hierarchy, one may not give the child honey and ghee with a gold instrument, but instead give sugar

water (ideally palm sugar) for the first day, and a bit of ass's milk, failing which the child is likely to suffer from weak eyesight and will be open to repeated attacks of hepatitis later in life. And everywhere the cord is never cut until after the placenta is delivered, and often, as Blanchet points out, the placenta is used to revive a stillborn child by warming the placenta in various ways. And while the placenta may not be fed to a dog as in the above Atharvan verse, it is disposed of in special ways, often buried deep in the ground so that dogs actually don't get to it. And in case the child dies in childbirth it is cremated so as to prevent a *mantarvadin* (one who does witchcraft) from accessing body parts, especially the *mulai* (brain), which is cardinal for his craft. And in contemporary times, as Patel and Blanchet point out, the placenta is buried far away with one of its favourite resting places being the University in the belief that the child goes where the placenta has gone.

The post partum "mother roasting" is performed (Manderson 1980), because of the notion that the mother after birth is cold (in terms of the hot cold polarity in humoral medicine) and suffers from a loss of heat, and needs to be kept warm from 10 to 40 days. The husband lights a fire at the door of the maternity house and keeps it alive until the mother rises from her bed post partum. The fire, along with the mustard and chaff that is fed into it, also functions to keep *bhuts* at bay.

Her coldness and vulnerability are also marked by dietary prescriptions that may vary from giving exceedingly rich and heating food made of almonds and pistachios and a host of other ingredients in the Punjab and north India, to giving her nourishing but not so hot food in the warmer regions of South India. And in the north, among the poor, other substitutes to almonds and pistachios exist while the principle remains the same.

Knowledge of birthing is diffuse and widespread, and the role of the dai or midwife may vary by region, religion and social class. But what is important is that birthing seems to be a collaborative exercise by the mother, kinswomen and the midwife, with the dai, dhatri, or marutuvachi handling the afterbirth and immediate post partum work and assuming a more prominent role in the case of a difficult birth. And in Tamil Nadu (and elsewhere) the marutuvachi in rural areas is part of a patron client network, and she may reappear in different moments in a family's sacramental life cycle. As a ritual specialist she is due either a portion of the farm produce and/ or payment at each of these events. As a 76-year-old informant put it, "my grandmother delivered all eight of us, cut the cord and buried the placenta, but she never failed to give the marutuvachi what was her due. That is something you had to do".

It is for this reason that situating birth as part of the samskaras makes sense, irrespective of what community one is studying. Eshanul Haq, in his study of both Hindus and Muslims in Uttar Pradesh found that it is because of sacramental need that rural women prefer the home, quite apart from the fact that most often poor rural women are treated badly in the hospital, are guinea pigs for meeting family planning targets, and as it transpires not necessarily safer in a public health facility than at home. As for high infant and maternal mortality and morbidity, it is moot as to how much of this is iatrogenic, given the fact that episiotomies (for example) in public post-graduate teaching hospitals are 96% and virtually 100% in private hospitals

(Selvaraj et al. 2007: 16). Finally, people may die and fall ill not necessarily due to indigenous birthing practices (though that too is possible) but to sheer want and poverty and the attendant malnourishment and impossible living conditions. Rather than addressing this, a social problem is medicalised and converted into a medical problem and it is presumed that indigenous practices and ill-trained personnel are what need to be extirpated.

Note

1. I thank Dr. Girija, an eminent Ayurvedic doctor in Chennai, for bringing this to my attention.

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Rural Midwives in South India: The Politics of Bodily Knowledge

Kalpana Ram

This chapter examines rural midwifery as a form of knowledge that is undervalued by both Indian and Western elite traditions. Even in asking, "What is the culture of birth like in non-Western societies?", we assume a complete separation of Western and Indian knowledge systems. It is not simply today's modern India which has brought about a blurring of such boundaries. Such bifurcations were muddied in the colonial period, with the founding of biomedical establishments such as maternity hospitals and baby clinics from the end of the 19th century onwards. In the course of the twentieth century, contemporary forms of Western knowledge such as biomedicine, family planning, demography and social science, have all played their parts in shaping the Indian state and intellectuals in India. These intellectuals in turn shape the interactions between rural women and institutions such as hospitals, family planning clinics, and schools. We therefore have to reckon with the presence of social sciences, not only among Western scholars working on India, but within the country itself. Part of this chapter will examine the legacies of my education both in India and in Australia, and the obstacles it has placed in my attempt to approach, let alone represent, the knowledge of midwives.

The colonial period has also left a troubling legacy in the way the politics of knowledge works. Colonial criticisms of childbearing practices in India were tied to critiques of indigenous culture as a whole. Establishing "lack of hygiene", particularly in matters to do with maternity and female health, gave a scientific cast to criticisms of gender norms such as seclusion. The fact that norms such as seclusion were readily understood by colonial powers both in the Middle East and in India as a matter of religion rather than elite class mores, has allowed a continuing understanding of women's status in traditional societies primarily as a problem of religious customs and practices. In 1901, the British census of India commissioned a special enquiry into the methods of indigenous midwives and reported on the "curious information" collected. Yet, as Engels has argued (1996: 129), the practices described in the report were in fact not very different from contemporary European

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folk practices of the same period. In an account of the writings of colonial medical women, Shetty (1994) details the "excess" in the descriptions of the midwife as a dangerous and dirty figure.

Edward Said (1978) has described the legacies of this era as the legacies of Orientalism, which authorises a particular version of the West as normal and modern and the East as a mixture of exoticism and backwardness. Such legacies have been taken up by postcolonial elites, as in the manner in which the personnel of biomedical institutions in India treat rural midwifery as backward and superstitious. But the legacy can also live on in sophisticated styles of academic judgement and writing.

To take just one example, the colonial presumption that one can capture all of India's complex civilisation in terms of religion lives again in the writings of one of the leading western anthropologists of India in post-war Europe, Louis Dumont. In his book *Homo Hierarchicus* (1980), Dumont gives primacy to religious values above all others, and further narrows the terrain of religious values to one set of oppositions: purity and pollution. He argues that it is this set of binary oppositions which gives cohesion to inequality and hierarchy in India. The West emerges from Dumont's treatment as non-religious (secular) and non-hierarchical (egalitarian). In fact, Dumont was more sophisticated than this. He saw secularism and egalitarianism as dominant values in the West, but argued that it deluded itself in thinking that hierarchy had no place in its own values. However, the values he nominates for traditional India were not accorded such scepticism. He claims that India is the exemplar of religiously-based hierarchy, the land of that peculiar creature, "Homo Hierarchicus". It is for such reasons that a whole generation of scholars in India and overseas who write under the framework of postcolonial studies have fiercely rejected Dumont and the relevance of purity/pollution as a thematic trope for India, preferring to re-instate the importance of political and state power (e.g., Dirks 1987; Appadurai 1988; Das 1995).

Yet while purity and pollution, and indeed caste cannot be turned into a scheme for understanding India, the attempt to ignore its role has itself lent peculiar contortions to postcolonial scholarship. There need to be other ways of responding to the challenge of displacing Orientalism than simply to reject some of its perceptions as fiction. Dumont's characterisation of purity and pollution was not based simply on religious texts. It drew also on his early doctoral work on a Tamil caste called the Kallars (translated into English in 1987 by Dumont). Here he details the work of service castes such as washermen and barbers who assist in removing the outflows of childbirth, of first menstruation, and the pollution of death. Well before his treatment of Indian civilisational values, Dumont referred to these castes as "specialists in impurity", who find themselves living permanently in a state which others are able to enter into temporarily and come out of with a ritual bath (1980: 48–49). Dumont refers to Tamil midwives, known as *maruttavacci* or "woman doctors", as the wives of barbers and washermen, assisting in removing the impurities and soiled clothes of both first menstruation and of birth, as well as performing tasks such as cutting the umbilical cord (1987: 260). Dumont also describes the remedy given by the *maruttacci* to the mother after birth – a concoction of palm sugar, garlic, pepper, garlic and ginger, as well as the protective measure of

placing, on the baby, a heated needle or a turmeric root in order to keep illness and convulsions (*janni*) at bay (1987: 260).

Current ethnography of midwifery in India testifies to the general validity of his descriptions. The account given by the Jeffreys (1989,1993) for the state of Uttar Pradesh in north India covers rural populations from Muslim, caste Hindu and Dalit communities once ranked as "untouchable". These anthropologists describe the tasks of cutting the umbilical cord and delivering the placenta as ones that are regarded as extremely polluting and therefore relegated to the *dai* [midwife]. Along with performing these tasks, the dai has to mop up any bodily outflows and faeces, bathe the birthing mother, and bury the soiled clothes. The midwives in this account were from the Muslim weaver caste and from the leatherworker (Chamar) caste, and most are landless Dalits or Muslims (1993: 22). Most present their own work as undesirable.

Even ethnographers most critical of Dumont's work confirm the continued significance of impurity or *tittu* when it comes to the culture of childbirth. For instance, Kapadia (1995) disputes the dominance of the values of purity and pollution, and seeks instead to establish an autonomous domain of values and practices for Dalit castes in Tamil Nadu. However she does confirm that Pallars (a Dalit caste), treat "their service castes in exactly the same way as other castes treat theirs" (1995: 178). This "treatment" includes transferring the tittu or impurities of birth to the barber's wife when she performs a purifying rite on the Pallar mother (1995: 121). Similarly Van Hollen, writing about metropolitan Chennai, records the role of the *vannaathi* (washerwoman) in removing the tittu clothes of childbirth and replacing them with clean clothes from other families (2002). During the period immediately following childbirth, the mother abstains from worship, and after the end of the post partum flow, she has a *tittu kazhittal* (cessation of tittu) ceremony that involves a ritual oil bath like the one performed at the time of the first menstruation ceremony (Van Hollen 2003).

Dumont responded to such evidence by trying to place it within a wider framework of meanings, one that did not treat birth in isolation from other phenomena, but that integrated birth and death in a coherent understanding of the body and its relationship to the religious value of transcendence. Certain aspects of the body are associated with decay and putrefaction; indeed the entire body is ultimately destined for death and decay. Birth also has a close association with death and putrefaction, for birth brings forth not only the baby, but the bloody fluids of birth and parturition, and the placenta and the umbilical cord, which are at once linked with giving life to the baby and, once expelled and once the cord ceases pulsating, resembling dead matter. Biomedical attitudes to the placenta and cord attempt to resolve this ambiguity of meanings in favour of a resolute understanding of them as "mere biological waste", but in fact the value of regarding something as dirty and unhygienic is not completely removed from regarding it as dirty and polluted. This relative nearness of purity and hygiene becomes clearer if we consider the many societies where there is a more positive role for the placenta and cord. In the Highlands of Papua New Guinea, for example, the proper burial and "placing" of the placenta is crucial in "grounding" the baby and the mother in the father's native place. Here, women fought hard against the peremptory disposal of the afterbirth as rubbish

when Catholic nursing sisters first set up a clinic in 1969 (Merrett-Balkos 1998). In India, the afterbirth and cord come in for the same negative evaluation as attributed to all bodily wastes, including menstrual blood, saliva, hair and nails, faeces, as well as dead bodies.

The bifurcation between the body as a thing perishable and the purer transcendental aspects of the divine, a distinction to be found not only in India but also in most major world religions, can sustain many different kinds of social discourses. In India, these values seem to condemn certain groups to maintaining the purity of others. But the very same emphasis on the fleeting nature of human embodied existence has also sustained religious critiques of the caste system and indeed of all man-made social distinctions, including gender distinctions. The search for the dissolution of the body in the union with the divine, and with it, the dissolution of all social markings, has been the hallmark emphasis of movements among artisanal castes and groups low in the agricultural hierarchy.

Diverse Values That Pertain to Childbirth

Instead of dismissing purity and pollution as Orientalist constructions, we can emphasise more fruitfully the variety and complexity of social relations and meanings that inform any given phenomenon in India. Arguing that India has never been characterised by a singular form of patriarchy, but by "multiple patriarchies", Sangari points to the patchwork of diverse social formations.

> In the past, caste division, divisions of labour, the co-existence of tribal and agricultural modes of production, of matrilineal and patrilineal systems, and their complex articulation with regional histories including the formation of religious sects, have been significant factors in the crystallisation of differing patriarchies (Sangari 1995: 3381).

My earliest experience of fieldwork alerted me to issues of difference stemming from the uneven impact of upper caste values. My fieldwork occurred not in an agrarian caste setting, but in a fishing community. Among the coastal Mukkuvars, who live in the tip of the subcontinent, a selectivity towards ideologies of caste and purity/pollution is sustained by a cultural autonomy that finds its basis in sea-based relations of production and an early conversion to Catholicism in the sixteenth century (Ram 1991). During birth, precautions are taken for protecting the birthing woman against ghosts and demons, using iron objects or Christian prayers (*kaaval japam*) to ward them off. Themes of danger continue to be salient. However, there is no attribution of pollution to either mother or midwife. Midwives are not set apart from the rest of the community by virtue of their polluting tasks, nor do they belong to a separate service caste that suffers from a permanent impurity. Midwives are simply elderly fisherwomen who either have some skills in the family, or else have won their place through being able to impart courage, confidence and calmness in the birthing women. Many work also as fish traders, a feature which places them under the immediate censure of medical establishments when they accompany a woman to hospital.

There is a rich variety of social forms co-existing in India. Even a single aspect such as menstruation or birth, and even within the same community, may be informed by several kinds of discourses. Daniel (1984) has argued that purity versus pollution is but "half the truth. . . chosen from within an artificially enclosed analytic system called caste" (1984: 1–2). The domain of birth is no exception. Birth is not structured by just one set of distinctions. Bodily balance is highly valued, and this can impart quite different meanings to the flow of post-partum blood, which may be perceived by women as cleansing. When I interviewed agricultural labouring women in Tamil Nadu, in the District of Chengalpattu adjoining the metropolis of Chennai, they discussed the blood as cleansing, as getting rid of potential *novyu* or illness. Similarly, in her work in urban metropolitan Chennai, Van Hollen (2002) argues that although the term *tittu*, denoting impurity, is used to describe the fluids of birth and the post-partum period, the concern in all the practices surrounding the mother and infant was rather with the health of the two. Dietary practices, known as *pattiyam* or prescribed diet, as well as bathing practices, are a means of ensuring that post partum blood flows smoothly and steadily, and is expelled from the mother's body. They aim to ensure an adequate supply of milk and to protect mother and infant from colds, fevers and diarrhoea. They eliminate the "cold" and "wet" state of the mother's body (Van Hollen 2003: 200).

Other meanings of fertility emerged in conversations with Dalit women in agricultural villages. Family planning is associated in the minds of rural women with sterilisation rather than contraception, thanks to the restrictive scope of state policies in relation to rural women. Vellachi, a woman from a Dalit agricultural labouring community, speculated to me on the harmful effects of sterilisation. In doing so, she drew on two kinds of discourses. In the first, she found sterilisation a worry in terms of bodily balance, since the blood of post-partum was also an opportunity to "cleanse" the woman and rid her of "bad blood". But the second, more striking image she used referred to sterilisation as the untimely cutting off of a power such as electricity. I have elsewhere examined the construction of the female body as imbued with *sakti*, a force that matures with the maturation of the body but cannot be reduced to it (Ram 2007). It is also the force that animates the worship of the goddess all over South Asia, not only Hindu goddesses, but Christian ones as well. But Vellachi's description of sterilisation as the termination of electricity was more than *sakti*. Abrupt terminations of life and life force are associated in rural Tamil Nadu and in other parts of rural India as a shock that has the capacity to turn the dead into ravaging spirits and into minor deities that must be worshipped and propitiated. The distinction between humans and deities is thus blurred. In any case the gods and goddesses worshipped by non-elite castes do not have the same relationship to the body as the ones worshipped by upper castes. Many of the deities worshipped by agricultural and fishing castes are not as affronted by the fluids of birth as the deities of upper caste Hinduism. Indeed, in the fishing villages, I found maverick and volatile deities were positively drawn to such fluids and odours, although it has to be said that this attention did not necessarily bode much good for the woman or baby. Vellachi was drawing sterilisation into this discourse where human bodies and ambiguous spirits and deities are just a hair's breath away from one another,

separated only by a thin and permeable membrane. Too abrupt termination of life causes a rupture of this membrane, turning humans into ambiguous spirits. So also, she reasoned, too abrupt a cut to the energy force running through the bodies of women in sterilisations created harmful consequences. There is a sense of injustice that connects all these situations (see Ram 2007 for one such context), a sense that is particularly apposite in poor women's experience of sterilisation given the coercive elements utilised by the state in relation to the pursuit of population control targets (see Ram 2001).

The body of knowledge that rural midwives employ draws on this multiplicity of discourses. I spent some time in the mid 1990s with Ponamma, a sixty-year-old midwife from an agricultural labouring community in Kanyakumari District. Her answers showed little concern for "pollution" accompanying either birth or her own work. Rather they were replete with the use of remedies designed to restore balance and heal specific complaints in both mother and infant:

> Ponamma is rich with remedies for specific complaints. For labour pains, she takes ground nut oil (*vallaka ennai*) and massages it on to the woman. To increase labour pains, she gives the juice of the *murunga kai* (drumstick) mixed with salt. To treat tears, she uses a *kaduka kai* [another pod], crushed, soaked in hot water, and then used to clean the tear with. The wound heals in fifteen days. She also massages the perineum to prevent tearing. She asks women to walk until the pushing stage. She bathes the mother and child in hot water in which medicinal leaves have been added. They come from the following plants: *nochi, nonai, neelagirir, vepanthazhe*. These prevent body aches and neck pain. Some of the leaves can also be used as a pillow for the neck. The mother is given a medicinal oil called *kashapu* (bitter) *thailum* to prevent *janni* (tetanus) and *peenadirshe tazai* is given to the mother to prevent the next child from getting '*nay noyvu*'. *Kadai selavu* is added to the *kozhumbu* or food to heal *punnu* (sores) in the womb. For diarrhoea, she recommends garlic, ginger, and *poduthala thazhe*, heating them up, grinding them, and giving to the mother. She distinguishes two kinds of diarrhoea – *eeratha mala bedi* (wet diarrhea) and *shutu bedi* (heat diarrhoea). For the first, she gives a mixture of garlic, cumin, asafetida, mixed with water. For the second, she gives a mixture of goat's milk in which lemon juice is added, but it is drunk before the milk curdles (Field notes 1994).

Elitism and Hybridity: Western and Indic Hierachies of Knowledge

There are, in India, different discourses on childbirth which construct the body of mother and child in terms of diverse values. They may all feed into the ways in which mothers and infants are nurtured in any given situation. They do not simply cancel each other out because they are different. Into this brew of heterogeneous elements we must add western systems of knowledge, based on science and biomedicine. I have recently written about the ways in which many rural women, trained by non-government organisations, embrace a new identity as harbingers of enlightenment to the rural backwaters. Much of this enlightenment centres on the re-education of villagers in matters of health and hygiene (Ram 2008). A much broader cross-section of rural women exist who, while not regarding themselves in such an

activist capacity, nevertheless oscillate between biomedical and older conceptions of their bodies (Ram forthcoming 2009).

Many anthropologists today discuss this kind of co-existence of knowledge systems as a form of "hybridity" (see for example, the excellent collections on midwives edited by Robbie Davis-Floyd 2001). Rural midwives in India incorporate certain elements of the more prestigious biomedical model. In the villages where I worked, many midwives had already, in the 1980s, begun to encourage women to go through labour and birth in the supine position on their backs rather than in the traditional supported squat. They would have liked to have had rubber gloves. Rural families tend to regard injections and saline as efficacious (Rozario 1998: 158).

What is less frequently commented on are the forms of hybridity that point to pre-existing affinities between different forms of elite knowledge production. It may well be another untoward effect of Orientalist tendencies to construct India and the West as opposites, that even such strong similarities between the way knowledge has been constructed in a "caste" society and the way knowledge has been constructed in a "class" society have remained unremarked. In both cases, elite definitions of true knowledge create a definitive distance from the body. If the body is perishable and changeable, then true knowledge must be eternal and changeless. If bodily knowledge is practical and contextual, true knowledge must be discursive, systematic and outlasting any particular context. Pollock (1993) describes the monopolization of "access to authoritative resources" in the historical constitution of an elite culture, of which the most authoritative was Sanskrit (*vaidika*) learning. Women, and all castes who had not been "twice born" through the initiation ceremony or *upanayana*, were barred from access to Sanskrit literacy and the study of the Vedas. Discussing the earliest systematic analysis of *dharma* in the *Purvamimasa sutra*, described as a "sophisticated hermeneutic science" (1993: 101), Pollock finds a chain of mutually derived interdictions which claim authority in the Vedas (1993: 109). *Adhikaram*, or the right of a person to possess the results of an act of dharma, rests on the person's having the knowledge to perform the rite, and to possess the ritual means to do so. This is the case with the right to the sacrificial fires of Vedic sacrifice and the physical and economic ability to execute the ritual. The juridical texts recognise that "Sudras" or lower castes may both have the same desire for heaven as anyone else, and might have the physical and economic ability to perform the ritual. Therefore the interdiction ultimately rests on the prohibition of Sanskrit literacy and sacred knowledge or *vidya*, since the right to recite the Vedas is restricted to those who have received the *upanayana* initiation of the sacred thread ceremony. This ruled out all women, from all castes. If women are inevitably involved in the messy business of physical birth, then the initiation into a "second birth" for members of communities entitled to claim the status of the "twice born" sets itself up as an exclusively masculine affair. Birth in this masculine universe takes the form of a mantra (the Gayatri mantra) taught to the male initiate by the guru and father. The mode of transmission and recitation are oral, binding *shishya* or initiate to the guru, but what is equally crucial in marking this elite version of knowledge is that this must be mediated by initiation into textualised written traditions.

In this construction, midwifery comes in for a double opprobrium. As a practitioner who deals with the liquids of menstruation and birth, the midwife's knowledge disturbs the separation between *vidya* (knowledge) and the body, between physical birth and the superior form of spiritual re-birth. Second, as practical knowledge, the knowledge of the midwife remains outside dominant conceptions of what it is to "know" something.

Yet, just how different is this from the way in which midwives were (are) devalued by western traditions of knowledge? The second wave of the women's movement in the West drew energy from a critique of the ways in which women's birthing experience had been removed from the female world of midwifery and placed under the inspection of men. In the writings of the 1970s, feminists wrote about men coming to wield the new technology associated with medical science, starting with the invention of the forceps (see Ehrenreich and English 1978; Donnison 1988; Oakley 1980). A decade later, ethnographers of birth in the United States were writing about the birth experiences of ordinary women in hospitals as no longer integrally concerned with "the woman in the body" (Martin 1987). In the representations of medical text books, and in the treatment given to birthing women, the body was almost a biological machine, which required continual surveillance from medical technicians to keep it from breaking down or going astray.

Medical attitudes towards the body, and the female body in particular, did not emerge from nowhere. There is a genealogy connecting modern medical attitudes to a history of Christianity and philosophy in the West, the former separating soul from body, the latter separating mind from body. If, today, medicine attends to an "un-mindful" body, then it has as its obverse the many modern disciplines that cater to a "disembodied" mind, from psychology and psychiatry to the social sciences. What stood in my way as a young feminist ethnographer in the 1980s was not the value I attached to the figure of the midwife. Fresh from the debates of feminism in the 1970s, I was only too ready to honour her. What stood in the way of soliciting the knowledge of the midwife were the methods of the social sciences themselves. These were not the neutral tools they seemed, clad in the language of scientific observation and techniques. Instead, they came already imbued with assumptions as to what constitutes knowledge. It is not enough to reverse the values of the existing knowledge structure in the western academy. The very methods of that knowledge structure have to be dismantled and new ones invented.

The Interview and the Answer: Recipes

In my earliest period of fieldwork in the coastal villages, I was immersed in a rigorous discipline of grounding my analysis of gender in the economic relations of power. But as a feminist, I was also heir to debates about the "wise women" who had been burnt as witches and displaced as midwives. Meanwhile, I was in a rural environment where the medicalisation of birth was by no means complete, and where, despite the decrying of rural midwives by doctors and hospitals, there were still two existent and competing systems to be observed and explored. I longed to immerse

myself in a domain where I could write hermeneutical exegesis, re-presenting and honouring a devalued but thoroughly valuable and coherent system of knowledge.

But every attempt to elicit what it is the rural midwife knew met with a frustrating response. When asked questions, the midwives responded with specific answers that remained confined to the question, never seizing on them as a pretext to generalise or build hypotheses. The answers were mechanical, recipe-like, and indeed, many of them were in fact actual recipes such as Ponamma's recipes quoted earlier. Thinking this was a matter of my own ineptitude at asking the right questions, I tagged along with a trained Catholic nurse, Roseamma, who knew an old midwife, Kalyani, in the district's rubber growing area. Roseamma was herself interested in gaining more details of Kalyani's knowledge. I took a back seat and let Roseamma do most of the questioning. What follows is an excerpt from my field notes:

> Kalyani is in her early seventies, but vigorous and spry. She has a good reputation in the area and I meet her with Roseamma, who is particularly keen to learn about Kalyani's use of herbs. Roseamma asks the first set of questions.
>
> *Question* (asked by Roseamma): What would you use during labour to ease the woman's stress?
>
> Kalyani: To ease the pain and relax the body, I give seven or eight cloves of garlic, boiled in one glass of water till it reduces to half a glass. I then beat an egg into it and give it to the woman.
>
> Q: Do you advise anything to be taken during pregnancy?
>
> A: For two months before delivery, it is advisable to take the green leaf of the *katali* [plantain], the root of the *amalakum* [the *phyllanthus emblica*, the nut of which oil is extracted from], coriander, onion, *cira* [cumin]. Boil it all in water, and give the water to the pregnant woman.
>
> Q: Do you have any remedies for specific womb complaints?
>
> A: In case of spontaneous abortions, to clear the uterus, take the pith of the leaves of the drumstick tree, mix with jaggery and give it to her. It will bring out any remnants.
>
> Another remedy for the same problem: take *tenkai pu* [coconut flower], 1/2 kilo of *paccai arici* [raw rice], a whole coconut, and 10 gram of *cira* [cumin]. Pound them together until they are flour like, and the whole thing looks red like sand. Add *karupetti* [Travancore term for jaggery, unrefined sugar] and give. The woman can eat this whenever she pleases, as much of it as she wishes.
>
> Q: Do you use such remedies for the mother and child after birth?
>
> A: I use the following to clean the baby before I give it to the mother:
>
> Take the following ingredients: *chembarathi pu* [the flower of the *chembarathi*]; *kuchan kai* [a very small coconut], the leaves of the jackfruit, picked just when the leaves have yellowed and are about to fall; *cheetandi* leaf. Boil these and add cooled water. The mother can also be treated with special water. Take the cherate [husk] of the coconut and boil it with pepper. The mother should be sponged only for three days after delivery. After that she can bathe, but in the evening, and without wetting the head. A headbath comes only after forty days.

At this point in the interview, I intervened. I knew from past experience in the rural community that spirits and goddesses play an important part in birthing practices. I also knew that practitioners trained in biomedicine may be interested in the

herbal remedies, but are apt to be dismissive of the spirit-based components of rural practices. I asked her about this dimension of her work.

> Q: Do you also take precautions against the influence of the *pey* [demonic spirit]?
>
> Kalyani: I can size up a delivery, and I know if the delivery is going to be a difficult one. By this I also include a case where *pey* is involved. Typically, such a labour eludes one: it looks like an imminent delivery, but then becomes prolonged. For this I have special *mantras*. My special god is Ayaavali. My mantras have driven away peys. The peys are usually of people who have died young, and violently. [Cf. my earlier comments on untimely deaths.] My mantras cause an immediate improvement. But this is a *thozhil rahasiyam* [a professional secret, a secret specific to my calling], and I cannot divulge anything further.

But such a line of questioning did nothing to alleviate the dry flow of empirical details. It merely augmented the range of empirical details. At no point did the midwives provide a framework to place them in or interpret them within.

Yet anthropological accounts of birth in other traditional cultures presented coherent worldviews, informed by indigenous medical systems of classification, equipped with rituals whose symbolic meanings lent themselves to satisfyingly thick descriptions. I assumed there was something missing in my questions.

The truth was that such worldviews cannot be elicited primarily through questions. Anthropologists *construct* an intellectual interpretation of what they have learned, producing their learning both as a framework of interpretation and as so many diverse forms of empirical evidence. As Laderman points out after an impressive description of the Malay humoral system in her classic *Wives and Midwives*,

> I have, until now, described customs as a general script for the acting out of gestation and birth – *a script learned from numerous observations and conversations*. Since *all learning is contextually specific*, and since the particulars of each sequence of events require people to improvise their actions from the elements of these cultural scripts, I will recount two cases of childbirth to show how this is done (1983: 152: emphasis added).

In other words, these anthropological accounts were in fact second-order intellectual reconstructions of meanings. In practice, such meanings are encountered in quite a different form, as implicit in numerous practices. Nor are they ever encountered – either by the anthropologist or by the midwife – in the same way twice, because each context is novel.

Observation of Practices

Anthropology does not rely primarily on interviews; it also instructs the student to observe practices. Such observation brought me nearer to an appreciation of what the midwives knew. In coastal fishing villages, midwives did not attend on women during pregnancy, although all of them knew of remedies for common ailments such as water retention. For example, one of them told me that for difficulties in urinating or for the swelling of feet in advanced pregnancy, a mixture of barley water, coconut milk and garlic was to be boiled down and drunk. However, this kind of knowledge was not limited to midwives but was common to many women in the villages.

During the birth itself, midwives felt the position of the foetus while the woman was held in a supported squat, feeling for the head in particular, inserting the middle finger into the vagina while feeling the belly with the other hand. They applied hot compresses on the stomach to speed up labour. The Catholic midwives prayed to the saints and one of them used the *kaaval japam* (protective prayer) taught by the Church to guard against Satan. One of them also placed a cross on the birthing woman's forehead and stomach as she recited the prayers. As a precaution against the evil *pishashu* or spirits, they propped up a piece of iron in the corner of the hut, or used local implements with iron in them, such as fishing harpoons. They waited for the delivery of the placenta and cut the cord with a shaving blade, although the traditional instrument was a clean fishing knife. After the birth they gave the woman either hot coffee or hot water. They also gave the mother a tonic mixture of ginger and pepper, applied the oil of the margosa tree, bathed the baby, and then returned home. If the child had been hurt during delivery, midwives placed the baby on its stomach, and massaged its back with a little holy water and chanted mantras. They referred to this as "righting the intestine".

The question and answer interview is the least appropriate methodology to use to elicit such forms of knowing. The questions present none of the complexity of an actual pregnancy or birth. Moreover, Roseamma, the convent nurse, asked Kalyani what remedies she would give the woman. It is not an open-ended question that can elicit the range of what Kalyani would do in any actual birthing situation.

Observation of the midwife's practices may move us a little closer to appreciating the range of skills employed. But there are limitations to observation as well. Bourdieu has argued (1977) that the stance of the observer itself introduces certain biases into the account produced by the observer. The outside observer's stance abstracts from the actual contexts in which the practitioner practices her skills. Not having a practical stake in bringing about the birth, the observer seeks to know what he or she observes, primarily as a spectacle. Each birth presents the midwife with a context that is at once more specific than the abstract rule and more complex than any intellectual account could convey. The stance of a purely interpretive gaze abolishes the purpose which provides a practitioner such as a midwife with her particular stake in the events in which she participates, namely, the safe delivery of a child and the wellbeing of the mother.

Ethnography Based on Apprenticeship

Anthropologists who have abandoned the stance of the observer, and taken on the involvement of the apprentice, have achieved the most in relation to understanding the knowledge of midwifery. Jordan's work on the construction of "authoritative knowledge" in the area of childbirth (1993) draws attention to the tension between the didactic style of knowledge in western training programs for midwives as against the experiential and embodied style of knowing among rural Yucatan midwives.

> While learning under the didactic model is concerned with verbal and abstract knowledge, apprenticeship learning is, above all, the acquisition of bodily skills. It involves the ability

> to do rather than the ability to talk about something, and indeed, it may be impossible to verbally elicit from people operating in this mode what they know (how to do). To master the skills means to acquire expert body behavior. Hence, in apprenticeship learning, talk, and particularly instructive talk, plays a minor role. The work done by talk is much more an expressive accompaniment: it punctuates, and flows in rhythm with, the bodily performance. . .The midwife is less likely to talk than to guide the hands [of the apprentice]. In a real sense, the knowledge is in the hands and is transferred by the hands (Jordan 1993: 192).

Jordan's observation also helps us understand why a group of women actually acted out for me what they typically did during birth. The following is an excerpt from my notes taken at a rural women's workshop organised by a non-government organisation in Tiruvannamalai, Tamil Nadu.

> I ask if the birthing woman is encouraged to move during labour. Indrani, herself a midwife, and one of the women there, shows me what they do by becoming the woman in labour, being assisted to walk in the early stages. Indrani's steps become heavy, two other women assist her from either side. Indrani (as the pregnant woman) protests: "Oh, I cannot, let me lie down!". Interestingly, all this is not simply told to me as a narrative. Much of this is *acted out* to me rather than described: the pains are becoming acute, so the midwife sits on the ground stretching out her legs; the "birthing woman" sits astride her legs, grasping her ankles; another woman supports her from the back; the midwife eases the "baby" out. The women are already "warmed up" by the play they have been putting together as part of the workshop; a play that illustrates the predicament of women agricultural labourers, whose young daughters are preyed upon by the panniyar [landlord]. The enactment of birth leads to an earnest discussion about whether the vaccination injections for newly born babies and the anti-tetanus injections during pregnancy are important or not (Field notes 1995).

We run into fresh problems, however, in the way in which anthropologists have to work with dominant epistemic traditions when they re-present their fieldwork methods of learning. Let us reconsider Laderman's description of her systematisation:

> I have, until now, described customs as a *general script* for the acting out of gestation and birth—*a script learned from numerous observations and conversations*. Since *all learning is contextually specific*, and since the particulars of each sequence of events require people to improvise their actions from the elements of these cultural scripts, I will recount two cases of childbirth to show how this is done (1983: 152: emphasis added)

Laderman underwent an apprentice-based learning process. She describes the nature of the learning she achieved through observation, conversation, and apprenticeship to the midwife, and she signals the gulf between those forms of learning and her re-presentation of the knowledge. Yet the weight of the tradition in which she writes intervenes to reverse the order of events systematically. "Culture" ends up being described as a pre-existing script on the basis of which practices can be improvised. In this version, culture is first a set of rules and narratives, and then come the improvisations from those who have learned its script. The language of customs sets a further seal on the form of re-presentation, making culture even more frozen than the language of the script suggests.

Social Science's Over-Emphasis on Knowledge as the Province of Specialists

When an ethnographer finds that the midwife in South Asia has been devalued by the values of purity, she concludes that knowledge and care of the birthing woman is limited. How might it alter the picture of birth in South Asia if we view knowledge, not as the province of specialised texts or of specialist midwife practitioners, but as widely diffused embodied practices, sustained by shared assumptions that have not entirely been placed into language?

I have described a situation in the fishing villages where the midwife was neither hereditary nor set apart by the values of pollution. Moreover, it was not only midwives who attended births, but also a group of women from the village. While these ordinarily included kinswomen, since a very high percentage of marriages occur within the village itself (see Ram 1991), in a couple of cases I found that female neighbours attended women who had no kinswomen in the village (cf. Chawla 1993). Such neighbourly assistance was a factor in making women prefer village to hospital births.

> *Paniamma*: I have no *contakara* [relatives] in the *ur* [village]. My mother is in Rameswaram [coastal city on east coast of Tamil Nadu]. The neighbours help, and my husband helps. He looks after me after the birth, makes up the medicine, heats the water. In hospital I wouldn't get this kind of help, wouldn't be surrounded by people I am familiar with (Interview 1994).

We may note here the striking role of the husband in postnatal care, testimony to the unusual gender relations that obtain in fishing communities (Ram 1991). In addition, *all* older women in the fishing villages where I did fieldwork could describe the various kinds of dietary and home medicinal practices used for post partum care. Like the midwives, they described the kind of *maruntu* or medicine they prepared and added to their diet of fish. As one of the women, Santhoos Mary, said:

> Our *maruntu* [medicine] consists of *chukku* [ginger], *nella mulakai* [pepper], *omam* [dill], *vellai puntu* [white garlic]. These are all ground and *karupetti* [jaggery] is added. This mixture is then cooked and added to *kudipu meen* [particular variety of fish]. This is given once a day, on alternate days. It is good for making all the wounds and lesions inside the *kutal* [internal organs] to heal [*aarudu*]. It also gives *sakti* [strength] to the *utampu* [body]. On other days, we may have the same mixture but without the jaggery. It also increases breast milk. We take this for twelve days, and some women add this mixture to their curry.

The same woman also told me that she had bad tears after the fifth baby, and that *puli* or tamarind diluted with water had been used to wash the tears. I also encountered a widespread use of such medicines bought from Siddha doctors and mixed with food.

> After birth, we make a fish curry. We mix it with medicine bought from the *naatu vaittiyar* [country medicine doctor]. But I also asked for bread and milk.

In her work in urban Chennai, Van Hollen (2002) found a similar range of practices, entailing the use of *pirasava marundu* or delivery medicine. Women giving

birth in Chennai hospitals take only coffee and bread for three days and avoid rice, in order to ensure a smooth expelling of post-partum blood and to avoid any bloating that might burst the stitches. After the third day, they have pattiyam meals. It does not contain chilli or peppery spices, and vegetarian diets are preferred during the post-partum period, thus scrambling any singular association of post-partum period with impurity. In Kanyakumari, fish continues to be an important if not central feature of the post-partum diet, but it is avoided during menstruation, especially the first menstruation. However, the logic was again not that of "pollution". I was told that eating fish at such times would cause the blood to be more staining and odorous. Such odours were especially likely to attract the unwelcome attention of ambiguous spirits and deities.

As Pigg (1997) reminds us, the figure of the TBA (traditional birth attendant) has become enshrined in the discourses of international health development programs. However, this figure often obscures the diffuse and uneven distribution of knowledge and support for the pregnant and birthing woman.

Conclusion

The problems of the present are complex. There are synergies and similarities between the elite conceptions of knowledge in India and in the West which have enabled a ready co-mingling of the two. Indigenous hierarchies of knowledge in India, just like Western hierarchies of knowledge, privilege traditions that may in fact also be based on apprenticeship, but are thoroughly mediated and authorised by texts. Both Indian and western traditions have historically held themselves aloof from corporeality in many of its core manifestations (the English term "labour" is useful here for it covers both birth and work), and both are dominated by (often exclusively male) classes of intellectuals. Neither the Western tradition nor the Indian traditions have much time for knowledge that is acquired, like that of the midwife, from body to body, in and through bodily practices without recourse or validation in a corpus of textual traditions. Even less does it find comprehensible the diffuse layer of know-how that mobilises communities of women and men in families and neighbourhoods when a birth is under way. The midwives' knowledge does not necessarily base itself on systematic discourses nor does it necessarily result in the production of such discourses. At best it consolidates itself in language as a response to the question: what do you do for such and such a problem? But even this response, contained in forms such as recipes, is not adequate, since it abstracts from the actual complexity of the ways in which midwives respond to particular situations, situations that are never as standardised as the recipe.

Faced with the hybrid mingling of two authoritative systems of knowledge, Western and Indian, the devalued ways of knowing that exist among rural women retreat even more deeply into the shadows. From there they may be coaxed out only by those who present themselves in the humble role of apprentice.

Note

For a general readership, I have not attempted to reproduce the intricacies of the Tamil orthography as specificed by the Tamil Lexicon. A simplified transcription system is used. As not all the names of plants and herbs can be identified, I have reproduced the vernacular names used in the interviews.

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Constructions of Birth in Bangladesh

Kaosar Afsana and Sabina Faiz Rashid

This chapter is about the construction of birth in rural Bangladesh. In Bangladesh, maternal deaths are very prevalent, 320 per 100,000 live births annually, and the construct of birth that is produced in everyday life results in many unwarranted and unnecessary deaths. Various social constructions of birth are observed in everyday life, both in indigenous ways and hospital birth practices. The power of knowledge is multidirectional and influences individuals to follow certain norms and practices which critically shape health-seeking behaviour. This chapter draws on numerous case studies and observational experiences from ethnographic studies carried out in 1998 and 2001 to highlight how understanding of birth is shaped by birth experiences of women and influenced by the context in which meaning is produced. In Bangladesh, most poor women prefer indigenous birth or home birthing. No matter where and how the birthing is constructed, ultimately it affects the marginalized populations, that is, poor, rural women. Women face poor care in a health system which is inadequate and over-medicalised and marginalises local knowledge and practices. The critical gap in understanding the meaning of home births as opposed to hospital obstetric care needs to be recognized, if we want to see improvement in the maternal health situation in Bangladesh.[1]

As Jordan (1983) argues, "birth is everywhere socially marked and shaped". Like many other cultures, there are many notions regarding childbirth practices in Bangladeshi society. Indigenous knowledge and practices of birth persist for generations, particularly in rural areas (Afsana and Rashid 2000; Blanchet 1984; Rozario 1998). This knowledge of childbirth is a culture of diffuse entity born within one culture and shaped and reshaped by social and political influences (Kay 1982). Indigenous knowledge of birth is marginalized in the face of modernity. Knowledge of hospital obstetrics is modern. The authoritarian knowledge of biomedical professionals is challenged by many scholars whose central concern is that women are subjected to medical authority while experiencing birth in hospitals (Davis-Floyd 1994; Davis-Floyd and Sargent 1997; Jordan 1983, 1997; Kaufert and O'Neil 1993;

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Kitzinger 2002; Martin 1989; Oakley 1984, 1993; Rothman 1982; Sargent 1990). Social legitimation of authoritative knowledge is produced within the tremendous power imbalance that precludes poor women from taking active roles in the process of birth, using their own knowledge and expressing their decisions. Furthermore, in a resource-constrained society, practices in hospital obstetrics have created a situation that is not at all congenial to rural poor women. Furthermore, birth practices are aggravated by global strategies, multi-nationals and more importantly, national strategies and programmes at the ground which do not always match up to the lived realities of poor women's lives. The construction of birth has created disparities and inequities for women in accessing obstetric care.

We found a spectrum of knowledge and experiences shared by women and their families in villages and hospitals.[2] These voices were strengthened by observation of birth practices and informal discussions in villages and hospitals. In this chapter, we analyse the construction of birth from various perspectives, highlighting women's understanding of birth and their embodied knowledge, explicating silencing in birth and indigenous knowledge, delineating the environment of hospital birth and authoritative knowledge and the implications of national maternal health strategies.

Understanding Childbirth

The concept of "normal" and "complicated" childbirth is constructed in the context of culture and social practices. Rural women perceive the act of childbirth as a normal, natural phenomenon. Childbirth or *bachcha khalash* is referred to as "*thikmoton hoiche*" (taken place normally) or "*kono oshubidha hoi nai*" (having no difficulties). In conversations, women also include a number of signs in defining normal birth (1) a smooth process without prolonged pain; (2) membrane not ruptured before labour pain starts; and (3) baby is born with intact *phul* or placenta. On the other hand, *kolbekal* or *bekaidai* (complicated) birth was defined as having the following symptoms (1) prolonged labour pain without further progress; (2) membrane ruptured without labour pain, (3) *nari* (cord) coming out beforehand; and (4) becoming pregnant after a long interval of 6 years or more.

The case of Raheemon is typical. She had to observe the norms and rules of pregnancy. For example, she could not go out alone at noon or in the evening, or on Tuesday or Saturday for fear of evil spirits and winds which were known to harm her pregnancy and baby. These are popular understandings on appropriate behaviour which young mothers are expected to follow. Her baby girl was born at home assisted by her mother-in-law, a *daini* (locally popular birth attendant). Raheemon explained:

> I was having *kini kini bedna* (little pain) for two to three days. I didn't tell anyone. But my sister-in-law understood that I was developing *baccha houner bedna* (labour pain). I was doing my normal household chores, like cooking and cleaning. In the evening, after

> dinner, the pain started in my belly. My mother-in-law touched my belly and said, "It will take bit longer." The baby was born normally very early in the morning without any problem.

In another event, Shahanara, a young girl of 18 and first-time mother, started labour pain. She experienced stronger pain as time went on, but the baby's head was not descending. The daini announced, "Baby's head is on one side of the abdomen and the feet on the other side. Take her to the hospital." The following morning, she was taken to the closest hospital and afterwards to a tertiary Medical College hospital. Shahanara had a Caesarean section late at night.

In Bangladesh, rural women's understanding of birth is located within the social model of health. Pregnancy and birth are considered part of daily life (Wagner 1994: 32) and treated as normal events. In rural Bangladesh, although birth is seen as a normal event, the construction of *thikmoton* and *kolbekol* birth is the result of the dominant cultural practices of the society. Understanding of birth is not only shaped by the birth experiences of women, but is also influenced by the context in which the meaning is produced. In fact, these meanings are produced in the light of their similarity or dissimilarity to births regularly occurring in the village.

Rumi, a second time mother who was very emaciated, faced tremendous difficulties while giving birth. She had prolonged labor pain and did not have any energy to bear down. Even though her husband was finally convinced to take Rumi to the hospital, the daini did not allow this to happen. When her first child was born in hospital, Rumi did not relish the experience and was afraid to return. After many hours, the baby was finally born at home with the help of two dainis. In Bangladesh, like most developing countries, childbirth practice still depends on indigenous knowledge of birth where traditional midwives play a special role. Many of the dainis' skills are practical, usefully facilitating the process of birth. Rumi later said, "I had so much difficulties and the baby was born amidst immense pressure. But the dainis helped me." The baby's situation became critical and the mother became frail, yet she was still not taken to the hospital.

Although birth is centered on *thikmoton* and *kolbekol*, various experiences across this dichotomy impart plurality to the meaning of birth. Because of this unfixed meaning, the paradigm of *thikmoton* includes births that are managed at home but require medical assistance. The delivery of a contracted pelvis or breech presentation regularly occurs at home with the use of "simultaneous resorts" (Kleinman 1980: 187), such as amulets, sanctified water, herbal roots and even, medications from local village doctors. Jordan (1983: 79) argues, "Discrepancies between the local and the medical definition militate against the utilization of the resources of hospital obstetrics even for the cases that clearly fall into the medical realm". In rural Bangladesh, however, health care seeking is very much influenced by the plural meanings floating between *thikmoton* and *kolbekol* birth. When complications arise, accessing obstetric care is delayed due to socially constructed understanding of birth that, at times, can prove fatal to mothers and neonates.

Embodied Knowledge and Engagement in Birth

While giving birth, Rahee seemed controlled. She occasionally asked her mother to massage her limbs. All the women sitting beside participated in the birth event and shared their own birth stories. They all stressed that a woman cannot give birth without having *moner shahosh* (mental strength) and *shoriler shakti* (physical strength). All of a sudden, water was seen trickling down Rahee's legs. She started to push down, "Please grandma, put your big toe on my anus." Tuljan, the dainis sat against the bamboo wall and guarded the perineum by placing her big toes on Rahee's anus. Rahee was bearing down. The baby's head was seen through the birth canal. She pushed down hard four to five times and shared later, "I felt that the baby was coming down forcefully". Rahee was giving instructions to Taljan what to do.

A saying circulated in Apurbabari village, "*Baacha houner shomey moner shahosh aar shoriler shakti lagey* (to participate in childbirth experiences, one needs to have mental strength and physical vigour)." The rural women put emphasis on the two issues in order to have a normal birth; one was *moner shahosh* and the other was *shoriler shakti*. In reference to that, Marsheeda said, "If birthing women are not mentally and physically strong, they won't be able to give birth by themselves." The relationship of *moner shahosh* and *shoriler shakti* with psychological and physiological experiences was reflected in the words of Tohmeena, "Your mental strength arises from your mind and your physical strength from your body." Women believe that this knowledge influenced them to understand their bodily mechanisms and enabled them to give birth. For example, Raheemon observed, "Only if you have *moner shahosh* and *shoriler shakti*, you can correlate your labour pain with the downward movement of the baby and understand when to push." On the other hand, Kamila, a daini, added, "If women do not sustain *moner shahosh* and *shoriler shakti*, they lose their *disha* (sense) during the birth event and become confused with labour pain and the movement of foetus." This knowledge has been circulating among rural women for generations. They acquired the knowledge of *moner shahosh* and *shoriler shakti* from other women, such as their mothers, grandmothers, sisters, relatives, neighbours, and dainis. *Moner shahosh* and *shoriler shakti* were seen to influence each other. The women considered the psychological and bodily experiences of childbirth as a collective power.

In rural birth settings, women's articulation of the collective influence of *moner shahosh* and *shoriler shakti* is the expression of uniting mind and body in giving birth. This harmonious connectedness and understanding of bodily mechanisms is intensified by the synchronized cooperation of all women participating in the birth event. Rural women share their bodily experiences by telling stories and providing emotional support.

Similar practices observed in birth events across cultures are considered useful by many experts (Cosminsky 1982; Jordan 1983; Kay 1982; Kitzinger 1997; Belle 2008). As Jordan (1983) stated, birth is a communal or collective event and dainis, similar to *parteras* of Latin America, along with birthing women, participate together and are mutual exchangers of knowledge. The understanding of bodily experiences influences women to participate actively in birth. Davis-Floyd (1994)

denotes it as an inner knowing or women's intuition, which is an important characteristic of the indigenous model of birth. Graham and Oakley (1981) claim that this knowledge is women's own capacity to sense and react to the sensations of their bodies. This inner knowing is socially constructed created from women's personal and shared experiences that become embodied.

During observations of deliveries in rural Bangladesh we found non-restriction of movement, intermittent walking and resting, holding onto a bamboo pole or rope, taking on different postures, self-evacuation of bladder and bowel, non-interference in actual birthing, and methods employed for perineal protection and placental expulsion. In addition, women are served warm rice and encouraged to drink warm water or milk, and warm compression applied over the perineum improves the healing process, quickens uterine involution and gives comfort to birthing women. In birth events, massaging oil on the birthing women's head and abdomen, shaking their waists and lubricating the perineal area with oil are commonly performed by dainis to ease the process of birthing. Other women assist by pressing the limbs and embracing the birthing women.

The dainis' role remains significant for providing both physical and emotional support to birthing women. In birth events, even with their experience and skills, dainis try not to take over the birthing experience, but to open a space where birthing women play a pivotal role. Dainis' supporting role is expressed in their voice and touch, and familiar rituals are important to make physical and emotional attachment with women, which is missing in hospitals. Mutual communications with dainis, sharing of knowledge and continual encouragement create a horizontal, non-hierarchical relationship where women gain confidence to participate actively. Moreover, the role of other women, especially female relatives, was crucial to the success of the total birthing process. These women provided emotional and physical support to birthing women. During the birth, women shared their own stories and tried to make the environment cheerful and relaxed. Kamila explained how she retold "stories just to keep the atmosphere lively" and assist the birthing women. Women prayed, "Please God, help this poor woman. Give her strength to bring the baby out," and a number of them also recited Koranic verses to provide emotional support and reinstate birthing women's mental and physical strength.

According to Trevanthan (1997: 84), "Perhaps one reason that birth is such a powerful emotional as well as physical experience for all women is that it is these emotions (e.g., fear, anxiety, uncertainty) that lead them to seek assistance, whereby mortality is reduced". Companionship is critical in birth events.

Despite the social and emotional support, in rural societies, birthing tends to be a secret matter. A proverb in this village was, "*Joto rao hobe, toto deri hobe baccha houne aar toto koshto hobe* (the more people talk about the birth event, the more time it requires and the more suffering occurs when giving birth)." Thus, to avoid birthing problems, birth events were observed very secretly in Apurbabari village. When labour began, birthing women carried on their daily chores. The other women in the household also remained silent. They did not even aspire to share this with their male counterparts. Women who were likely to attend the birth event asked the birthing women about the progress of their labour and simultaneously carried

out their daily tasks as if nothing was happening. The event was performed so quietly that close female neighbours were sometimes not aware of it. Enduring pain in silence was commonly observed during childbirth. Birthing women were invariably eulogized for their silence in labour. This cultural expression of pain brought them self-pride. The women wanted their labour process to be quiet and did not intend to express pain unless it became unbearable. Kamila, however, gave an opposing view about the understanding of birth secrecy, "Birth event is performed secretly not to avoid prolonged labour but to avoid a gathering of people." While women had different views on these issues in the village, most believed that maintaining silence was important and showed their endurance of pain and ability to control their bodily experiences. As Rownak explained, "I was having a severe headache during my labour pain, but did not tell anyone. Later on, I lost consciousness and was taken to the hospital. At the end, I gave birth to a dead baby." Sometimes, as in this case, women's silence led to life threatening situations and delayed access to timely obstetric care, which might result in the death of the mother and baby.

Medicalization of Birth and Authoritative Knowledge

The word hospital derives from the Latin "hospitalis" which refers to "hospites" or guests (Turner 1987). The original meaning of the term is preserved in the notion of hospitality. But the hospitals in Bangladesh carry a sense of fear for countless rural women and their families. One woman said, "I pray that Allah does not take anyone outside the home for childbirth and delivery!" As Oakley (1980) states, giving birth in hospital means submitting oneself absolutely to medical authority. The dominance of biomedical professionals and the devaluation of birthing women was observed in medicalised birth events occurring in Bangladeshi hospitals and has been documented elsewhere (Afsana and Rashid 2000).

For many poor families coming to a hospital is filled with uncertainty and fears of enormous costs which they cannot meet. Many families who arrive with the pregnant women usually collect some cash, but have no idea about the amount of money required for delivery in a hospital. The first initial cost incurred is transportation, and the situation is aggravated by denial of admission and treatment by different health facilities, forcing families to move frantically from place to place. For example in Romila's case, before reaching the Medical College Hospital, the family had to change transportation several times. Her husband said, "We took the rickshaw to go to the Thana (government) hospital but later, they sent us to the district hospital. We took a bus to reach there. They also couldn't treat my wife's problem. From there we hired an ambulance to come to this big hospital." Another woman's husband comments, "Our home is far from here. It takes three to four hours by bus and then we have to take a rickshaw to reach home."

Once they arrive, poor women and their families are faced with much unfamiliarity and anxieties, from the teeming crowds of patients to large rooms and buildings. Shahana's case was a perfect example. Her mother and mother-in-law were scared to death in hospital buildings. When the doctor instructed them to buy medicine,

they embraced each other and started crying. For fear of getting lost, they were hesitant to leave each other. Her mother said, "We were terrified by the massiveness of the building. It's like a puzzle. One can easily get lost. We feared losing contact with each other." The mammoth structure of the buildings did not bear any resemblance to the small huts in their own villages. Families were also confronted with congested and dirty environment of wardrooms and toilets. Floors were discoloured, sticky with dirt, and speckled with sputum, blood, vomitus and urine in some places. Leftover bits of food, used cotton balls and papers were scattered on the floor. The tin bowls used as rubbish bins were left open under beds resulting in a foul smell. The bed sheets were discoloured and old, and were only changed when new patients arrived. The windows were mainly closed, creating a suffocating atmosphere. Patients, attendants, ayahs [female hospital aides] and even nurses threw water on the floor and wall while cleaning their hands or rinsing their mouth. People also spat on the floor and walls. For many women the feeling was, "to get good services in the hospital, you need to know someone there. If you don't know anyone, you are in trouble."

Many families borrowed money to pay for the costs of blood transfusions, medicines, caesareans and paying off brokers, bribing ward boys and ayahs in the hospital for access to basic facilities. They incurred huge debts. Each patient was charged slightly over the standard fee, paying Tk 10 instead of Tk 7.50.[3] Furthermore, many women and their families were asked for "special" payment by special ayahs and ward boys whose job was to assist patients to settle in at the hospitals. On refusal of payment, the patients and their families were misguided and the staff became uncooperative. The estimated total costs for normal childbirth was about Taka 800 at the government Thana Health Complex and Taka 1,600 at the Medical College Hospital; for caesarean sections it was about Taka 15,000 in the government Thana Health Complex. Nurses also expected to be paid for assisting in child delivery. To pay for all these costs required cash, which was not accessible to the poor. They usually did not have assets or savings and thus borrowed money from the moneylenders at very high interest rates.[4] They also raised money by selling cows, goats, land and even the tin-roof of their huts. As one woman explained the typical experience for many, "In the hospital, we don't know anything. We can't read and write. We run here and there... Who has so much time to accompany and who has so much money to bear the costs? I hate moving around and being taken advantage of." Because they had few reading and writing skills, birthing women were disempowered in the hospital, and humiliated and betrayed at every point.

A major fear of pregnant women who come to deliver at hospitals is the possibility of "being cut open" and seen by male doctors. Having an episiotomy incision was considered a social stigma, "a mutilated body". A woman who underwent episiotomy said, "Body parts become defective when one cuts the vaginal area. It also affects the sexual relationship with the husband."[5] Many of the women from this village were worried about the presence of male doctors in hospital births. Rural women linked the presence of male doctors with the issue of *sharam*. Sharoma said, "I don't dare to go to the hospital. *Purush* (male) doctors work there. They will see

your body. It's a matter of *sharam*. Everyone in the village will know that a *purush* doctor has seen your body. They will tease you and also insult you".

Sharam was very much related to revealing private parts. Birthing women felt *sharam* by exposing their private parts; even dainis, who are always women, avoided seeing a woman's vagina when delivering the baby in home births. In home births, women covered their perineal area by pulling their petticoats over their legs. In hospitals, women felt over exposed and ashamed that a male doctor was able to view their bodies and they had no control over the situation. All the women interviewed were concerned with the violation of their privacy by the presence of male doctors in birth events. The entire experience of labour can be traumatic for the uninitiated in the hospital environment. Women are typically placed on a labour table with restricted movement and instructed to bear down by an intern doctor who stood near the birth canal. Below is an experience by Rubina in the labour room of a tertiary hospital, which is fairly typical for poor rural women in Bangladesh:

When I met Rubina, she was lying on the bed. Her family was frantically running around in the large hospital with its maze of corridors, unfamiliar spaces and unfriendly faces. Her mother said, "I get lost here. For any help, people ask for money. Paying in each place is a major problem." Rural woman do not feel comfortable lying undressed on a labour table in front of strangers and the lack of privacy in the crowded hospital wards compounds the problem. She explained, "In the labour room, the *apas*[6] removed my petticoat from the bottom. As I was trying to cover my private part, they said that there was nothing to feel shy here. When I tried to straighten my legs, they pushed my legs back." Rubina was not allowed to get up and go to the toilet. She was ashamed, fearful and felt humiliated. In Papreen's case, the nurse examined her and immediately started saline and oxytocin. She did not communicate verbally with Papreen at all. The female attendants responded to her inquiries. The nurse inserted her gloved hand into the vagina consistently stretching the vaginal walls. Within an hour, the baby was born. Papreen later shared, "I was very scared. I had so much pain, but didn't utter a word. I wanted to be quiet. I didn't know what they would do to me or to my baby. I didn't see anyone in the labour room. It's only the nurse and the ayah. I wanted to shout and cry, but couldn't. I wanted my mother there, but couldn't tell them." In another case, Rumpa was not allowed to move and she had her two hands strapped down during delivery. Oxytocin in intravenous saline was being administered. . .an intern doctor gave her instructions to bear down, "Push, push." Rumpa expressed her dissatisfaction, "It is strange! One can't choose to stand or sit in the labour room or even move on the labour table." Rumpa's verbal consent was neither taken nor was she informed of what was being done to her body.

The interactions between the doctors and the women did not involve direct verbal communications. Rather, interactions commenced with frequent handling of the woman's body, as the doctors conducted clinical examinations and initiated medications. Only in a few cases did nurses in local government clinics allow mothers to recite verses from the Koran and in one case, herbal roots were tied to a woman's thigh to induce labour. As the nurse said, "It does not hamper our conducting labour. Why should we discourage it?" Overall, the experiences of giving

birth in the hospital brought to the women a feeling of alienation, of being in a different world – a world of isolation where they sensed a smell – the smell of hospital '*huspateler gondho*'."

In contrast to home births, touch is expressed as restraining or punitive (Kitzinger 1997) in the hospitals of Bangladesh when doctors and nurses restrict women's movement and disgrace them with verbal and occasional physical abuse or completely ignore them. This feeling gives rise to a desolate experience where women feel victimized, violated and invaded, which Kitzinger (1997: 229) denotes as "violence against women". In most cases, rural women feel intimidated when interacting with health providers, and are often scared to voice their feelings as they fear facing abusive and condescending behaviour from doctors and nurses. The communication of biomedical professionals with their patients was predicated on muteness among the latter. When women were keen to express their subjective experiences of physical problems, their voices were muted either by being ignored by non-response, or being abused with a harsh response. A number of observations outlined below highlight this situation.

Patient: *Apa*, (sister), I am having so much pain. I can't bear it anymore.

Doctor: Didn't you remember that when you slept with your man?

A birthing woman was left unattended on the labour table. Suddenly, her perineal area was bulging and the baby's head was seen. The woman started to hold her legs together to prevent the baby coming out. A doctor rushed to her scolding, "*Magi* (a prostitute), how dare you? Open up your legs." She spanked on the woman's thighs. The woman, frightened, spread open her legs and the baby came by itself. In another instance, a birthing woman was screaming due to her intolerable pain. The attending doctor spanked on her leg and shouted, "If you scream one more time, I will hit you again." The doctors were usually not aware of their own behaviour.

The medicalised experience of birth and unusual experiences in the hospital reinforce rural women's patience and silence. The body becomes the place of contestations of power to make patients disciplined and self-regulating – "docile" bodies (Foucault 1978). As a consequence, rural women silently conform to the authority of doctors and nurses. As Foucault (1978) reasons, where there is power, there is resistance. Women's silence does not indicate agreement with everything; rather it is expressed as resistance against the medicalised experiences. Silence is approved as a mark of discipline, but resentment is expressed within silence. Social legitimation of authoritative knowledge is produced within the tremendous power imbalance that precludes women from the process of birth. Jordan's (1993) explication of authoritative knowledge in American hospitals establishes physician and medical staff as the dominant possessor of knowledge. The authoritative knowledge of biomedical professionals developed on Baconian scientific rationality produces the "medical gaze" (Foucault 1973: 137) that deeply infiltrates into rural women's bodies to know their invisible meaning, but not their clinical or personal realities (Nandy 1995). In the process, childbearing women deliver a baby, but their embodied knowledge is disqualified as "subjugated knowledge" (Foucault 1980: 81). Jordan (1993: 165) and Rothman (1982: 181) observe women's

positionality in hospital birth versus homebirth. In relation to hospital birth, Jordan comments, “She is not giving birth, she is delivered”. On the other hand, Rothman states, “A woman at home is not delivered. She gives birth”.

The arguments explicitly underpin the situation in Bangladesh where the dominant authoritative knowledge of biomedical professionals ascends over rural women’s experiential knowledge, making the women marginal in their own birth experience. With these bitter experiences, many rural women go back home. Their terrible experiences create fright among other village women and make them disinclined to seek hospital obstetric care.

Role of the State and Maternal Health

Bangladesh is a modern state and the power of modernity shapes ideas and practices relating to health policy and planning. The National Maternal Health Strategy emphasizes the reduction of maternal mortality and morbidity by modernizing obstetric care. In Bangladesh, more than 85% of births occur at home. Of the total estimated annual births, only 7.1% take place at government health facilities and 7.6% at private clinics (BDHS 2007). The state cannot afford to provide adequate obstetric services to 7% of births and thus, it would be a dreadful situation if the number of births at public hospitals increases. The under-resourcing of hospitals occurs not only because of the “lack of resources" in the country, but also because of “who has control over these resources” (Navarro 2000: 673). This is reflected in the maldistribution of resources at the national level where defence expenditure in Bangladesh represents 1.15% and health 1% of the GDP (Ministry of Finance 2008).

The tremendous costs of hospital services essentially prevent rural, poor families from seeking hospital obstetric care. The expenditures put appalling demands on poor families, which Kothari and Mehta (1988: 187) refer to as “fiscal violence”. Modern, biomedical treatment is economically and socially distant from the poor. The majority in Bangladesh do not have the capacity to bear the expenditures. The costs incurred in normal birth in Medical College Hospital are close to the monthly income of many poor families. The combination of hospital costs and processes on the one hand, and the circumstances of poverty, on the other, make rural women vulnerable to the fiscal and social violence of modern biomedical treatment.

Indigenous knowledge of dainis is continually challenged. The disregard for traditional midwives is the result of colonial devaluation of indigenous knowledge. In ancient India Dai practices were highly criticised for the lack of hygienic standards decided by the missionaries and white woman doctors (Somjee 1991; Ram 2001). To ensure safe delivery, the TBA (Traditional Birth Attendant) training program began throughout the developing world with the Safe Motherhood Initiatives of the World Health Organisation and UNICEF. In Bangladesh, under the Directorate of Family Planning, a nationwide TBA training program began in 1979 to improve maternal and child health (Akhter et al. 1995). In the mid-nineties, TBA

training was discontinued because the program did not seem to reduce maternal mortality (Ministry of Health and Family Welfare 1998). Failure of the program is blamed on TBAs for not incorporating biomedical knowledge into their own practices. A new cadre of midwives known as community skilled birth attendants have recently been introduced in Bangladesh to improve maternal health situation. However, dainis continue to serve the community, but because of new policies they are not included as providers in the maternal health strategy. As result, rural, poor, women who mostly seek care from dainis fail to reach hospitals on time because of the social, cultural gaps and loopholes in the health system.

Bangladesh continues to acknowledge and strengthen modern, obstetric practices while it marginalizes indigenous birth practices. This eventually results in a situation where the state's approaches to reducing maternal mortality and morbidity turn into a charade for rural, poor women for whom it is intended.

Conclusion

Childbirth is constructed in discursive practices that influence women's use of birthing care. Understanding of birth, women's silence, active participation in birth, a supportive environment, and trust and dependence on dainis' skills persuade women to adhere to indigenous birth practices. On the other hand, the authoritative knowledge of biomedical professionals, the medicalised experience of birth, the interpersonal relationships with doctors and nurses, hospital costs, and unpleasant experiences cause women's resistance to hospital obstetrics. Childbirth is medicalized and turned into a commodity in modern, capitalist society. The state facilitates modern, obstetric practices making the whole system into a business enterprise which is socio-economically and psychologically distant from the rural, poor women. The construction of birth produced in power struggles of social, cultural, economic and political forces affects rural women's health seeking, which may not always be conducive to the survival of mothers in rural Bangladesh.

Notes

1. The historical data from Matlab, Bangladesh reveals that access to emergency obstetric care has reduced maternal deaths (Chowdhury et al. 2007). Socio-economic improvement, higher education and access to abortion care and family planning are also associated with reduction of maternal deaths. However, if resistance to hospital obstetric care remains as it is among rural, poor women, some maternal deaths cannot be averted (Afsana 2005).
2. The case stories in this chapter are based on interviews with over 100 rural women using data from original ethnographic fieldwork along with participant observation of home and hospital births. The fieldwork was carried out in 1998 and 2001 in rural villages of Bangladesh.
3. US$1 = Taka 70 BDT as of August 2008.
4. A study done in Dhaka city demonstrated that the total costs for normal childbirth at the hospital was Tk. 1,275 (US$31.9), and for caesarean sections Tk. 4,703 (US$117.5) (Nahar and Costello 1998).

5. Similar issues were raised by women in other research surveys conducted in Bangladesh (Afsana and Rashid 2000).
6. *Apa* (sister) is a respectful term used to refer to a woman, especially older women.

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Pregnancy and Childbirth in Nepal: Women's Role and Decision-Making Power

Pratima P. Acharya and Dilu Rimal

Nepal is a land-locked country situated between India and China. The landmass of Nepal is 147,181 sq. km and the population is 23.1 million (Central Bureau of Statistics 2001). Nepal is famous for outdoor adventures, as eight out of ten of the world's highest peaks are there.

This country's lifestyles, dress and foods are similar to China and India as it advances through the trans-Himalayan and North-Indian trade route. Although only approximately 11% of Nepalese believe in Buddhism, Buddha's spiritual thoughts spread throughout the world from within the borders of present day Nepal. However, about 81% of its population believes in Hinduism, and Nepal was the only Hindu kingdom in the world until 2006, when a secular constitution was adopted. Nepal has a history of originating two major religions in the world.

Nepal is one of the poorest countries in the world, with a gross domestic product (GDP) of US$1,500 (CIA 2007). The country's difficult topography, lack of natural resources and lack of sea access isolated it for centuries and slowed down economic growth. Many Nepalese are still living in isolated villages without transportation, electricity and means of communication and travel by foot for food, clothes and healthcare to town centers.

As shown in Fig. 1, Nepal is divided into three main regions based on topography: mountainous (snowy mountains), hilly (middle) and terai (narrow strip of flat terrain). The density of population is rising in the terai region, because the topography is suitable for agriculture. The climate varies significantly between regions from extreme cold to moderate and hot in the mountain, hill and terai respectively.

Nepalese communities have a multi-ethnic and caste system. Each ethnic group and its castes has its own culture, lifestyle and beliefs. Although there are 102 ethnic groups/castes (Central Bureau of Statistics 2001), they can be divided into two

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Fig. 1 Map of Nepal retrieved from worldAtlas.com. Used with the kind permission of the publisher

main ethnic groups: Indo-Aryan from India – Nepal's largest ethnic group – and Tibeto-Burmese.

Women and Power

Traditionally, Hindu values and patriarchic ideology are the governing forces of the Nepalese social system, and these establish the status of women and their power. Although some exception exists in Tibeto-Burmese groups, the increasing trend is towards adaptation of these values by upwardly mobile groups (UNICEF 1996). In Hindu mythology, the goddess Laxmi symbolizes women's birth. In addition, women divinities such as Durga [mother of the universe] and Kali [a form of the

mother goddess] hold equal power as men. However, in reality, women have a lower status than men. Thus, socially constructed gender ideology, i.e. patriarchic rule, plays a key role in defining women's power and status.

Because of this, the birth of a baby girl is not often welcomed. Women did not have birthrights over patriarchal property until 1990 and they are excluded from the death rite of their parents (Malla 2000). By contrast, our tradition and cultural system recognize the status of sons, knowing that they will carry the family name and provide a gateway to heaven by performing the death rites of their parents (UNICEF 1996). It is therefore, mandatory for a Nepalese family to have at least one son to gain the above rights and control over parental property. In most of the developing world, even where women are economically independent, women's pride and prestige is determined primarily through their roles as sons' mothers (Van de Walle and Ouaidou 1985). Further, women consider bearing more children, as they wish to have more sons and improve their social and spiritual status. This puts women in a paradoxical situation by creating a high fertility rate, which often involves related complications and even death (Thaddeus and Maine 1994). The maternal death rate is 281/1000 with a high fertility rate of 4.01 children born/women. The average annual birth rate is 30.46 /1000 women (CIA 2007; USAID 2006). Approximately 868,540 women get pregnant in Nepal in each year and 10% of these pregnancies end up with surgical abortion due to complications during pregnancy or self-birth termination with herbal remedies.

Education and socialization play a pivotal role in developing courage, self-confidence, self-esteem and decision-making ability. Education and socialization between boys and girls in Nepal differ (UNICEF 1996). For instance, many Nepalese parents invest in the education of their sons, because sons support their parents when they are old (UNICEF 1996; Subedi 1993). To some extent, underdeveloped retirement schemes increase fear and insecurity during old age, further emphasizing the importance of investment in boys' education (personal experiences, 2006). Instead of being educated and socialized, girls are protected against wrongdoings relating to their character and virginity, which may exaggerate unnecessary harassment and burdensome marriage. Girls in Nepal must marry. They are brought up with many social restrictions and interact only with their mothers inside the home, where they learn family values and household chores (Tuladhar 1995). In addition, decision-making, opinion-formation, strength of expression, and assertion of needs are discouraged during the growth and development processes. Such processes ultimately suppress emotional growth and personal power and freedom, but they develop "feminine" qualities such as self-denial, self-effacement, unassertiveness, gentleness, sacrifice, obedience and submissiveness (Subedi 1993). In this way, a daughter grows up without her own rights and the power to control her own life, but she certainly knows family duties.

Women learn to remain under the control of men throughout their lives, as they must depend on their father before marriage, then on a husband and finally on a son in their older years. Nepalese girls face early marriages before the age of twenty. This also lowers the female literacy rate, which is currently 35% (CIA 2007; personal experiences 2004).

Reproductive Health

The reproductive health of women to a large extent is determined by general health. This means that the health of the mother begins with her own birth, and includes how she had been looked after in her childhood. During pregnancy and around the time of childbirth, the health of the woman depends on her pre-pregnancy health status, nutrition and access to health care. In many developing countries including Nepal, the girl child is discriminated against in accessing quality health services and food, both in her early childhood and later in life when resources are scarce. A study conducted by Hossain and Glass (1988) in Bangladesh indicates that doctors were consulted three times as often for sons than for daughters. Further, purchases of drugs prescribed by physicians were approximately three times as frequent when the prescription was for a boy. A study conducted in Asia (Glik et al. 1986) said that parents' expenditures often reveal a preferred investment in their sons' health. Further, they found that even where health care and transportation costs were free of charge, parents used services more frequently for ill boys than girls. Thus, the low value placed on girls adversely affects their utilisation of health services.

It is customary for the men to eat first, and to eat the most and the best, leaving the women and children to eat last and the least (UNICEF 1996). Then, mothers feed sons the best of what is left at the expense of their own and their daughter's nutritional wellbeing. This traditional practice is seen as offering consideration and respect to the men who leave home, finding food to feed their families. This is one of the main reasons for the high incidence of malnutrition in girls who grow up to bear growth-retarded infants, thus perpetuating their failure to fulfill their genetic potentials (Krasovec 1991). Coupled with poor education, under-nutrition and minimal healthcare services, girls grow up with nutritional deficiencies, such as insufficient intake of vitamins and minerals including calcium, iron and vitamin D. This may result in contracted pelvises, obstructed labor and chronic iron deficiency and often death due to severe hemorrhage during childbirth. Royston and Armstrong (1989) concluded that the impact of gender discrimination on maternal mortality has been largely ignored, and it has been subsumed within the general issues of poverty and underdevelopment, which is assumed to put everyone at equal disadvantage in health terms. Additionally, women's growth and development before pregnancy is critical to childbearing, and this impacts both the infants' and mothers' health.

When women's needs are neglected during the reproductive years, there are extreme implications for women and future generations. Reproductive health determines the wellbeing of the mother, the fetus, the infant, and the child (either boys or girls) and in turn determines the health and reproductive capacity of the next generation's mothers (World Health Organization (WHO) 1995).

> Reproductive health refers to women capable of having a responsible, satisfying and safe sex life, who have the capability to reproduce and the freedom to decide when and how often to do so. Women have a right to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning or other methods for regulation of fertility according to their choice, which are not against the law. In addition, they have the right of access to health care services that make it possible for women to proceed safely

> throughout pregnancy and delivery and that provides the couple with the best chance of having a healthy baby (UNDP/UNFPA/WHO/World Bank 1997: 3).

The section below highlights women's rights and powers over controlling their own fertility and childbirth.

Power During Pregnancy and Childbirth in Village Areas

The ability to create a human being is a unique source of female generative power and often represents the traditional base for defining and recognizing the status of women in society. This power of women is sacred, inexplicable and from mysterious sources as indicated by recent phenomenology and embodiment approaches (Dornan 2004). Pregnancy and childbirth not only bring a time of great hope and joyful anticipation, but also a time for fear, suffering, and sometimes even death. In developing countries, most women do not have the privilege of access to care and support during pregnancy and each pregnancy represents a journey into the unknown from which many women never return (World Health Organization 1998).

Pregnancy is often associated with risks to health and survival both for the woman and the infant. These risks are present in every society and setting. In developed countries, they have been largely overcome by the provision of proper care during pregnancy and childbirth for all pregnant women (World Health Organization 1998). Indeed, women's decisions about sexuality, fertility, pregnancy, childbirth, and healthcare during that time are largely controlled by the values and gender ideologies prevailing within the society. For instance, the negotiation of sex in heterosexual encounters is shaped by the power that men exercise over women at all levels in male-dominated societies (Poudel and Carryer 2000). Because of bride price, men acquire the exclusive right to their wives' wombs. A wife has no right to the regulation of her reproductive and sexual functioning (Varkevisser 1995). This creates an unequal power relationship between men and women reinforced by culturally based male dominance ideology and female submissiveness. This delays the decision-making concerning medical and obstetric health seeking behaviour. In addition, girls' socialisation, education and economic dependency following marriage also force them to depend on their husbands and his family and seek decisions from others on their own health care. The husband and his family income largely determine goods, services and assets available at their own house. This influences maternal health by determining the quality of food, transportation, and healthcare during childbirth and pregnancy.

Thaddeus and Maine (1994) conducted a study on causes of maternal death considering cultural practices in seeking regular healthcare during pregnancy in Nigeria, India, Ethiopia, Korea, and Tunisia. They showed that women are often not able to decide on their own to seek timely care, awaiting decisions from senior members of the family, such as their spouses or their mothers-in-law. Moreover, women's mobility is often limited because they require permission from their mothers-in-law or spouses to travel away from home. This practice is common in Nepal both in rural and urban areas (Poudel 1995). When women face obstetric complications,

they tend to use the health care facilities available within their own community. Often these facilities are inadequate. For instance, positions for trained health workers, especially doctors, health assistants, and staff nurses remain unfilled in district hospitals due to topographical difficulties, lack of basic resources for functioning, and again the unwillingness on the part of health personnel to stay away from urban centers (The Ministry of Health 1996; UNICEF 1996). Health services in some areas of Nepal are far from ideal. Sometimes drugs run out before the new supply arrives or equipment breaks down and cannot be repaired (The Ministry of Health 1996). The Safe Motherhood Program was adopted to improve such conditions but it is still difficult to enforce because of Nepal's difficult topography, with its lack of infrastructure such as roads and communication systems.

Because of these restrictions, women in villages do not seek medical attention during pregnancy unless complications arise. The mother-in-law would be the first person to know and hold power about pregnancy or childbirth and its related complications. She provides assistance through the Traditional Birth Attendants (TBAs). TBAs are older women who gain respect and recognition from the community for assisting women during childbirth (UNFPA 1996). Only 25% of deliveries are attended by TBAs at home out of 50% of home deliveries.

During delivery, women are placed in a squat position, hanging both hands from the ceiling in a dark room. The TBA provides fundal [the upper part of the uterus] pressure with oil massage. They ask women to push hard without recognizing cervical dilations. If labor is prolonged, traditional healers are called to encourage the labor and minimize the pain. Further, if the placental delivery is not normal, then TBAs or other helpers hang spades for a few days until the placenta emerges. Consequently, women can bleed to death due to post-partum hemorrhage. There are many of these events, but they are difficult to quantify.

Following delivery, women must stay at least eleven days in a dark room having no contact with the sun or with men. Isolation is recommended because the sun represents masculine energy and the symbolic power of the male god and it is sinful to see them. The name giving ceremony is arranged with a ritual of purification for the woman and her baby on the eleventh day where men can participate. During this time, women are given high-energy foods made from ghee [clarified butter], chaku [a sweet of hardened molasses], and a soup of Juwano (caraway) so that they produce more milk. Most of the green vegetables commonly found in villages are prohibited; Nepalese believe that the baby might suffer from green stool and diarrhea. More probably this is caused by contaminated water and poor hand hygiene (Acharya 1999), but that is the tradition. Similarly, commonly homegrown vegetables and herbs such as papaya, honey, taro leaves, and green leafy vegetables are also prohibited during the pregnancy. The myth says that they cause miscarriages.

However, these practices have been decreasing since the safe motherhood program was implemented in Nepal in the 1990s (USAID 2006). The safe motherhood program recognizes the power and prestige of TBAs and traditional healers in the remote communities where healthcare facilities are scarce. Since 1990, TBAs are provided training to prevent mortality and morbidity relating to pregnancy and childbirth, particularly in remote villages.

Power During Pregnancy and Childbirth in Urban Areas

Although we earlier discussed patriarchal ideology and women's subordination within the Nepalese context, there are some exceptions found in women's status and behavior. Women who are educated have different roles from illiterate, uneducated and traditional women. They may have slightly different behaviors and power relations with their husbands and in-laws in health-seeking behavior and control over their own pregnancy and childbirth.

A birth is a rare opportunity for women who are working. Coupled with their education, exposure to the outside world and their self-possessed conduct during pregnancy and childbirth, the birth represents courage and honor to the family. These women can recognize complications and decide to seek care immediately. However, there is an increasing trend with medical practitioners, particularly gynecologists, especially in urban Nepal, who assume the power during pregnancy and childbirth. This often leads to unnecessary medicalization during pregnancy and childbirth, a practice which often takes away the essential importance and satisfaction of childbirth to women.

In Nepalese culture, women are brought up to play a passive, subservient, unassertive, gentle, sacrificial role, so they rarely communicate their own desires or comments on the clinical decisions. A great deal of trust and respect is shown by staying quiet when clinical decisions are made, along with a fear of having poor treatment in case the woman is difficult. Instead of feeling that pregnancy and childbirth are rewarding and joyful occasions, women often become anxious with additional stress when the clinician is unable to consider their emotional needs. However, there are almost no studies which describe Nepali women's power and their relationship with medical practitioners. We need more studies to empower women during their own pregnancies to make more joyful experiences.

Conclusion

We have provided a glimpse of Nepali women, ranging from traditional, illiterate or uneducated to modern, autonomous and educated. Their thinking, behavior, status, power and roles are shaped by the society and culture to which they belong (Bali 1995). An in depth understanding of the social and cultural systems of any community may help to improve women's status and autonomy. Then, we can objectively identify issues relating to women's autonomy and assist in developing awareness programs to improve women's status as a whole.

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Pregnancy and Childbirth in Tibet: Knowledge, Perspectives, and Practices

Sienna R. Craig

> To Tibetans life does not begin at birth, but rather at conception. After death, a being's consciousness... wanders in an intermediate realm until impelled by the forces of its own karma to enter a womb at the instant of conception. Gestation is a hazardous time when women try to consume foods and seek spiritual means to prevent any harm coming to their growing baby. Once born, the child must fight for survival against daunting odds. Infancy is fraught with more hazards than any other stage of the life course, and the infant mortality rate in Nubri is frightfully high. Nearly one in every four children born alive does not live to see his or her first birthday. (Childs 2004: 38)

> As far as childbirth is concerned, we note that scientific medicine claims parturition as one of its legitimate domains. It is no surprise, therefore, that wherever scientific medicine is instituted, childbearing becomes absorbed into the medical domain. This amounts to a redefinition of birth as a medical event. (Jordan 1978: 76)

Pregnancy and childbirth in Tibetan communities presents as a series of paradoxes. On the one hand, the creation and bringing forth of new life is deeply valued and rooted in Tibetans' religious and ethical beliefs about the nature of existence, particularly the gift of being reborn as a human being and the possibility for spiritual achievement this might engender. On the other hand, pregnancy and birth are intensely vulnerable times. The high maternal and infant mortality rates in culturally Tibetan communities serve as painful, embodied reminders of the Buddhist First Noble Truth, the truth of suffering (Skt. *Dukkha*). Indeed, within culturally Tibetan communities, birth is part of the larger cycle of death and rebirth that Buddhists call *samsara,* cyclic existence. It is also commonplace: something that happens between harvest and threshing, or as people move from high summer pastures to winter dwellings. Yet pregnancy and birth also precipitate much pain, fear, and loss. In many parts of the Tibetan Plateau, for a mother to survive a complicated delivery, or, as Geoff Childs points out above, for a child to live past age one, is to beat the odds.

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But what do I mean by "Tibetans"? Following Childs (2008) and Melvyn Goldstein (1997), I use the term in a broad sense to include a range of human communities which are not necessarily united politically, but who are linked through common languages (or regional dialects thereof), a common religion (with much local and regional variation) and a common area of origin (the greater Himalaya/Tibetan Plateau). In China, ethnically Tibetan populations are not only found within the Tibetan Autonomous Region (TAR), but also in ethnographic Tibet: portions of Gansu, Qinghai, Sichuan, and Yunnan Provinces. According to China's 2000 census, Tibetans number 5.4 million, only 2.62 million of whom live in the TAR. Furthermore, there are approximately 130,000 Tibetans currently living in exile (mostly in India), as well as thousands of people who are citizens of India and Nepal but who, in ethnic terms, identify as Tibetan (Childs 2008: 7). The Tibetan Plateau covers approximately 2.5 million square kilometers, much of which lies at 4,000 m above sea level. In China alone, this accounts for one-fifth of the country's landmass, a region equivalent to the size of Western Europe. Tibetans have historically survived in this high altitude environment, marked as it is by extreme temperature and precipitation variability, by employing a range of adaptive strategies: subsistence farming, agro-pastoralism, nomadic pastoralism, and all manner of trade. Over thousands of years, Tibetan human biology has adapted to living, and reproducing, at altitude (Beall 2001, Wiley 2004) (Fig. 1).

Just as this chapter strives to speak to common themes related to pregnancy and childbirth across culturally Tibetan regions, it also draws on sources from a number

Fig. 1 Map of Tibet in relation to its neighbors

of disciplinary perspectives. Relevant secondary literature from the disciplines of anthropology, religious studies, public health, nutrition, and obstetrics and gynecology cohere with primary data drawn from my fieldwork experiences among culturally Tibetan people from northern Nepal and the Tibet Autonomous Region (TAR), People's Republic of China (PRC).[1] And yet, I do not intend this article to be an exhaustive literature review; rather, I wish to orient the reader to some of the specific cultural practices and structural realities that at once contribute to the miracle of (re)birth in Tibetan contexts, and constrain the possibilities of maternal and child health.

In what follows, I describe the biosocial landscape of pregnancy and childbirth among Tibetan communities living in high Asia. I begin with a conversation about birth. This leads into an exploration of Tibetans' knowledge and practices to do with gestation and parturition. I attempt to reconcile the numerous protective measures that Tibetans take to ensure the safety and well being of their pregnant women and children with the high maternal and infant mortality in many of these communities. In statistical terms, where do Tibetans fit within a global discourse on maternal and child health? In addition to a variety of rites and rituals associated with pregnancy and childbirth in Tibetan communities, to what extent does the unique high-altitude human ecology of the greater Himalaya/Tibetan Plateau region impact pregnancy and birth? How does Tibetan medicine – as a scholarly medical tradition and an epistemology of healing linked to Buddhist philosophy, as well as a lived practice – speak to women's and children's health? Finally, I explore some of the ways that experiences of Tibetan modernity has come to include a biomedicalization of birth, accomplished through both state and NGO-sponsored health development programs targeting Tibetan women, and offer a few comments on some emergent consequences of these transformations.

A Birth Story

Lhakpa Droma[2] sat under the shade of a cottonwood tree, on a brilliant autumn day in Medrogonkar County (Lhasa Prefecture, TAR, PRC). The tree's leaves blazed gold in the waning light, and the stream beside which we sat coursed clear and cold over small boulders. A neon blue wool scarf, woven through with silvery thread, covered Lhakpa Dolma's head and shaded her eyes from the high plateau sun. Her chapped cheeks hinted at days spent laboring under the clear intensity of Tibet's skies. It was harvest time now and, as she was from a farming community she had worked alongside other villagers all day, cutting barley stalks; soon they would begin the threshing.

Lhakpa Dolma, who was 32 and married, wore another scarf across her back, into which had been tucked a sleeping infant. As we talked, a minibus driver, a few cyclists, and a man in a horse-drawn cart moved past us, each with his eyes cast down against an imminent sunset. Older village children scampered about, tossing discs of dried yak dung at each other (Fig. 2).

Fig. 2 The author with an interviewee in Medrogongar county, Tibet Autonomous Region, China. Photography by Pasang Tsering

"How many times have you been pregnant?" I began.

"Four," she answered.

"How many children do you have now?"

"Two," she said.

"What happened during the other pregnancies?"

"When I was pregnant about four months, I lost one [miscarried]. The other child was a girl. She came early and did not live long," Lhakpa Dolma answered. Her eyes did not meet mine.

"Why did the baby die?" I asked. This was a difficult question to ask, and, I assumed, for Lhakpa Dolma to answer.

"Maybe because I was working too hard when I was pregnant," she said. "Because I carried heavy things on my back. Many women say this can cause a child to die, or make birth difficult. But if you don't work when you're pregnant, that is not good either. You become weak. When the baby's time arrives, you struggle."

"Who did you tell when you knew you were pregnant? When did you tell them?" I asked.

Lhakpa Dolma's face flushed. Although she had given birth three times, simply *speaking* about pregnancy made her embarrassed, even now. This reaction was characteristic of many of the Tibetan women with whom I spoke.

"I told my husband at about three, four months. Everyone else knew when my belly became big," she answered. Lhakpa Dolma then explained that it was normal to *not* focus attention on a new pregnancy because it might engender jealousy in other women, particularly those who had struggled to conceive.

"How old is your new baby?" I gestured toward the bundle on Lhakpa Dolma's back.

"Two months now."

"Did you find the birth easy or difficult?" I asked. "Did you give birth at home, in the township clinic, or in the county hospital? Who helped you?"

"The baby came without much trouble," responded Lhakpa Dolma. "I gave birth at home. I've never given birth anywhere else. With this one, my husband was with me. With my others, I had help from my mother-in-law. But the old woman has since died."

"Where did you give birth?" I continued.

"After my water came, my husband prepared a place in the corner of our house, away from the hearth."

"Why away from the hearth?" Do you worry about *theep* (*grib)* [pollution, defilement]?" I asked, referring to a source of pollution or defilement that some liken to an "invisible, unclean halo or a "darkness."[3] Lhakpa Dolma nodded in affirmation.

"My husband was with me, but he did not help me cut the cord because he would have to cook while I recovered. He handed me a knife and I cut the cord myself."

"Did you clean the knife before or after you cut the cord?"

"After," she said. "To contain the *grib*."

Lhakpa Dolma's response was typical. Among Tibetans, as in many other cultures, rules about pollution and purity govern much social behavior. In Tibetan contexts, the blood of childbirth is considered defiling. "Would you consider giving birth at a clinic or a hospital?" I asked.

"Maybe," she responded, blushing. "If something went wrong. If I were bleeding too much, or if the baby was still not born after many hours. But then, I would have to find the money for a ride on a tractor or in a car. In an emergency, sometimes people will charge you more. I know women who have gone to the hospital to have their babies," she continued. "Sometimes the result is good. But sometimes they die. Or the baby's *bla* [soul or essence] can leave its body. With all those strangers around, anything can happen." Lhakpa Dolma spoke with a sense of authority now, as if she had heard this adage many times. Everyone knows that a young sentient being, not yet at home in this world, is particularly vulnerable to assaults by spirits or demons.[4] Indeed, an infant is rarely taken out of the house at night to prevent evil spirits or other maligned beings from causing the child to become ill. Many Tibetans take particular care to protect children from experiencing undo fright, since it is believed that infants – closer to the liminal state between death and rebirth than the rest of us – can see, experience, and be harmed by forces to which adults are immune.

"Before your baby was born, or after, did you go to the township clinic for check-ups?"

"I went once before giving birth. The health worker took my blood pressure and listened to the baby's heart. I know that I could go more often. The checkup is not expensive. We just pay a few *yuan* to belong [to the Cooperative Medical System (CMS)]. But sometimes the health worker is not around. Other health workers do not know much, and sometimes I feel shy around them. Also, the ride to the clinic is expensive and uncomfortable, and it is difficult to find time." As if to illustrate, Lhakpa Dolma glanced toward the dirt road, potholed and weathered, that connects this 'natural village' to the nearest township, and then on to the county seat.

"I would only take a child to the doctor if it were sick – if it refused to drink my milk, if it had a fever or diarrhea."

"Do you know any women who have died during childbirth?" I asked.

"Yes, a few," said Lhakpa Dolma.

"Why did they die?"

"Sometimes they lose too much blood. Other times they are weak or they have fits," said the young mother, signaling conditions we might 'read' in biomedical terms as postpartum hemorrhage (PPH) or eclampsia – two leading causes of maternal mortality.

"And if a new baby dies soon after birth? What are some reasons this can happen?" I asked.

"Sometimes they are too small or weak, or cannot drink their mother's milk. Or their bodies are fine, but they are breathless," Lhakpa Dolma continued. Although her understanding of "breathlessness" likely differed in some ways from the biomedical category of birth asphyxia,[5] her intuition about predominant cause of mortality for children under five aligned closely with county health statistics and with clinical observations made by foreign researchers working on this project, including verbal autopsies.

"How did you feel when you gave birth to your daughter?" I asked, motioning to the sleeping papoose on her back.

"I was worried," she said, "and also happy, and tired."

Tibetan Health/Global Health

Unlike many cultures in the world, Tibetans have no history of formalized birth attendants, or midwives. A female relative often assists during childbirth. Sometimes a husband is present. But women just as often give birth alone. Sometimes women will deliver in an animal pen, so as not to offend household protector deities and other spirits or pollute the hearth. Women rarely prepare a layette until after the birth, because, "When there is too much preparation, the baby may die at birth (Sangay 1984: 6). Even in the postmodern milieu of urban Lhasa, with its high rises and wide boulevards, approximately two thirds of women still deliver at home (OneHEART 2007).[6] Many women access hospitals as a last resort, for reasons that are both cultural and socioeconomic (Adams et al. 2005a; Chertow 2008; Heydon forthcoming; Pordié and Hancart Petitet forthcoming; Gutschow n.d.). From a biomedical and public health perspective, many of these practices are viewed as "unsafe"[7] in that they put women at risk of dying from what biomedical providers and public health experts would consider "manageable" complications such as pre-eclampsia, sepsis, or PPH. Furthermore, from a biomedical perspective, practices such as giving birth in animal pens, cutting the umbilical cord with an unsterilized knife or feeding a child butter and roasted barley flour in its early weeks of life, places Tibetan women and their newborns in harm's way. These practices may contribute to the high maternal and infant mortality and morbidity rates among Tibetan communities. Likewise, one can argue that poverty, malnutrition, and a variety of other conditions of we might recognize as products of structural violence – social, economic, and geographic barriers to reaching medical services or to receiving adequate care, state enforced policies that delimit a politics of reproduction, etc. – are a factor in the premature deaths of Tibetan women and children.

Mortality and morbidity rates in Tibetan areas of China, and to a lesser extent among culturally Tibetan communities in India and Nepal, are difficult not only to access but also to assess for accuracy. However, the information available is remarkable. For example, the maternal mortality rate (MMR) for some regions of the TAR is reported to be as high as 400/100,000 (Adams et al. 2005a: fn. 1). This is compared with an average of 290/100,000 in Nepal, 45/100,000 in China as a whole, and 11/100,000 in US (WHO 2007). Likewise, infant mortality is at once high and chronically difficult to measure. Some health development agencies have

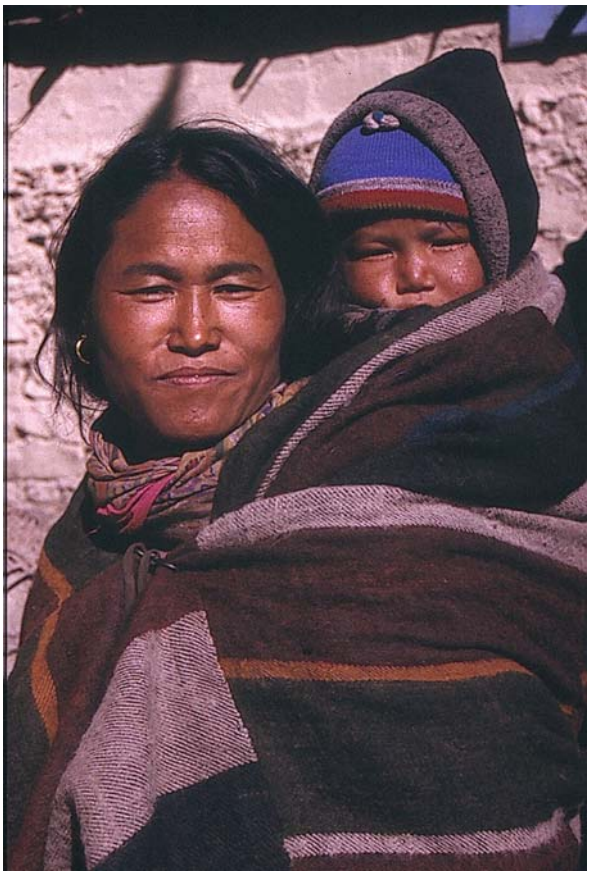

Fig. 3 A mother and child in Mustang district, Northern Nepal, Photo by the author

said that as many as 20–30% of Tibetan children die within their first 12 months of life; other statistics put the numbers at approximately 90 neonatal deaths per 1000 live births (OneHEART 2007). One Lhasa-based hospital study of maternal and neonatal outcomes ($n = 2540$) reported a neonatal mortality rate of 42.9/1000 (Yangzom et al. 2008: 319). Despite the variation in quantitative data, the numbers still point to high rates of suffering and death among Tibetan mothers and children (Fig. 3).

Let us put these numbers in a global context. According to the WHO (2007), approximately 536,000 maternal deaths occur worldwide each year, 99% of which are in developing countries, and 86% of which occur in Sub-Saharan Africa and South Asia. This translates into the oft-cited statistic of nearly one maternal death *per minute*. More than 60% of these deaths occur during or just after labor and delivery. Over half of these maternal deaths are caused by PPH, sepsis/infection, and obstructed labor. Death and disability from maternal causes account for nearly 20% of the total burden of disease for women of reproductive age in developing countries. These stark numbers have led the United Nations to include in their

formulation of the Millennium Development Goals (MDGs) the aspiration of reducing by two thirds the mortality rate of children under five (Goal 4), and reducing by three quarters the maternal mortality ratio, and achieving by 2015, universal access to reproductive health (Goal 5) (http://www.un.org/millenniumgoals/). According to the WHO, the two most effective ways of decreasing maternal and neonatal mortality is to (A) have a skilled birth attendant (SBA) present and (B) have timely access to emergency obstetric services. In many Tibetan communities, neither is possible.

Becoming Human: Buddhism, Tibetan Medicine, and Folk Knowledge

And yet, both Tibetan religious and medical traditions speak directly and extensively to the experiences of pregnancy and birth. Indeed, the history of Tibetan Buddhism and the "science of healing" (*gso ba rig pa*) are deeply intertwined. Found within the vast corpus of Tibetan medical and religious writings is a deep, scholastic, and morally imbued discourse about embryology – what it means to, as Garrett (2008) puts it, "become human" in the Tibetan context. From the *Four Tantras* (*rgyud bzhi*), the fundamental text in Tibetan medicine elaborated in the 11th–12th centuries (Meyer 1995), and its numerous commentaries, to more overtly "religious" texts such as the text often referred to as the *Tibetan Book of the Dead* (*bar do thos grol*) and treatises on Buddhist tantric practice, the processes by which a consciousness reincarnates are described in detail. Explanatory models of conception and gestation rest first on a moral epistemology (Craig and Adams 2007). The fetus is actually formed by a sense of desire in the wandering consciousness of a previous incarnation. While the five cosmo-physical elements (earth, air, water, fire, and space) that make up the physical elements of a sentient being dissolve at the time of death, the consciousness is directed toward the "womb door" through the law of cause and effect, known as *karma.* According to the *Four Tantras,* the primary causes of conception are the union in a mother's womb of a "psychic individuality in search of a new incarnation with the non-vitiated sperm and menstrual blood of the parents" (Pordié and Hancart Petitiet forthcoming). The *Four Tantras* elaborate on the nature of such cosmic union, and the formation of a physical and sentient person. The development of the fetus is divided into three phases – the fish, tortoise, and pig stage – that roughly map onto the three trimesters with which we are used to conceptualizing pregnancy in biomedicine. These and other texts also enumerate ways to determine – and change – the sex of an unborn child, as well as complications in the duration of pregnancy and the health of both mother and fetus (Sangay 1984; Garrett 2008) (Fig. 4).

These intricate discussions of embryology, pregnancy and childbirth, and even a class of illnesses known as "women's diseases" (*mo nad*) raise questions about the intended audience for this knowledge, its practical applications, and its contemporary salience to maternal and child health. In her new book, Frances Garrett (2008) argues that the detailed textual histories of Tibetan embryology speak to two distinct, if related, ways of knowing: namely, a *medical* universe, concerned

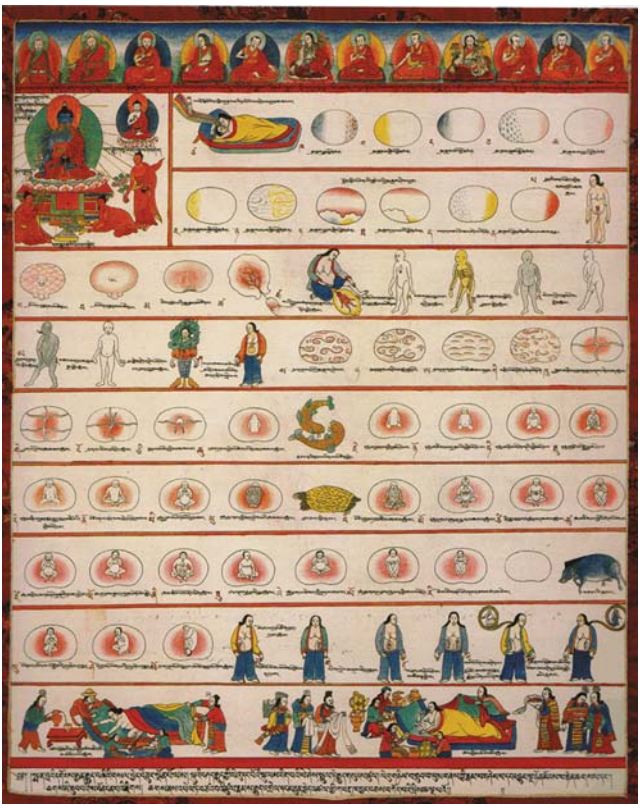

Fig. 4 This painting, the fifth in a series of 80 medical thangkas first produced in the 17th century, depicts Tibetan conceptions of human embryology. Reproduced with permission, *Tibetan Medical Paintings: Illustrations to the Blue Beryl Treatise of Sangye Gyamtso* (2 Volumes). Edited by Yuri Parfionovitch, Gyurme Dorje and Fernand Meyer (London: Serindia Publications, 1992)

with empirical explorations and practical advice about the mechanics of conception and the process of fetal development (albeit often written by erudite monk physicians who knew little about women's health at a ground truth level); and a *moral* universe, in which religious scholars and tantric masters were concerned with articulating and enumerating a Buddhist ethics and a guide to spiritual practice and liberation through the language of embryology. Here, rather than serving as a medical textbook, exegeses on fetal development serve as metaphors for all that can go right (or wrong) by engaging in the contemplative sciences of meditation. This distinction is important to remember. Otherwise, one might struggle to reconcile these detailed medical and religious texts devoted to the subject of pregnancy and childbirth with the variety of cultural practices – from infant welcoming ceremonies to social stigmas associated with childbirth – present in Tibetan communities. And this is not to mention the usual absence of Tibetan medical practitioners (*amchi*) at the site of a birth – particularly if the *amchi* is male, which, in rural areas across the Tibetan

Fig. 5 A Tibetan doctor examining a female patient, Mustang, Nepal. Photo by the author

cultural world, is usually the case. Nor does this presence of information on pregnancy and childbirth in scientific and religious literature do much to address the high rates of mortality and morbidity among Tibetan women and children.

But let us explore in a bit more detail some of the "folk" idioms and cultural practices that define this moment in the lifecycle for many Tibetans. During pregnancy, Tibetans seek blessing from Buddhist teachers to ask that the developing fetus be protected. Medical scriptures include ritual instruction to help end a long, difficult labor (Sangay 1984: 8). Women may consult with *amchi,* who will analyze the health of mother and child through pulse diagnosis, and proscribe both dietary advice and, when needed, medicines made from plant, mineral, and animal *materia medica* (Fig. 5). Indeed, many expectant mothers eat special foods that are said to strengthen women and their developing fetus (Adams et al. 2005a; Pathak forthcoming; Sangay 1984). Women and other family members go on religious pilgrimages and make offerings in preparation for a safe delivery. Indeed, some might go to great lengths to gather up substances that will aid a woman during a difficult labor. Some eat the small fish that swim in Lake Manosarovar in western Tibet, at the base of sacred Mt. Kailash. One of the most pervasive such rituals is the creation of a fish out of butter that is then ritually imbued with *mantra* (Sangay 1984: 8; Pordié and Hancart Petiet forthcoming). Tibetan medical treatises also enumerate specially formulated medicines to help speed and aid delivery (Adams et al. 2005b). Likewise, before a newborn nurses for the first time, he or she often has a small bit of butter mixed with honey, saffron water, and musk water to give the child the power of wise speech and to protect the child from harm by a variety of earth spirits (Sangay 1984: 9).

After birth, families will often ask a respected religious figure to name the child. If an infant gets sick frequently, parents might give the child a new name – that of a blacksmith, for instance, or others whom Tibetans consider to be of low birth – as a way of tricking malevolent forces into leaving the child alone. A mother, spent from delivery, might have her abdomen massaged with oil – a means of quelling the pains of childbirth and helping her uterus contract. When a child is anywhere from a few days to a few weeks old, the new member of the community is honored with elaborate life-welcoming (*bang tsol*) and long life (*tshe dbang*) ceremonies (Adams et al. 2005a:831; Childs 2004: 41; Chopel 1984: 26). At this time, many women offer a first feeding of a mixture of butter and barley flour: the staples of life on the Tibetan Plateau. This act not only grounds the infant in this world, but also ties the child to its home and lineage, endowing this new life with the strength of generations (Adams et al. 2005a). Other texts and oral traditions describe processes by which the umbilical cord should be cut, the placenta handled, and the birth area cleansed. This is also the case with prescriptions for common childhood illnesses such as diarrhea and fever, as well as illnesses whose cause lies with maligned spirits (Sangay 1984). Of course, many of these somewhat idealized practices may not bear out in lived experience. But I have observed many of these practices during my tenure among Tibetan communities, both rural and urban.

Bone Soup and Rickets: Nutritional Prescriptions and Limitations

Given the short growing seasons and high seasonable variability across the Tibetan Plateau and Himalayas, as well the pervasiveness, as one early Tibetologist put it, of a life defined by wresting survival from "fields on the hoof", (Ekvall 1983), dietary intake is relatively limited and meeting micronutrient requirements for healthy development of the fetus and nourishment of expectant mothers can be difficult. Added to this are a variety of restrictions, codified in Tibetan medical theory and played out in folk knowledge, about which foods are desirable or harmful to eat during pregnancy. Foods that are cool in nature are generally preferred over foods that are hot in nature, as well as those that are "spicy" by western gastronomical standards. After birth, a mother is instructed to eat and drink strong, nourishing food such as milk, meat stew, or bone broth. In theory, pregnant women also have greater access to increased caloric intake than at other times in their lives. However, this is somewhat complicated by the cultural taboos around announcing one's pregnancy, as well as structural limitations such as poverty and the price of desired food in the marketplace.

Although the consumption of alcohol (particularly *chang,* barley beer) is common during pregnancy in many Tibetan areas, both *amchi* advice and textual sources warn against imbibing in great quantities. However, in practice, many Tibetan women drink large quantities of *chang* that might place them at greater risk for giving birth to a child with Fetal Alcohol Syndrome (Pathak forthcoming). In addition, many Tibetans routinely drink great quantities of salt butter tea. While viewed as a

beneficial practice in that it helps keep the woman (and developing fetus) warm and strong, and while certainly a source of needed fat and protein, some have argued that this high fat and salt diet may predispose Tibetans to higher than average rates of hypertension. A detailed dietary analysis of pregnant Tibetan women in Dharamsala revealed a diet that was low in calcium, iron, folic acid, and vitamin C intake – all essential nutrients during pregnancy; these combined factors might be one of the reasons for high incidences of hypertension, anemia, weakness, and edema (Wiley 1994; Pathak forthcoming). And yet, at least in the Dharamsala study, women confessed to eating a variety of foods (certain types of meat, eggs, garlic, and some alcoholic drinks) that are traditionally taboo during pregnancy. However, changes in knowledge about what constitutes nutritionally sound prenatal diets – which has occurred throughout the Tibetan cultural world, in part through state and non-governmental health programs – does not necessarily correspond to changes in behavior, for a variety of socioeconomic and cultural reasons (Pathak forthcoming).

Infant feeding practices and child (mal)nutrition among Tibetan communities are also where the cultures of biomedicine and Tibetan culture intersect – and sometimes conflict. According to one study of feeding practices among young Tibetan children living at altitude (Dang et al. 2005), the median duration of breastfeeding was 26 months, and yet most children were introduced to other foods (the ubiquitous butter and barley flour as well as eggs, cow and goat milk, and meat) before they were four months old. According to biomedical "best practices" guidelines for neonatal and infant health, these mixed feeding practices increase a child's risk of health problems, particularly diarrheal diseases. And yet these supplementary feeding practices not only have overtly cultural roots, but can also be manifestations of maternal malnutrition; if the mother is not producing enough milk, or cannot breastfeed regularly due to labor demands, she will begin to supplement foods at an early age. Malnutrition, micronutrient deficiencies, access to affordable vegetables, and rising food costs in some regions, in addition to an indigenous diet that is chronically short of vitamins A, B12, D, folic acid, and iron can lead to anemia, among other health problems; high rates of stunting, wasting, cretinism, and rickets have also been reported in Tibetan areas (Harris et al. 2001, Dang et al. 2004). In addition to these micro-level challenges, deep valleys, raging rivers, permafrost, limited growing seasons, and high mountain passes are the physical and geographic barriers that have contributed to maternal and child health outcomes in Tibetan communities. Although motorable road networks through *tsampa*-eating territory are becoming more pervasive today, many regions remain inaccessible except by foot or horseback. Winter closes in on many settlements, leaving them cut off from health care and other services for months on end.

Conclusion: "Safe" Birth on the Roof of the World

When trying to make sense of the diverse realities presented thus far – clearly and beautifully articulated practices around pregnancy and childbirth, and yet disturbingly high mortality and morbidity rates – it is important to remember that culturally Tibetan peoples live in some of Earth's most harsh and extreme

environments. In several respects, the physical environment of the Tibetan Plateau and the northern Himalayan ranges bear directly on how Tibetans have adapted, in biosocial terms, to create, support, and give meaning to life – including pregnancy and childbirth. Research on the impacts of altitude on pregnancy and birth outcomes show that human populations have found ways to adapt to a range of ecological stresses, including hypoxia, the decreased partial pressure of oxygen that occurs at higher elevations (Wiley 2004: 25).[8] A review of this literature (Yangzom et al. 2008; Niermeyer et al. 1995; Miller et al. 2007; Wiley 2004; Beall 2001) suggests that while Tibetan infants may have better health outcomes than new arrivals to the Tibetan Plateau (such as the children of Han Chinese migrants) the thin air of High Asia does bear on an infant's biology, and perhaps on the challenges to thrive in these environments.

Alongside these realities of place, many cultural differences, fraught political histories (including occupation, state neglect, and exile), and socioeconomic divides further contribute to experiences of pregnancy and childbirth for Tibetans, on both sides of the Himalayan range and across the Plateau. The rise since the 1960s of biomedically-oriented public health care programs across the greater Tibetan Plateau region, as well as family planning campaigns, associated demographic and fertility transitions, and the less tangible yet no less powerful transitions around ideologies of development and modernization – as well as experiences of prolonged exile – also directly impact reproductive health care infrastructure, services, and ideologies (Childs et al. 2005; Childs 2008; Goldstein 1981; Goldstein and Beall 1991; Chertow 2008; Heydon forthcoming; Pathak forthcoming). Furthermore, the increasing shifts toward cash-based economies as well as increasing prices of basic commodities (food, fuel, etc.) in many Tibetan areas bears on what types of recourse Tibetan families have to care for women and children, either in the midst of the drama of a prolonged labor or during the routine of making an evening meal. In the TAR today, for example, 85% of Tibetans live in rural areas. Today, many Tibetans continue to earn a living, at least in part, through subsistence-based farming and herding activities. Yet many contemporary Tibetans from Ladakh to Lhasa, from Derge to Dalhoosie, also labor for cash – as truck drivers, tourist porters and guides, civil servants, teachers, NGO-workers, sex workers, etc. For some individuals, this means jobs that take them away from home communities for extended or episodic periods of time. While these shifts in family patterns do not bear directly on birth outcomes, they do bear on the shifting nature of family in Tibetan communities and, in many instances, to the perpetuation or decline of cultural knowledge and practice around pregnancy and childbirth.

And so, those of us who engage these stories, social histories, and statistics are faced with a series of challenges: How might we work *with* and honor Tibetan cultural practices without viewing "culture" itself as something that is monolithic, predestined or unchanging? How might we reconcile the social and economic assumptions driving conventional, biomedically oriented maternal and child health interventions with the need to be attuned to specific Tibetan realities? How might we acknowledge – and perhaps work to change – the structural inequalities underlying the bare fact that so many Tibetan women and children die in and around the time of birth?

Notes

1. Specifically, the chapter draws on the two years (2002–2004) I spent working as a medical anthropologist and a research coordinator on an NIH/NICHD and Gates Foundation-funded research program focused on maternal and neonatal health outcomes in Lhasa Prefecture, and in my capacity as an advisor to OneHEART, an American non-governmental organization (NGO) whose mission is to "save the lives of Tibetan women and children, one birth at a time" (www.onehearttibet.org). On a personal note, I also became pregnant during my second year of fieldwork in the TAR, and stayed on in Lhasa until the end of my second trimester. Although my own experiences as a pregnant woman in Tibet do not feature in this article, the perspective it afforded me bears on how I have come to understand and articulate the mixture of gratitude and anxiety with which my Tibetan interlocutors have described their own experiences of pregnancy and birth.
2. This is a pseudonym.
3. In his article "Tibetan Superstitions Regarding Childbirth," Norbu Chompel makes note of many different kinds and sources of *theep,* as well as its most common "cure" – namely different ritual ablutions and incense purification rituals (*bsangs*).
4. There are a number of different categories of such nefarious spirits or demons that can harm a child. See Nebesky-Wijkowitz 1956 for a detailed discussion of these different categories of harmful agents. This issue of fear of strangers and spirits is documented in Adams et al. (2005a).
5. Birth Asphyxia, also called intrauterine hypoxia, is a cause of perinatal death. It is a nonspecific symptom of any late toxemia of pregnancy. Before delivery, symptoms may include abnormal fetal heart rate and/or an increased acid level in a baby's blood. At birth, symptoms may include bluish or pale skin color, low heart rate, weak APGAR scores, including gasping and weak breathing (UCSF Children's Hospital, http://www.ucsfhealth.org/childrens/medical_services/critical/asphyxia/conditions/asphyxia/signs.html).
6. Some put this number as high as 85–90%.
7. It is worth noting that this shift in perception around the "safety" of hospital births, away from home births, is a relatively recent phenomenon in many Western countries, dating to the early 1960s (Marland et al. 1997).
8. Specifically, the relationship between birth weight and hypoxia has been explored and debated, with respect to what effect, if any, hypoxic conditions have on delivery of essential nutrients to the fetus and overall fetal development. See Beall (1981), Grahn and Kratchman (1963), Haas (1980), Moore (2003), Yip (1987) for more information.

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Nyob Nruab Hlis: Thirty Days Confinement in Hmong Culture

Pranee Liamputtong

Childbirth, including the period immediately following birth, is an event in which traditions play an important part (Symonds 1991; Liamputtong Rice 2000; Liamputtong 2004, 2007a, b). It is seen as "a dangerous and liminal period when a new mother and her newborn are in an 'in-between' world" (Symonds 1991: 265). The childbirth process is often characterized by unpredictability, tension and danger (Symonds 1991). Hence, there are many rules that women and their families must adhere to in order to avoid negative consequences. In this liminal stage, women are often segregated from the society at large (Turner 1979).

Postpartum beliefs and practices are pervasive. The majority of women in more traditional societies observe them strictly, although we have also seen some changes in more educated and urbanized women (Pillsbury 1978; Laderman 1984, 1987; Chu 1996; Symonds 1996; Townsend and Liamputtong Rice 1996; Hundt et al. 2000; Liamputtong Rice 2000; Whittaker 2000, 2002; Hoban 2002; Liamputtong 2004, 2007a, b; Tsianakas and Liamputtong 2008). There are strict rules which govern what a new mother can or cannot do during the 30 or 40 day period after birth.

Existing empirical findings point to conceptualizing postpartum practices as rites of passage (van Gennep 1960). The postpartum period in many societies is seen as a dangerous, powerful or polluting stage. Following Turner's (1967, 1979) theory, Davis-Floyd (1992: 18) argues that this liminality is the "stage of being betwixt and between, neither here nor there – no longer part of the old and not yet part of the new". The liminal states are often connected with birth and death; the theory offers illuminating patterns of childbirth in many traditional societies (Turner 1979; Davis-Floyd 1992).

In rites of passage, people are separated from ordinary society. This can be seen clearly with women during the postpartum period. In most societies, parturient women are usually separated from normal social activities. A woman who has just given birth is vulnerable to dangers and illnesses because of her physical and

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emotional weakness. She is also capable of causing danger to others because of the perceived polluted nature of childbirth and its blood. The seclusion of rites of passage is, therefore, an attempt to safeguard the woman from danger as well as to protect others around her from her "liminal and polluted state" of health. Within this seclusion period, a new mother is cared for by her close female kin in a separate room or part of the house, where she does not have contact with outsiders. Her diet and behavior are monitored and modified throughout the period. This postpartum practice is seen as beneficial to women's health and wellbeing.

As in other traditional societies, in the Hmong tradition, the first 30 days after birth is seen as the most dangerous period for a new mother. During this period, a woman is seen as vulnerable to all sorts of illnesses and misfortunes. Therefore, a woman must "confine" herself and observe several prescribed treatments and practices.

In this chapter, I will examine the cultural beliefs and practices among Hmong women who have migrated to Australia. I will first provide a brief discussion on beliefs and practices during pregnancy and birth and then discuss important points about the puerperium [the time period after childbirth].

Pregnancy

At one level, Hmong women believe that for conception to occur there must be *lub qe* (the egg) of a woman and *tus qab* (the seed) of a man. The egg and the seed must meet for a baby to be conceived. The meeting of these two components occurs during sexual intercourse. However, conception will occur only when the egg and the seed are of equal strength. If the egg is stronger than the seed, it will eat the seed and there will be no conception. The egg will eventually dissolve and leave the woman's body as menstruation.

At another level, Hmong women believe that conception cannot occur solely due to a woman's egg and a man's seed. Conception can only take place when *Txoov Kab Yeeb*, the spirit parents, give permission to a soul awaiting rebirth to be born in a woman who has the right to be a mother. And this is indicated in a piece of paper (mandate of life) that she brings with her upon her birth. Conception involves more than a biological joining of men and women; it is connected to the spiritual world as are other aspects of the Hmong worldview.

The Hmong do not practice dietary restrictions during pregnancy. However, they are prohibited from taking Western medicines during pregnancy since this can cause miscarriage. Hmong women take cravings seriously. When a mother craves certain foodstuffs, it is the baby who wishes to eat, not the mother. Her craving must be fulfilled lest some physical abnormalities appear on the baby. More importantly, craving needs to be fulfilled so that the baby may grow well.

Traditionally, Hmong women continue their daily routine and work on the farm throughout their pregnancies. However, women do take some precautions to prevent complications. These precautions function largely to prevent miscarriages and stillbirths. Women believe they should not work too hard or carry heavy loads since

these activities may disconnect the placenta and cause miscarriage. Women are warned not to reach up high or take a big jump. More importantly, women are warned not to cross a river, a low valley or wander into uninhabited areas since they may be struck by evil spirits which in turn may make them miscarry.

Although carrying on their daily routines, women were particularly careful about their activities. The most common was to make sure not to fall over. Falling over can distress the baby and may lead to miscarriage. The fall also causes the baby to move into a wrong position. The Hmong believe that in early pregnancy, a baby stays in an upright position until late in the pregnancy when it turns upside down. If a mother falls in early pregnancy, the baby will turn upside down and this is referred to as "the turned liver and kidney" which means that the baby's internal organs will collapse. This will make the baby lose its appetite and it will not grow properly.

Pregnant women are prohibited from entering the home of a new mother during her confinement period (the first 30 days after birth). It is commonly believed that a pregnant woman will cause the cessation of breast milk of the new mother. This is seen as a serious matter since the newborn infant may not receive enough breast milk for his or her growth. Since the Hmong traditionally do not have access to infant formula, this can greatly jeopardise the infant's health. This prohibition extends to her husband as well. Pregnant women and their husbands are extremely cautious about entering a new mother's home in the first 30 days after birth.

The Hmong do not practice the abstinence of sexual intercourse during pregnancy. It is believed that sex during pregnancy does not have any impact on the baby and women continue to have sex throughout. However, sexual intercourse is highly prohibited during the confinement period.

In their new home in Australia, there is no farm to work on and there is no river to cross as in Laos. However, women continue their daily chores throughout their pregnancies and take special care not to lift heavy loads, reach up high or fall over. They strongly believe that these acts could cause complications in pregnancy.

Childbirth

The Hmong see birth as women's business. Only women may be present at the birth. The only man allowed is the woman's husband. For their first birth, all Hmong women are assisted by their mothers-in-law. Some women who had difficult births also receive assistance from an elderly woman who had good experience in childbirth.

Hmong husbands are usually with their wives if they are around at the time of birth. Men who have had several children may assist at a difficult birth by holding the woman's body to help her push, for example. They may also cut the umbilical cord. These men bury the afterbirth and the placenta, wash a newborn infant and prepare the confinement space for their wives. Inexperienced husbands (e.g. first births and young husbands) might only observe the birth from a corner of the room.

With subsequent births, most Hmong women give birth by themselves, particularly if their husbands are not in the village. Most women are embarrassed if their

husbands are too close to them at birth. Unless the labour is difficult, they prefer to give birth alone, although their husbands might be with them in the birth room. Only old women are allowed to check the woman's body and check the vagina when it is absolutely necessary such as when the labour is prolonged and in breech birth. No young women or men are allowed.

Hmong women traditionally give birth in a kneeling position. Women give birth on the floor on which soft cloths or rags are laid. A small stool is placed on the floor and the woman sits on the stool while resting between each contraction. When she feels the urge to push she kneels on the cloth to give birth.

Traditional Hmong birth takes place in the husband's home. It is prohibited for Hmong women to give birth in their natal home since it will weaken their natal clan's spirits (*dab qhuas*). This is believed to be a serious matter in the Hmong culture. To weaken the clan spirit will lead to misfortune and illness. Therefore, all Hmong births must take place outside the women's natal homes.

Confinement Practices

Traditionally, a woman sleeps on a sleeping area made of several layers of straw covered with a piece of soft blanket near a fireplace for three days after birth. The Hmong believe a new mother and newborn infant need warmth. This may prevent some ill health. There are two reasons for using straw as a bed. First, straw will absorb childbirth blood which flows more heavily in the first few days. On the third morning a straw bed will be burnt and the woman can move to her own bed. This, according to the Hmong, helps the Hmong to cope with the scarcity of blankets and sanitary pads. The use of straw also helps the Hmong avoid washing material containing childbirth blood in a river or stream. The Hmong live in high mountainous areas where clean running water is scarce. This practice helps to maintain their clean running water system. Second, a straw bed is near the ground. This avoids exerting excess energy in getting on and off a bed in the first few days.

Although lying near the fire is commonly practiced for three days only, women said they could lie by the fire for the full 30 days if they wished. This is particularly beneficial in winter when women may need fire for warmth because of the scarcity of blankets. The straw bed must be burnt. The Hmong believe that leaving straw containing childbirth blood on the ground will produce a smell attracting animals and insects. This is seen as dangerous to a new mother's health. In addition, leaving straw with childbirth blood around may attract the attention of evil spirits and women may be "struck" by these spirits. These women will have poor health after giving birth.

During a confinement period Hmong women also practice abdominal binding. This is an effort to bring the woman's abdomen back to its normal shape. It also makes the woman feel more comfortable after eating because the abdomen will not expand too much.

Prescribed Food in Confinement

A Hmong woman's first meal post birth is poached egg with white pepper. A chicken's egg is quickly cooked in hot water then mixed with white pepper and a bit of salt for taste. It is believed this will give a woman strength which is lost during the act of giving birth. White pepper contains a "hot" property, so it helps to induce childbirth blood and the leftover placenta in the uterus and makes the womb clean. This also helps in the relief of afterbirth pain.

During the confinement period and after this first meal, Hmong women only consume hot rice and chicken soup cooked with several kinds of green herbs (Fig. 1). After ten days, they are allowed to eat some pork and fish. The Hmong place an emphasis on consuming "hot" food after giving birth. This is to allow the body to rid itself of childbirth blood as much as possible. Retained childbirth blood in the body is seen as a contributing cause of women's ill health after birth.

Fig. 1 One type of herbs used during the confinement period

Rest

Hmong women do receive good assistance and support during confinement so they are able to rest properly. Women mentioned that their husbands and other family members take care of household chores and other work. Hmong women believe that during the confinement period their husbands will take extra care of them. This makes it possible for them to rest properly.

However, this does not mean that all women have the same help during confinement. These women will try not to do too much so they can rest. Anything which is

seen as "too hard" for them, they will not attempt. In general, the women said they are able to carry on "light" work around the house such as cooking and looking after the baby and other children. However, this work should not be undertaken until at least ten days after the birth.

Behavioural and Dietary Precautions

The Hmong believe a woman's body after giving birth is "new", hence it can be damaged easily. The Hmong, therefore, have several restrictions during the confinement period.

Physical Activities and Avoidance of Sex

Hmong women avoid performing "hard" physical activities. These include carrying heavy loads and doing rigorous activity. It is believed that performing heavy activities can lead to a prolapsed uterus known as *hlauv duav* in Hmong. It is interesting that the avoidance of heavy physical activity is closely related to a woman's sexuality. Women mentioned that if they overexerted themselves during the confinement period there was a danger of prolapse of the uterus. This would leave them unable to produce more children.

Apart from heavy physical activity, there are other activities which can cause ill health in a new mother. For example, combing hair during confinement is also prohibited. The act of brushing puts an exertion on the skin and it is seen as a "hard" physical activity. Dusting the floor or blowing into the fireplace while cooking is believed to cause coughing in old age. During the confinement period a new mother should restrict herself to being within the household. Going outside the house exposes the woman to wind which is believed to cause blindness in old age.

The Hmong practice an abstinence of sexual intercourse during the confinement period. It is believed that resuming sex before the end of thirty days may cause *hlao dua*; a prolapsed uterus. Having sexual intercourse too soon after childbirth is considered a potential health problem. Women who do are thought to be beyond the help of even herbal medicines.

Warmth After Birth

The Hmong are particularly cautious about "coldness" during confinement. The Hmong see warmth as essential for a new mother to regain her strength after giving birth. Therefore, coldness must be avoided during the confinement period. Touching cold water is also prohibited in Hmong culture. Cold showers are particularly prohibited. Warm water only is allowed during a confinement period. Women mentioned that if they wished to clean their bodies, they used warm water. Some women

explain they avoided showers in Laos because of the lack of access to hot water. Fortunately, when in Australia the Hmong women are able to take warm showers after birth because of its availability.

Dietary Precautions

The Hmong observe dietary precautions strictly. They adhere to their traditions so that bad health and even death can be avoided. Dietary precautions are taken to protect "a new body" from illness. Certain food is considered potentially fatal. The Hmong refer to this as *fab* and it happens because the food is "wrong" or "poisonous" to the woman's new body. "Cold" food and drink is particularly seen as causing *fab* as it causes the blood to clot. Cold ice and cold water are believed to cause death if a new mother takes them: "If you eat ice it can kill you". The main reason for this is that cold water may congeal the blood and a new body cannot rid itself of "old blood" which is seen as poisonous because of its polluted nature.

Green vegetables and fresh fruits are seen as "cold" and are believed to cause asthma, coughing and swelling in old age. However, women are allowed to consume some boiled vegetables such as green beans twenty days after birth. Certain fruits, vegetables and meat which are seen as "wrong" food, such as banana, eggplants, and an echidna-like animal, are believed to cause *hlauv duav*, a prolapsed uterus.

Other vegetables are also seen as "wrong" since they produce "wind". These include in particular pumpkin, melons and cucumbers. In addition, pumpkin and melons contain high levels of water which is seen as dangerous for a "new body" since the body is in the process of adjusting to its normal stage. Fruits which are seen as "sweet" such as bananas are also believed to have a harmful effect on a new body. Consuming foodstuffs which are "hard" (meaning not tender and difficult to digest) will cause indigestion and heartburn during confinement or more commonly in later life. This is why Hmong women do not consume glutinous rice (known as sticky rice) at all during their confinement period.

Food which has a burnt smell or is burnt when cooked is also seen as dangerous. Grilled food is therefore prohibited during the confinement period, as it can be poisonous or wrong to the body. Interestingly, although Hmong women eat hot rice which has to be cooked until soft, they are not allowed to drink rice milk (water used to wash rice before cooking) or rice porridge. It is believed this will cause any childbirth blood to clot.

Restrictions with Lactating and Pregnant Women

During a confinement period, there are some restrictions with regard to visitors. Pregnant women, lactating mothers and the husbands of pregnant or lactating women are dissuaded from visiting during confinement. Those who enter the house

during the confinement period should not carry bags or wear shoes. This is believed to take away the mother's breast milk. In some situations, there is a way to counteract this. However, many women mentioned that once their breast milk was taken it could not be retrieved.

The "Polluted Body": Women in Confinement

During the confinement, a woman's body is seen as particularly "unclean", "dirty" and "polluted". This belief is reflected in the restrictions placed upon a woman's behaviour. During confinement a new mother is prohibited from entering other people's homes, particularly if they are from a different clan. It is believed that because she is still bleeding her polluted body may weaken the clan spirit (*dab qhuas*) and bring into that household bad health, illness and perhaps even death.

It is strongly believed that a new mother who has committed such acts will not die easily in old age. This is seen as a "bad" death in Hmong culture. Because of this belief, Hmong women restrict themselves to their homes for the whole 30 days after birth. If they do enter another house, they must pay a "penalty" to counteract any misfortune. This penalty is a considerable amount by Hmong standards.

Women are also warned not to go through the front door of their own house. A similar belief as mentioned above exists. A woman's polluted body can weaken her own household spirit, known as *txhij meej* in Hmong. Once *txhij meej* is weakened, it cannot take good care of the family members and their animals.

Any material which comes into contact with childbirth blood during the confinement period must be washed within the house. These include clothes used during birth, and women's clothing used during the bleeding period after birth. Hmong husbands will usually dig a hole in the ground inside the house (Hmong houses in Laos and Thailand are built on dirt ground). All clothes and materials are washed and the "unclean" water is thrown into this hole. When the confinement period finishes and when a woman's bleeding stops the hole will then be covered. These clothes and materials are not allowed to be washed in a stream or river. It is believed that doing so will attract a spirit's attention who could then trace the woman through the smell of her childbirth blood and "strike" her. This would lead to illness and perhaps death in the woman during her confinement. The Hmong are particularly cautious about this.

As mentioned, during confinement women are restricted within their own household boundary. This is also related to the "polluted" body because of childbirth blood. The Hmong believe that the woman's body after birth has its smell which will attract the spirits outside the house. If she goes outside these spirits will strike her.

Hmong Herbal Medicines in Confinement

The Hmong rely heavily on their green herbs during confinement (Moua 1996; Cha 2003; Symonds 2004). Herbs play an important role in maintaining the health of a new mother. There are several common green herbs known as *tshuaj qaib*

(chicken herbal medicine) used in confinement. These herbs serve several purposes. These include relieving aches and pain after birth, producing extra blood after birth, washing out childbirth blood and the remaining placenta from the uterus, replacing energy and strength lost during birth, promoting a good appetite, improving weight lost during birth and enhancing breastmilk.

If a woman does not have any health problems after giving birth, she will only consume chicken soup cooked with several green herbs to help heal her body. However, if the woman has after birth pains, herbal medicine needs to be used to relieve the pain. It is believed that after birth pains occur because the body is not clean from the childbirth blood and remaining placenta in the body. In addition, during confinement a woman may become ill if she does not restrict her diet. When this happens, the Hmong use green herbs to help restore the woman's health.

Apart from using herbal medicines to assist in healing and maintaining the health of a new mother, massage is also employed to help rid the body of any remaining blood and placenta. A medicine woman may perform this. However, an old lady whose task is similar to that of a traditional birth attendant may be asked to perform the massage.

In the case of ill health arising from not keeping the body warm enough, the Hmong will resort to herbal medicines. The herbs are used in combination with hot rocks and this method is known as *tshuaj txhawb*, the steamed herbs method. Herbs are boiled and the rocks are heated up in a fire. Then the rocks are put into the hot herbs which creates hot steam. The mixture is placed near the body of the woman and a blanket is placed on her body. The heat is trapped inside the blanket and is absorbed by her body. This assists the woman to regain heat lost from her body and relieves her from any ill symptoms caused by coldness of the body.

Conclusion

The new mother in Hmong culture is secluded during the postpartum period, but the segregation is behavioural rather than physical. Women are restricted in certain activities, diet and social contacts until the dangerous period is over. This is largely because both mother and baby are seen as being in a "precarious state following the birth" (Fuller and Jordan 1981: 46). This is similar to many other cultures throughout the world where the puerperium is seen as the most vulnerable period a new mother and her newborn endure (Pillsbury 1978; Sich 1981; MacCormack 1982; Cosminsky 1982; Laderman 1987; Jordan 1993; Townsend and Liamputtong Rice 1996; Symonds 1996; Cheung 1997; Liamputtong Rice et al. 1999; Liamputtong 2004, 2007a, b).

In writing about childbirth in rural Korea, Sich (1981) says, "It is considered to be extremely dangerous for the health of a mother, if the rules for post partum care are not observed as they should". The Hmong see things similarly. The Hmong follow many confinement practices to enhance good health. As one woman said, "The Hmong do this [sic] things for good health".

The Hmong place an emphasis on prevention during confinement. This is clearly seen in many discussions with women who speak of being particularly careful about their activities and diet.

> If your blood has clotted then you have to look for medicines to help your body get better. If you are not being careful you have to use some money to buy these medicines to help yourself. If you are not careful this is what will happen to you. . .You have to pay a lot of money for them before you get the medicines. So that is why you have to make sure that after giving birth you have to eat hot food and you have to restrict yourself so that it won't kill you either.

It also appears that Hmong women are restricted somewhat by traditional practices. Women see these practices as related to their reproduction. "Because women are the ones that bear children so they have to be careful of everything".

However, on a closer examination, we see that these practices have functional purposes. This can be seen in the dietary practice among the Hmong. As discussed, Hmong new mothers only consume chicken soup with hot rice for an entire 30 days, although after 10 days they are allowed some fish and pork. In their everyday life, Hmong women do not receive much meat because of its scarcity and the inferiority of their gender. However, after childbirth, which is seen as a depletion of her strength and health, the women are treated more equally. This practice exists to restore the health and wellbeing of a new mother (Pillsbury 1978; Hoban 2002; Liamputtong 2007a, b). It is not detrimental to the woman, although many researchers have argued that dietary restrictions during the puerperium may put new mothers at risk of inadequate nutritional intake (Laderman 1984, 1987; Liamputtong 2007a, b).

Although women are secluded during confinement primarily because they are considered polluted and in a socially dangerous state (Liamputtong 2004), the avoidance of many activities during the confinement period protects the women from poor health. The avoidance of physical activities, for example, gives a new mother both adequate rest before resuming her household duties and protection from infection. Similarly, the avoidance of sexual intercourse during the first 30 days helps restore her physical health to its normal level and prevents possible further illness (Liamputtong 2004, 2007b).

Fuller and Jordan (1981: 46) say, "the period of seclusion has important consequences for the mutual adjustment of mother and child". Relieved of everyday normal activities and household chores, a new mother can give her exclusive attention to her newborn. It is at this time that a mother may learn about her baby. In addition, this seclusion ensures more successful breastfeeding as she does not have to meet the demands of other children and housework. The mother will put her baby on her breast whenever the baby makes a noise. When she emerges from her confinement, breastfeeding has been established, and she has learned about her newborn. The period of separation during the puerperium may assist women to cope with childbirth better, hence enabling them to move into the motherhood state smoothly (Liamputtong 2004, 2007a, b).

An interesting recurrence in the puerperium is the use of heat. Goldsmith (1990: 80) contends that "at this time, as tribal people understand, the mother is cold, weak, and exhausted, her uterus is full of harmful fluids. Heat it is said, shrinks the uterus, restores her strength, and stimulates the production of milk; it is also, of course, comfort to the new mother". The Hmong hold similar theories about heat in confinement. This seems to persist in many cultures throughout the world (e.g. Laderman 1984, 1987; Goldsmith 1990; Liamputtong 2007a, b). From her analysis, Goldsmith (1990) points out that the reason for the use of heat is practical rather than symbolic since the heat assists women to recover quickly from childbirth. She also points out that "evidently the treatment was quite effective, for the tribal mother rarely suffered from hemorrhage, recovered quickly after birth, generally regained her former figure, bled for only a short time, and usually had no problem with her milk supply".

Pillsbury (1978: 17) identifies three main reasons why Chinese women carry out their postpartum rituals. These include "curing the pregnancy-induced imbalance, preventing future illness, and preventing future misfortune to themselves and those with whom they interact". Similarly, Cheung (1997) states that the practices of sitting the month among Chinese women in Scotland is a "social sanction" for the new mother which is used to ensure that she is able to rest and recover. It is also a means to prevent her future illness. Cheung contends, "this practice has a direct bearing upon the psychological well-being of the woman" (p. 64). As Niehof (1988: 243) points out, many of the behavioural and dietary restrictions are based on two principles. "In the first place the mother and baby are thought to be in a state of transition which makes them very vulnerable to evil forces. Secondly, they are not only contaminated, but also contaminating". A new mother should therefore confine herself to the house, and should not participate in normal activities so she can protect her own health as well as the health of those around her. The Hmong, indeed, hold similar perceptions.

It has been suggested that the re-integration of the new mother into society is breaking down in many other ethnic groups in Western societies. However, this has not happened with the Hmong. The Hmong continue to practice confinement for 30 days and they keep to their customs as closely as possible. In Cheung's work (1997) with Chinese women in Scotland, she found that women followed and observed postpartum practices to some extent depending on their needs, environment, family condition, financial state and educational status. In my work, however, all Hmong observe and follow their traditions strictly. Only a few customs have been modified such as lying near the fire. This practice is not feasible in the Australian environment. In addition, they have to leave a place of birth during the first 30 days since they give birth in hospital and must go home (Liamputtong Rice 2000). This suggests Western health professionals "must remain aware and respect the indigenous beliefs and practices linking the events of reproduction and the health status of women" (Pillsbury 1978: 11).

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Pregnancy, Childbirth and Traditional Beliefs and Practices in Chiang Mai, Northern Thailand

Pranee Liamputtong

Childbearing in any society is a biological event, but the birth experience is socially constructed. It takes place within a cultural context and is shaped by the perceptions and practices of that culture (Steinberg 1996; Liamputtong Rice 2000a, b; Liamputtong 2007a, b). Therefore, there are many beliefs and practices relating to the childbearing process that the woman and her family must observe to ensure the health and wellbeing of not only herself but also that of her newborn infant (Steinberg 1996; Jordan 1997; Liamputtong Rice 2000a, b; Liamputtong 2007a, b).

In this chapter, I shall contribute to an understanding of traditional beliefs and practices regarding pregnancy and childbirth among Thai women in Northern Thailand. In particular, I examine women's explanations of precautions during pregnancy and birth and preparations for easy birth and the role of a traditional midwife in Thai birthing care (Fig. 1). I finish the chapter with some interpretations of women's accounts and implications for birthing care.

Precautions During Pregnancy and Birth

Women in Thailand revealed precautions that they must take seriously during pregnancy and birth. These were similar to examples given in previous literature (Laderman 1987; Nichter and Nichter 1996; Townsend and Liamputtong Rice 1996; Naksook and Liamputtong Rice 1999; Liamputtong Rice 2000a; Whittaker 2000; Liamputtong 2007a, b).

Dietary Precautions

Women are advised to be cautious about certain foodstuffs during pregnancy (see also Laderman 1984; Nichter and Nichter 1996; Townsend and Liamputtong Rice

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Fig. 1 Chiang Mai during the Thai new year (Photographed by Pranee Liamputtong)

1996; Naksook and Liamputtong Rice 1999; Liamputtong Rice 2000a; Whittaker 2000; Liamputtong 2007a, b). Pregnant women particularly avoided *khong salaeng* (allergic foodstuff). Thai people take *khong salaeng* seriously as it is believed that the consumption of *khong salaeng* can cause health problems and perhaps death (Liamputtong Rice 1988; Liamputtong 2007b). During pregnancy, *khong salaeng* may have a negative impact on the health and wellbeing of a foetus. Some dietary precautions are to safeguard the foetus. For example, women are warned against the consumption of spicy hot food as the baby may be born hairless. In addition, the consumption of coffee and tea will make the child unintelligent.

Certain foodstuffs are prohibited as these may have effects on the woman's well-being during the postpartum period. Women are told to consume only half of a banana, as eating a whole banana may result in a birth obstruction. Women mentioned that consuming shellfish and northern Thai relishes during pregnancy will prevent the perineum from drying out properly after giving birth. Similarly, consuming Thai eggplants during pregnancy will cause anal pain after giving birth or during a confinement period (*yu duan*) (Liamputtong 2007b).

Behavioural Precautions

Precautions during pregnancy seem to be more behavioural (see also Anuman Rajadhon 1987; Townsend and Liamputtong Rice 1996; Liamputtong Rice 2000a; Whittaker 2000; Liamputtong 2007a, b). During pregnancy, rigorous activities are seen as harmful as these may lead to a miscarriage or stillbirth. These activities include lifting heavy objects in farm work, such as rice bags or water buckets.

Women are warned not to lie on their abdomens, as this may cause a miscarriage, or to drive a car, as this is seen as having an exertion on the foetus which may cause a miscarriage.

Sexual intercourse during pregnancy is also seen as a vigorous activity which may cause a miscarriage. Women and their husbands both fear this. Most women tried to avoid rigorous activities. But for some poor women, this would be difficult or even impossible for them to follow.

Some cultural knowledge is more symbolic. Women mentioned the prohibition of attending a funeral as a strong cultural prohibition during pregnancy. However, for some women, this prohibition could be modified. If it is necessary for one to attend a funeral, she must wear a brooch on the abdomen to counterbalance the ill effect of a funeral on a pregnancy.

During pregnancy, a woman should not finish her meal after other family members. As soon as she has finished her meal, she must leave the eating place. It is believed that she may give birth to a child who will always cry or need to go to a toilet when the mother is having a meal, meaning the mother will have a difficult time bringing the child up. Women did not prepare anything including nappies and clothes for their baby; advance preparation is said to result in the death of the unborn baby. Most rural poor women followed this taboo, as they believed in the older generation's wisdom and knowledge.

Despite following this belief, some women believed that the cultural practice was not really practical. They voiced their concern that if they did not prepare anything in advance, it would create difficulties when the baby arrived. Who would help them with the task? Some women would prepare things for their baby without letting others know. This was particularly so for women who did not have their extended family members living with them or close by to assist them. Wilai, a nurse herself, said that she prepared everything for her baby because if she had to wait until the baby was born, it would be difficult for her as she had to do it herself. Her husband would not know what to do.

The practicality of advance preparation seemed to apply to some women. These women would prepare baby things because they could afford to at a particular time. Payao, a rural woman, said she had to prepare things for her baby as she had some money to purchase them then and there might not be any one to prepare things when the baby was born, as everyone was so busy with their work. Women only incorporate cultural knowledge when it is practical and suitable to their daily living situations.

Preparation for Easy Birth

Pregnant women in northern Thailand were given advice by their mothers or women and men of older generations about the preparation for the birth of their baby. This is also practiced in other cultures (Laderman 1987; MacCormack 1982; Liamputtong Rice 2000a; Liamputtong 2007a, b).

Consumption of Food Stuffs

One common cultural belief and practice which almost all women mentioned was the advice to consume *pak plang*; a vine-liked green vegetable which is believed to make women give birth easily. The vegetable is rather slippery in texture. Being "easy slipped" symbolically indicates having an easy birth. Women believed that the vegetable will make the baby's body slippery, therefore facilitating an easy birth. Some said that they consumed this vegetable throughout their pregnancy but others mentioned that it is only taken toward the end. The vegetable can be prepared in a soup form with chicken meat and chillies, stir-fried with pork mince or in an omelette form.

Consumption of traditional herbal medicine was also mentioned as a way to prepare for an easy birth. The traditional herbal medicine was referred to as *ya tom*. A woman must consume *ya tom* three times per day for three consecutive days. Women can purchase dried herbal medicine and boil it until it reduces to a small cup and drink it as tea. This is believed to make the baby strong, facilitating an easy birth. For some women, however, they did not wish to take herbal medicine, as they believed that it might jeopardize the foetus.

Activities

To facilitate an easy birth, women should keep doing their routines or working throughout pregnancy. Idleness, on the contrary, might make birth difficult. Ongoing activities during pregnancy will make the abdomen "loose" (*tong klon*) to facilitate an easy rotation of the baby's head downward; an easy birth will follow. Ongoing activities help the woman to have enough energy to push during labour. As this cultural practice seems to coincide with their daily life, most women had no difficulty in following the advice.

Another common practice is to gather *pak plang* and *maiyarab* plant (another vine-like green plant) and make them into a loop and boil them with water. A pregnant woman then showers with this herbal water. When she is taking a shower, the loop will be put on her head. This is believed to facilitate an easy birth.

During pregnancy, a woman must not sit on the stairway (steps) of the house, as this may make a baby obstructed at birth. The act of burying anything can also make birth difficult. Srinang, a rural poor woman, told us that due to her ignorance of some cultural knowledge, she buried some fence posts and put in some plants during her pregnancy. She did not realize the import of this activity until the time when the birth of her baby became prolonged. She mentioned it to her husband, and the husband contacted his mother to pull out those posts and a chilli plant in the garden.

During childbirth, there are also many precautions that people must observe. While the birth is taking place, for example, no one in the family should punch a nail on a plank or pitch a fence, as these activities will make the baby stuck. Symbolically, the action of nailing and punching will make the birth difficult.

While the woman is in labour, no nailing and so on is allowed, as these actions will obstruct the labour process. All windows and doors must be opened wide. This signifies an easy birth. When giving birth, the woman must face the east. It is believed that east is the direction of first light and it symbolically means birth and life. On the contrary, it is prohibited to give birth facing the west. In Thai culture, west is associated with death.

If a difficult birth occurs, a person whom the woman has offended must come to help. The person must place his or her foot on the head of the woman and turn the foot around in a circle as a way to signify that he or she has given his or her forgiveness. This will help to ease a difficult birth.

Magic and Montra

To prepare for an easy birth, women must undergo a magical shower which has been blessed with sacred words known as *nam mon* during pregnancy. Traditionally, this must be done from the eighth month to the ninth. It is performed by *mor mon* (a magical healer) or an older man who has knowledge about magical cure and healing.

This ritual should only be performed once during the nine months, but it must be done on a half-moon day (*duan dab, duan peng*). The woman must have this shower in an open space. When the shower is done, the bucket must be turned upside down and the woman must take her sarong downward. She must not turn around to sight the spot where she had a shower and she must put on new set of clothes afterward. It is believed that this will make the magic more effective.

Nam mon sadow kroh (magical water to rid of bad fate) was also mentioned as a traditional practice to facilitate an easy and safe birth. Accordingly, this magical water must be made from water fetched from seven wells. These wells are in the neighbours' houses, but one must be the home of the woman. The water is then blessed with magical power before giving it to a pregnant woman to drink. Any woman who has just given birth must drink *nam mon* as a way to prevent the rising of childbirth blood to the chest. This can suffocate a new mother and death may follow. This is applicable to all women whether they have an easy or a difficult birth.

Montra water (*nam mon*) is also used if there is an obstruction of the placenta. If the placenta is obstructed, the blood will rise up to the women's chest and suffocate her. A magic healer will be summoned to prepare *nam mon* for the woman to drink in this case.

Bucha tien ritual was also mentioned as a way to ease difficult birth or to make sure that the birth will be safe. When a woman is in labour, a family member must bring her clothing, her birth date and time of birth, and a candlestick to a temple. A monk then performs a blessing on these items to bless them for a safe and successful birth. Women also mentioned *pa yan* (magic cloth) as a way to ensure a safe birth. *Pa yan* has to be propitiated by *mor mon* and once it is blessed with magic, it is stitched onto a woman's upper garment during pregnancy and birth.

Mae Jang – Mor Tamyae: A Traditional Midwife

Women talked in great length about how birth was managed in the old days; they use the term *samai korn*. Birth *samai korn* was managed at home. A traditional midwife or an old granny midwife (Muecke 1976: 380), known as *mor tamyae* in Thailand (Jirojwong 1996; Whittaker 2000, 2002), but called *mae jang* in the North, was a caregiver for women (see also Laderman 1987; Lefeber and Voorhoever 1997; Liamputtong Rice 2000a; Paul and Rumsey 2002; Liamputtong 2007a, b). Mae jang attended births in the villages and assisted women with postpartum practices during the first month.

When labour begins, mae jang are summoned to the woman's home. A husband is expected to assist mae jang and the labouring woman. Birth is located mostly in a kitchen where hot water can be prepared. Mattresses are folded up for the woman to prop her back up against when pushing. A husband provides physical support to a labouring woman. He sits behind her with his legs astride her shoulders so that when contractions are intense she holds on to his muscled thighs, which gives her strength to push. A piece of strong wood or bamboo is tied to a post or a wall which the woman can push her feet against when pushing. If there is no husband assisting, a piece of long cloth or rope is hung onto the rafters of the room. This is for the woman to cling to when contractions are intense. The midwife squats at the woman's thighs and waits to catch the baby when it emerges so that the baby will not drop. After the birth, the husband boils the water for the midwife to catch the placenta and clean the body of the new mother and baby. He also cleans up remnants of the birth from the floor and prepares a bed for his wife to observe a postpartum ritual which she must observe for the whole month. He buries the placenta of his newborn infant.

Mae jang may also help a woman to have an easy birth by manipulating her abdomen and uterus during pregnancy. This is known as *klang tong* or *kwag tong* in northern Thai. Essentially, the midwife massages and pushes the uterus upward to make it "loosened up". This will create enough space within the uterus to make the baby move easier in the womb and also make it easy to emerge. It can also ensure that the baby is not squashed and therefore deformed inside the womb. This ritual is done two to three times per week from the sixth month onward.

Several women from rural areas mentioned that they were themselves delivered by mae jang which was some twenty years ago. Some said that their siblings were also born with the assistance of mae jang and this occurred only six years ago. Most rural women were knowledgeable about traditional birth and the role of traditional midwives. But women in Chiang Mai city tend to lack this knowledge. It seems, then, that mae jang in some rural parts of Thailand still exist despite the fact that childbirth in Thailand has been medicalised. Muecke (1976: 377), in her study in the early 1970s, points out that there were two systems of childbirth in Chiang Mai, "the indigenous tradition-honoring and domestic North Thai system of delivery and postnatal care, and the imported medical and institutionalized Western system of obstetrics".

Conclusion

"Childbirth is the most significant of all rites of passage, conferring new status of the parents and changing a nonentity, the unknown fetus in the womb, into an individual with kinship ties, functions and potentialities within a society" (Laderman 1984:549). Although conception occurs within a woman's body, pregnancy is given "meaning by the dialogue between empirical perceptions and a system of symbols that takes place in every culture. They are elaborated on and accompanied by behavioural changes that define the roles of the actors and are intended to protect those who, by virtue of their liminality, are especially vulnerable to harm". In this sense, both mothers and their foetuses/babies are vulnerable entities which need to be protected by rituals.

Childbirth in many societies is seen as dangerous, powerful or polluting (Kitzinger 1978). It is a time when the woman is in "a liminal state, separate from the safe categories of ordinary existence" (Homans 1982: 25; Laderman 1987). Pregnancy is seen as a transitional state when a pregnant woman is not yet a mother but is clearly different from other women. Her behaviour and diet are set apart from those in everyday life and from other members of the society. These behavioural and dietary distinctions function to protect her from danger, giving her the best possible chance to carry her pregnancy to term.

In discussing childbirth in Malay women, Laderman (1987: 124) argues that childbirth is "not only a physiological event", but also "a stage in a rite of passage requiring spiritual prophylaxis and ritual expertise". This is similar to the Thai view of birth. In a normal birth, a woman separates from others by retreating into her bedroom and giving birth with a minimum of assistance. However, in certain circumstances, such as a long and difficult labour, a woman may require not only physical support but also spiritual and ritual aid from traditional healers and there are people around her who can help.

In most traditional societies, as in Thailand, a labouring woman is usually assisted by other women or birth attendants (Goldsmith 1990; Liamputtong 2007a). Goldsmith (1990: 25) points out that in most traditional societies women give birth among those whom they "know well and trust". Most often women give birth with the assistance of their mothers-in-law and their husbands. Even the healers who are called in when complications occur are known by the women. Goldsmith argues that familiarity with the people around her helps a woman have "a positive attitude toward the birth process". Although birth is seen as a woman's affair, it is also related to the family, the community, the society and the supernatural world. This can be clearly seen in the case of a difficult birth with the healing processes involving many people and supernatural beings. These helpers relieve the woman's difficulties in bringing another life into society.

In the old days, traditional midwives played a vital role in pregnancy and birth in Thai society (Anuman Rajadhon 1987; Jirojwong 1996; Whittaker 2000, 2002; Liamputtong 2007a). A traditional midwife does "more than just deliver babies. As part of the local community she is acquainted with the woman and her family

with whom she shares the cultural ideas about how the birth has to be prepared for and performed. She knows the local medicines and rituals which are used before, during and after birth. The work of traditional midwife is adapted and bound to the social and cultural matrix to which she belongs, her beliefs and practices being in accordance with the needs of the local community" (Lefeber and Voorhoever 1997: 1175). Despite this, the number of traditional midwives has been reduced dramatically in Thailand.

Traditional beliefs and practices in Thai culture clearly aim to preserve the life and wellbeing of both the new mother and her child. This is similar to the biomedical model of childbirth. But the two systems may "differ in terms of both the immediate social context in which they act, and of the cultural values that they espouse" (Muecke 1976:377). In Thai culture, pregnancy and birth are treated as part of a childbearing process which is a normal event in a woman's life. Despite this, they can be a critical event which may "imperil her wellbeing" (Laderman 1987: 172), and in some cases may end with the death of the woman and/or her newborn infant. The Thai have established certain beliefs and practices to prevent this and to assist women who have difficulties giving birth.

It appears that traditional childbirth practices have not totally disappeared in northern Thailand, but they have also gradually diminished. Why has this happened? Birth in Thailand has been medicalised; management is controlled by doctors, and nurses and birth occurs in hospital settings (Liamputtong 2007b). The medicalisation of childbirth in Thailand, as in many western societies, makes medical knowledge supersede other kinds of relevant sources of knowledge. Traditions may no longer be relevant, or even worse, must be relinquished. Cultural knowledge has become structurally inferior to Western biomedicine (Lee 1982). In addition, modernization of the society may also contribute to this. This results in the neglect of many traditional practices of pregnancy and birth in hospitals. "The underpinnings of this rapid change have, as part of the processes of 'modernization', 'westernization' and 'urbanization', been discussed in terms of the socio-economic and political development of the country. . . . Such aspects of 'modernization' have made a social context that is often incompatible with the socializing messages and cultural attitudes of the North Thai health care system, and therefore are no doubt contributing to its demise" (Muecke 1976: 380).

Women's social backgrounds influence their traditional beliefs and practices (Lazarus 1994; Zadoroznyj 1999). They are followed by most rural and some urban poor women in Chiang Mai. Yimyam and colleagues (1999) have also observed these differences in their study of breastfeeding among working mothers in northern Thailand. Some traditional practices restrain some women rather than assisting them. For example, cautioning pregnant women not to work too hard less a miscarriage occur, makes it difficult for some poor women as they have to work hard. Differences between women based on their social backgrounds must be taken into account when dealing with Thai women in order to achieve sensitive birthing care.

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Childbirth Experience in the Negev – The Southern Region of Israel

Iris Ohel and Eyal Sheiner

Israel is a small country of great diversity. The winter in the north is cold and snowy, yet 5 hours drive to the south the weather is sunny and dry. It takes an hour to drive from the Mediterranean Sea to the dry deserts near the border with Jordan (Fig. 1). Even more diverse than the weather are the people living in Israel. According to the Statistical Abstract the population of Israel in 2008 was 7.2 million, 75% of whom are Jewish (of different cultural backgrounds), 20% Arabs (Muslims, Christians, Druse and Bedouins) and "others" who are mainly newcomers without religious classification.

In this chapter we will focus on the southern region of Israel, the Negev. We will discuss the childbirth experience in this region as we see it over years of clinical work and research. In this area there is a unique opportunity to compare women of two ethnic groups differing in lifestyle, culture and values associated with parity: Jewish and Bedouin women. The Bedouins have their roots as nomadic tribes in the desert. Today, half of the Bedouin population of the Negev live in semi-sedentary settlements and the rest live in several small towns. National health services in Israel provide perinatal care for all women. The Soroka Medical Centre in Beer-Sheva (the capital city of the Negev) serves as the sole hospital in the region. Soroka is affiliated with the Ben Gurion University of the Negev and is a teaching hospital and the only tertiary health services provider in its area. Almost all births take place in the hospital. In the following review we will describe the birth experience in our region in aspects of pain perception and acceptance of various modes of analgesia, refusal of treatment by parturient, and rates of prenatal care and home birthing.

Pain

Labor is considered to be one of the most intense, painful and significant experiences in life, across cultures. The expression of pain is thought to be different according to ethnicity. As obstetricians practicing in Beer Sheva, we decided to explore this

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Fig. 1 Map of Israel

issue more thoroughly with the notion that understanding the parturient's suffering is essential for proper management of labor and labor pain. We were particularly interested to see whether:

(1) Different ethnicities differ in pain perception and whether these have physiological or biochemical bases.

Fig. 2 A religious Jewish doctor treating a religious Bedouin woman

(2) The mostly Jewish staff may be responsible for an underestimation of pain because of cultural and language barriers.

In a study performed in 1997 at the Soroka Medical Centre, during a six-month period, two aims were defined. The first aim was to compare the childbirth experience of two different ethnic groups living in the Negev: Jewish and Bedouin women. The second aim of the study was to compare the self-reported pain to that reported by the attending obstetrician and midwife, i.e. the exhibited pain (Sheiner et al. 1999). As most of the medical staff was Jewish, this comparison provided an opportunity to investigate the influence of ethnic differences between patient and care provider on perception of pain (Figs. 2 and 3). The pain intensity level was assessed by the parturient and by the physician and the midwife at the same time, in the initial active phase of labor (i.e. 3–4 centimeters dilatation), using the visual analog scale (VAS). The VAS is a pain intensity numerical scale from zero meaning "no pain" to ten meaning "worst possible pain". On the same scale there were five pictures of face expressions: below the zero, a smiling face, and below the ten a crying face. The VAS was selected because it is a simple tool for comparing pain intensity among women with different levels of education, social background and language. Moreover, it can be used quickly with minimal instruction to subjects, a great advantage in the situation of a painful labor.

Although the self-assessments of pain intensity levels at the initial active phase of Jewish and Bedouin parturient were similar, the medical staff perceived that Bedouin women experienced less pain than Jewish women. The trend of the attending staff to underestimate the parturient women's pain was more common in the

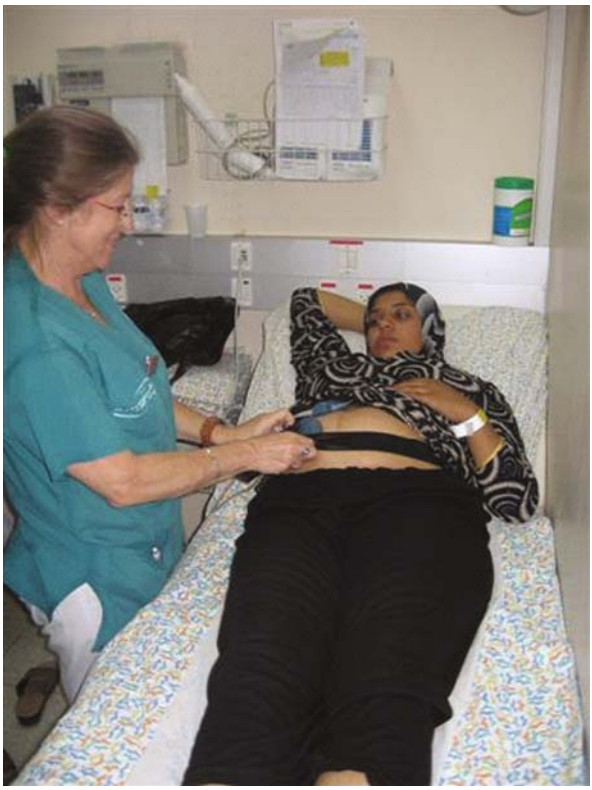

Fig. 3 Reception of delivery room

Bedouin than in the Jewish subjects. Moreover, in 60% of the Jewish patients, assessment of pain reported by the parturient and her care providers were equal, but agreement was observed only in about 30% of the Bedouin parturient. Another finding was that increased parity (the state of having given birth), older maternal age and level of religious observance were all negatively associated with pain intensity scores (Sheiner et al. 1999).

Because of inaccuracies in evaluating the subjective sensation of pain, a few methods were developed in an attempt to more objectively qualify and quantify the degree of labor pain. The Verbal Rating Scale (VRS) is a numerical scale. Patients are asked to verbally rate their level of perceived pain intensity with the zero representing one extreme of "no pain" and the 10 representing the other extreme of "the worst pain possible". Another example is the dolorimeter which is a pressure algorimeter. Using this tool pressure is increased gradually over certain commonly used pressure points called "tender points" over the body. When the patient describes the sensation as painful the amount of pressure is recorded and regarded as the pressure pain threshold for the specific tender point. Using those two tools, our group performed a study that was aimed to define pain threshold over a period of

time. Included were women in full term, low risk pregnancies, who were tested before and during labor and at the early postpartum period (Ohel et al. 2007). Differences in pain threshold among Jewish and Bedouin women were minor, and overall, pain threshold was comparable between the groups. Although the two groups of parturient differed in lifestyle, culture, values and socio-economic status, the self-assessments of pain intensity levels of Jewish and Bedouin parturient in the initial active phase of labor, again, were similar.

Epidural Analgesia

The use of epidural analgesia has increased greatly in the last decade. This mode of pain relief during labor is a tool of vital importance in pain management during labor, and it is highly recommended in our institution. Despite this we have observed a low rate of acceptance of epidural analgesia by our parturient women. Data collected from 25 labor and delivery rooms in Israel by the Israeli Society for Maternal-Fetal Medicine show that during the year 2006 the median rate for epidural analgesia performed was 57.7% for all vaginal deliveries. In our medical center the rate is around 20%. To better understand this apparent discrepancy a study was conducted at our hospital aiming to define the obstetric and sociodemographic factors characterizing parturient women who were offered and who accepted epidural analgesia (Sheiner et al. 2000). In addition, an attempt was performed to assess if the severity of pain, as exhibited by patients and their subjective perception of it, predicts physicians' recommendations and patients' acceptance of intrapartum epidural analgesia. Of the 447 parturient women interviewed, epidural analgesia was offered to 393 patients (87.9%) but it was administered to only 131 (29%). Patients who were offered epidural analgesia were significantly younger (26.5 vs. 32.8) were of Jewish ethnicity (63.4 and 11.1%), and had fewer pregnancies and deliveries (2.7 vs. 7.8 pregnancies, 2.3 vs. 7.1 deliveries). In this group, women had higher levels of education, were more likely to have participated in a childbirth preparation course, tended to define themselves as secular and were more likely to have a significant other present during labor than those who were not offered epidural analgesia.

The severity of pain as assessed by the medical staff, as well as low parity and low maternal age, were statistically significant factors affecting an offer of epidural analgesia. After adjustment for parity and maternal age, ethnicity no longer predicted physicians' tendency to offer epidural analgesia.

Decisions Regarding Termination of Pregnancy

Another aspect of pregnancy care is the prenatal evaluation of the fetus and dilemmas that arise following detection of fetal malformations. Abortion for major congenital malformations is legally obtained in Israel through special hospital based committees. The decision to terminate a pregnancy is stressful emotionally and involves psychological, cultural and religious conflicts. This is demonstrated in the

population of our region with the Israeli Bedouin Arabs. This culture attributes great importance to high fertility; the families are large and there is a high level of inbreeding. In order to understand better the dynamics regarding termination of pregnancy, a study involving nearly two hundred Bedouin women who were diagnosed as having a malformed fetus with major congenital defect was conducted. They were all referred to a third level ultrasound clinic in the Soroka Medical Center during the years 1990–1996 (Sheiner et al. 1998). The majority (72%) of couples were consanguineous and half of them were first-degree cousins. This incidence of inbreeding was higher than that known for the Bedouin population at large, and reflects the high risk of this group for genetic and autosomal recessive disorders. In 125 cases the fetal disorders were diagnosed before the 24th week of pregnancy and they, therefore, had the option to interrupt their pregnancies, as opposed to 63 cases diagnosed in advanced pregnancy beyond 24 weeks gestation. Of the 125 cases, 49 couples decided to terminate the pregnancy and 76 elected to continue it. Factors significantly associated with the decision to terminate the pregnancy were earlier gestational age at diagnosis, previous uncomplicated pregnancies, families with an affected child and the diagnosis of central nervous system malformations. These findings show that in this high-risk traditional population more than half of the couples will not opt for termination of pregnancy mainly because of the advanced stage of pregnancy. The reason for this delay in diagnosis may be partly due to underutilization of prenatal diagnostic services due to cultural reasons.

Lack of Prenatal Care and Refusal of Treatment in Obstetrics

Lack of prenatal care has been defined as less than three prenatal visits at any prenatal care facility. Being a common situation in our region, a previous study had investigated whether it is actually an obstetric hazard (Twizer et al. 2001; Sheiner et al. 2001). The study population consisted of 7,600 Bedouin women lacking prenatal care. They were 21% of the 36,281 singleton deliveries of Bedouin women giving birth in the Soroka University Medical Center in a time period of 7 years (Twizer et al. 2001). The study compared labor and delivery outcomes in women without prenatal care to outcomes in women who had some prenatal care. Mothers in the lack of prenatal care group tended to be in the extremes of their reproductive cycles (<18 years, >35 years) and had more children than those receiving prenatal care. There were more deliveries prior to 32 weeks of gestation in the lack of prenatal care in comparison to the comparison group. The incidence of low birth weight (<2,500 g) in the lack of prenatal care group was higher than in the group of patients with prenatal-care. Women who did not receive adequate prenatal care had statistically significant higher rates of antepartum fetal death, intrapartum fetal and postpartum fetal death. Lack of prenatal care is an independent contributor to perinatal mortality and low birth weight in the traditional Bedouin society.

Home Birth and Accidental Out of Hospital Deliveries

Out of hospital deliveries can be planned or unplanned and attended as compared to unattended out-of-hospital deliveries (Sheiner et al. 2004, 2002; Hagar et al. 2005). In a study performed in our institution the attendance of medical personnel in accidental out-of-hospital deliveries did not improve outcome (Sheiner et al. 2004). Another study determined maternal characteristics and perinatal outcomes of unattended out-of-hospital deliveries. A population-based study including all singleton deliveries between 1988 and 1999 was conducted (Sheiner et al. 2002). Maternal characteristics and pregnancy outcomes of accidental out-of-hospital births were compared with those of women who delivered in the hospital. The incidence of unattended, out-of-hospital deliveries was 2%. Multiparity [having many children], Bedouin ethnicity and lack of prenatal care were independently associated with out-of-hospital deliveries. Parturient women who delivered out of hospital had significantly higher rates of perinatal mortality.

Cultural and Traditional Aspects of Childbirth in Israel

The place of the midwife during labor and delivery is of enormous importance. Women expect support and encouragement during labor from a qualified midwife. The midwives give spiritual support in addition to technical issues. During the 20th century, there was a change from home delivery to giving birth in hospital and maternal wards. This happened at the same time as there were advances in medicine and a reduction in maternal and fetal mortality. New technologies of pain relief were introduced in those facilities. Although highly qualified midwives in Israel attend home deliveries, they do not have the tools for emergent interventions or resuscitation, if the need arises. Nevertheless, the trend towards giving birth in hospitals carries its price. Some caregivers pay less attention to emotional support and accordingly the couple's emotions and sense of control are neglected. There is a demand inside the delivery room, to let the parturient women choose who will accompany her during labor. At times, a demand to keep out the medical staff during labor if possible is rising. In low risk pregnancies women can ask for expectant management of labor and the medical staff will respect this request. This means that active management of labor, which is the norm in most university hospitals, and includes amniotomy[1] at the beginning of the active phase of labor, giving intravenous oxytocin to fasten and organize uterine contractions, etc. is withheld, allowing labor to take its course without interventions.

There are many myths and beliefs regarding labor pain. Genesis 3:16 is the passage usually quoted by those who believe women have been cursed to give birth in pain. After Eve was beguiled by the serpent and ate the forbidden fruit of knowledge, God said "I will greatly multiply your pain in childbearing; in pain (in sorrow thou shalt) you shall bring forth children". This is one of the most known sentences in the Torah and it is impressed deeply in Jewish culture. We interpret biblical passages

to explain human phenomena. “Sorrow” is interpreted as “pain” but today pain during labor is not inevitable. Even today women that give birth quietly and easily are said, mostly in religious communities, to be saintly, and this relies on the belief that the “sorrow” or “pain” is an ancient punishment, from the days of Eve (Klein et al. 1998).

Conclusion

We are fortunate to practice obstetrics in a highly diverse cultural population. Our impression was that the cultural background of our parturient women influences their behavior and management during pregnancy and labor, and has far reaching effects on perinatal outcome. In our series of studies focusing on cultural differences in obstetrics we have found in the Bedouin population that a high incidence of underutilization of prenatal care services is a marker of high-risk pregnancy. Such lack of prenatal care in our Bedouin population is associated with a higher rate of poor fetal growth and even perinatal death. The higher rate of consanguineous marriage in this population serves as a factor which directly influenced the rate of fetal maldevelopment and the need for termination of pregnancy. A most important aspect of labor, labor pain management, is also influenced by the culture of the parturient women and by cultural differences between caregivers and the parturient. Pain threshold before and during labor are similar in both Bedouin and Jewish parturient women. Nevertheless, the perception of pain as observed by our caregivers who were mostly Jewish was underestimated particularly in the Bedouin women. This aspect is not fully understood and warrants further studies, although it is already reflecting in our daily clinical practice.

Note

1. Artificial rupture of the amniotic sac surrounding the baby.

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Childbirth and Maternal Mortality in Morocco: The Role of Midwives

Marie Hatem, Fatima Temmar, and Bilkis Vissandjée

> *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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Childbirth in Zimbabwe

Thubelihle Mathole and Simukai Shamu

Maternal Healthcare in Zimbabwe

The health care system in Zimbabwe is characterised as pluralistic, because of the co-existence and concurrent use of traditional and biomedical practitioners. The traditional healers, including Traditional Birth Attendants (TBAs), continue to play an important role in the provision of health care in Zimbabwe (Mukumbura 2000). They are often used for conditions such as infertility (Mutambirwa 1989) and mental health, as well as those diseases believed to be incurable through biomedicine (Nyazema et al. 1992). Of late, however, due to the high exodus of staff, high hospital costs and shortage of essential drugs, many more people are forced to seek traditional care (Chimhete 2003).

TBAs are recognised by the government and they are widely used by rural women (Wintergreen 1998). The commonly accepted definition of a TBA is that she is a person who assists women during pregnancy and delivery (Hansson, 1996). Traditional birth attendants often have little or no formal education and learn what they know about birth either from other TBAs and/or by attending to their neighbours or relatives during pregnancy and birth. They attend to women at their homes and often learn their skills from other TBAs in the family or neighbourhood. TBAs are popular with women because their service is more personalised, and they respect the customs and culture of the women they help to deliver.

The most common sources of biomedical care for pregnancy and childbirth are government-supported health centres and missionary owned health institutions. Both antenatal care and delivery services are provided for free at local health centres but the women are supposed to pay for the higher level of care at the district hospitals. Women are expected to report to the nearest rural health centre early in their pregnancies, preferably before the 12th week of gestation. Those found to have risk factors are referred to the district hospital. Larger health facilities have established a waiting shelter so that women who live long distances away and are likely to

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have complications or risk factors can await labour from the 37th week at the shelter (Nhindiri et al. 1996). Women using the shelters provide their personal needs including food.

Despite the availability of service and knowledge of the benefits of an early visit, many women make their first visit late in pregnancy and may attend an antenatal clinic only once during an entire pregnancy (Mathole et al. 2004). Moreover while more than 90% of pregnant women were reported to attend antenatal clinics, many deliveries take place outside the formal health care system (Nhindiri et al. 1996). A maternal mortality survey in 2002 revealed that more than 30% of women in rural Zimbabwe delivered at home (MOHCW 1997).

HIV and AIDS and Maternal Care

The human immunodeficiency virus (HIV) presents challenges to the effective delivery of health services. In many hospitals in Zimbabwe most of the beds are occupied by patients with AIDS-related diseases. AIDS is currently the most common cause of death for young adults (MOHCW 2000). The AIDS prevalence is currently estimated at 15% and about 20% of pregnant women are believed to be HIV positive (ZDHS 2007). Mother to child transmission (MTCT) is a major factor affecting the provision of maternal health (Munjanja 2001). Ideally anti-retroviral drugs in pregnancy or after the birth should prevent the transmission from mother to child and prolong the life of the mother. In Zimbabwe, as in many developing countries, women however have no access to such drugs for continued use beyond pregnancy and the immediate postnatal period. The focus is therefore on the baby rather than the mother. It is in such contexts where medicines are not available when needed that makes AIDS clearly a disease of poverty (Farmer 1995).

Effects of the Economic Collapse

After gaining independence from Great Britain in 1980, Zimbabwe formulated the Growth with Equity (1981) policy that enhanced the development of once left behind rural health centres which had been disadvantaged by the colonial regime. The Ministry of Health embarked on policies and programmes to increase the coverage of modern (biomedical) antenatal care services. By 2006, at least 68.5% of the births were attended by skilled health workers (i.e. doctors, nurses, midwives); this was higher compared to other countries in the region. Antenatal clinic attendance among pregnant women also increased in the late 1990s (Munjanja et al. 2002), and maternal mortality declined from 578 per 100,000 in 1999 to 555 per 100,000 in 2006 (ZDHS 2007). This post independence gain has however been reversed by the economic crisis Zimbabwe has been experiencing in the last 5 years. A study conducted by Mushonga (2007) gives a snapshot of the problems facing many hospitals in the country particularly in the rural areas as far as facility deliveries are concerned. In a recent case study of six rural health centres, only one had a working telephone

line and all had no radio communication systems to summon an ambulance in case of an emergency. This cripples the operation of the national referral system. Erratic electric power supply made it hard to sterilise the delivery packs. The unavailability of fuel in the country also means that both public and other private transport systems cannot be used. Only three facilities had piped water. Half the facilities had no latex gloves and patients were requested to bring their own gloves. Only one institution had cotton wool in stock. The suture material in five of the six centres was not the recommended type. Although delivery packs were available they were inadequate giving problems of sterilisation when power was very erratic. One can argue that the problems currently facing health facilities, coupled with low worker morale in the country evidenced by high turnover, poses a threat to the safety and success of deliveries in these institutions.

A study conducted by Feresu with Nyandoro and Mumbwanda (2003) noted that there were a total of 72% deliveries in health facilities by 1999. There has however been noticeable decline of institutional births in the last 10 years. A more recent study showed 24.2% non-institutional countrywide in 2002, 4% lower than in 1999. Although the national figure does not show a very high percentage of non-institutional deliveries, the situation in the rural provinces is worse. For example, Mashonaland Central province recorded 33.2% during the same period. According to the Provincial Medical Directorate Mashonaland Central Province (2004), Chiweshe communal area in Mazowe district recorded a total of 61.4% home deliveries. In the rural districts, 74% were assisted by traditional midwives and 26% delivered alone or with the help of the village elders. Despite the adoption of the primary health care approach, the proportion of women who deliver under the care of a qualified midwife has remained low.

The land reform programme also displaced many women from these health facilities and resettled them to areas in which they have to walk for more than 15 km to get to a health facility or to reach a connecting road to the nearest facility. There have not been any programmes to build health facilities, or to train or deploy health workers in these new areas. The crumbling of the health services in the country in the past 10 years has again put women of reproductive age at higher risk since those who remained in their communal lands still have to face these rural health centres which are inadequately equipped, and short-staffed. The staff that remains has little experience.

Although maternity fees are very low in some hospitals or in situations where maternity services are provided free of charge, the associated costs such as those incurred by an expecting mother in the waiting homes (e.g., transport, drugs, providing her own food and toiletries, etc.) are beyond the reach of many women. In an economy that has a soaring inflation rate of over 100,580%, as of January 2008, women have the smallest access to the means of production. Most of them are not working or working in informal low-paying businesses, and their lives and those of the babies they carry are at high risk. This explains why many women in Zimbabwe give birth at home. The decision to book their pregnancies with the health centres, a choice that may be lifesaving if complications arise, is hampered by economic reasons.

This situation also seems to have been exacerbated by the high exodus of health care workers to other countries. A total of 2,297 health professionals (77 doctors and 1,920 nurses) were reported to have left the country by the end of 2002 (Chinowaita 2002). Those who are left behind are overworked and stressed. Staff in the rural areas migrate to the urban centres to fill the vacant posts left by those leaving the country, leaving the rural areas the hardest hit. The capacity to manage complications during delivery at rural district hospitals has been significantly compromised.

Compounded by this problem is the fact that most women have to walk to the clinic about 5–8 km from home, with others more than ten kilometres (ZDHS 2004). Shortage of reliable transport services in the rural areas means that the woman who is only hours or minutes from delivering the baby would have to struggle to get to the health centre. An animal-drawn cart has increasingly become the mode of transport for women about to give birth in the countryside. The uneven terrain and bad roads give an expecting mother a rough trip to the clinic. It is now common for women to give birth before they reach the health centre. There are also cases when, upon arrival at the clinic which operates an 8 hour working day, nurses would not wake up during the night to assist their clients.

Women's Perspectives and Expectations

Women do not perceive risks in the same way as the biomedical-trained health workers do. Studies show that those women identified by biomedical practitioners as at high risk of complications do not follow the strict guidelines prescribed (Van-den-Heuvel et al. 1999; Glei et al. 2003). Therefore, it may mean that the choice of care taken by a pregnant woman depends more on the perception of risk than the medical definition of risk. Thus it is plausible, as highlighted by Sikosana, that women attending a biomedical method of care may be satisfied by the service even though it will be suboptimal from a medical point of view (Sikosana 1994).

The patient-provider interaction has been shown to influence the utilization of health care services. The women's previous experiences of institutional delivery determine future use of maternity health care services. Women in Zimbabwe prefer supportive and caring attitudes from service providers and a successful outcome of labour and delivery. Women will avoid health centres with health professionals who are rude, use abusive language and reprimand them even when it is not necessary. Caregivers' attitudes towards their clients are therefore a critical element of care as they determine the acceptability and use of services by expecting women.

Decision Making Power

Davis-Floyd (1997) outlines the importance of decision-making power and its influence on childbirth practices. She coins the term "authoritative knowledge" which she defines as the knowledge upon which options or decisions are made regarding childbirth practices. She argues that, "Biomedical care tends to objectify the patient,

mechanize the body and exalts the caregiver over the patient and thus attributes authoritative knowledge to the practitioner". Women have been made to believe that biomedical care is the best. This effect of authoritative knowledge may explain the continued high biomedical antenatal rates even though the services offered are of suboptimal quality.

The high prevalence of male dominance in influencing the method of antenatal care used by their spouses is still common in Zimbabwe. Married women cannot make decisions to go to the hospital on their own. Men as husbands or fathers are also involved; women have to get permission from them. One study showed that 41.8% of the women decided when to start antenatal care compared to 58.8% who had the decision made by their husbands (Kambarami et al. 1999). In case of complications this bureaucracy is dangerous because it poses a threat to the health and lives of mothers and their babies.

Again with the increase in HIV/AIDS stigma and discrimination, it has also emerged that husbands' reluctance and refusal to have their women booked with health centres is caused by their fear that they will be tested for HIV, a test that most men refuse. This further puts women at risk. Due to the fact that men have access and control of the family income, women fail to book with the relevant maternity centres up until the men support the decision. Although a lot of work has been done to encourage men in Zimbabwe through for instance changing the focus in PMTCT programmes from the mother (Mother-to-Child Transmission) to both parents (Parent-to-Child Transmission), a significant number of men still do not participate in antenatal and postnatal care.

Culture and Childbirth

Childbirth in Zimbabwe is believed to link the body, mind and spirit. It links the physical, psychological, social and spiritual components of human beings. Because childbirth is both a social and physiological process it reflects the social organisation, beliefs and practices of the society in which the birth takes place. A study done by Hansson (1990), determining the connection between childbirth and religious beliefs in a rural district, showed that some of the traditional practices in childbirth were still common.

The patrilineal society of Zimbabwe favours giving birth to a baby boy. A baby boy is taken as an ability to extend the clan name. Women are usually honoured by their husbands and respected by the clan if they give birth to a baby boy, especially if this is the first born.

Higher order babies are more likely to be delivered at home. Sixty-eight percent of the young mothers, under 20 years old, were more likely to deliver in health institutions. Fifty-six percent of mothers with six or more children had their last birth at home compared to 21% of mothers with one child (ZDHS 2007). Young women giving birth for the first time associate the first birth with complications arising from inexperience among other reasons. Although the last birth is also biomedically associated with increased risk, women are reluctant to deliver in facilities as they count

on the experience gained in giving birth. A lot of rituals were also associated with the first birth, as this was symbolic in marking the transfer from girlhood to motherhood. Successive births were also valued as they marked the change to another level of adulthood. The women are taught their new responsibilities at every level of their life cycle. This is the responsibility of the aunts and TBAs in their role as community teachers and counsellors.

One of the customary practices that is still common in Zimbabwe is *kusungira*. This is a traditional system that means the married woman is taken back to her maternal home for childbirth rituals in the third trimester of her first pregnancy and returned to her husband after the birth. Rituals are performed when she leaves the husband's home and when she returns. The major purpose for *kusungira* is that the woman needs to be with her mother and get assistance and education on antenatal and postnatal care and the upbringing of the first child. It is also done to avoid sexual intercourse during this advanced stage of pregnancy. The wife's mother and a TBA who is selected by the mother have the responsibility to look after the pregnant woman until delivery. It is during this time that the expecting mother receives traditional herbs from the TBA and her mother to widen the birth canal (*mushonga wemasuwo*). Failure to have a normal vaginal delivery is blamed on the wife's clan. To illustrate this point further, the local tradition indicates that peripartum complications are ascribed to immoral and amoral behaviour of the women and not to biological concepts (Mutambirwa 1985). Labour complications resulting from failure to push the baby out meant that the woman performed some immoral activities in the homestead in which she is married. She was then supposed to quickly apologise to the in-laws for her to manage the delivery. Such traditional interpretations of childbirth complications usually led to an increase in maternal and infant mortality.

In most rural areas a traditional birth attendant is chosen to attend the woman during that time, up to the time she gives birth, giving continuous support and encouragement. After delivery, women are confined to their specific room away from everybody else and in the rural areas they use a room with a fire to keep the woman and the mother warm. During the confinement period women also practice abdominal binding. This is an effort to bring the woman's abdomen back to its normal shape. Some even use a damp warm towel which they wrap around the abdomen. Apart from massage, boiled water is also employed to help rid the body of any remaining blood and placenta. The delivered woman steams using either holy water or herbs boiled in water.

This isolation of the newly delivered mother and child from most others, including the father, is done to protect them from infection. They are also discouraged from visiting others. A responsible female relative and a TBA care for them until the baby is 1–3 months of age. Women usually get a lot of assistance from relatives, friends and neighbours at this time to enable them to rest properly. The relatives take care of the household chores and all the other work.

Any material which comes into contact with childbirth blood during birth is washed within the house. These included clothes used during the birth and women's clothing used during the bleeding period after birth. The husband used to dig a hole and all the unclean water used for washing was thrown inside. When the

confinement period was over and when a woman's bleeding had stopped, the hole was then covered. These days that waste is thrown in toilets.

Another important function that was of importance to the family was the disposal of the placenta. Traditionally, the placenta was buried in the kitchen as a way to make the children always remember their roots and come back home. The placenta is also turned inside out before it is disposed of as a way of ensuring that a woman gets a baby of a different sex next time (Mathole et al. 2005)

Before the wife returns to her husband's home with the new baby, the maternal mother and the TBA who helped in the delivery have to "immunise" the baby using traditional herbs. The baby is usually given drugs to prevent against problems associated with *nhova* (dehydration), to cure *ruzoka,* stomach aches and to prepare the baby for the new environment. It is interesting to note that the *kusungira* concept is still widely prevalent in Zimbabwe both in rural and urban settings. Although maternity booking and health centre based antenatal and postnatal care have in some way, through the medicalisation process, replaced the *kusungira* concept, the two complement each other. In this case, the rituals are done but the wife goes back to live with her husband and may visit her mother if need arise. In some communities medicalisation has successfully removed the *kusungira* concept again shifting prenatal and postnatal responsibility from the wife's family to the husband's family and the hospital.

Modern developments have considerably altered these patterns, and many women now go to hospital to give birth. Just as it has been observed in Botswana, in Zimbabwe a woman in labour is accompanied to the hospital by her mother who, because of hospital policies that do not allow companions, is asked to wait outside until after the delivery. The labouring woman may be left alone because of the shortage of nurses, while her mother is anxiously waiting outside. The woman might find the hospital environment strange because most of them go to hospital for the first time when they are in labour. They meet the health care providers for the first time and some may not be familiar with the infrastructure at the hospital. In addition during their time in the hospital they get into contact with a number of health workers and do not have the chance to get used to any single staff. The caregiver who admits them to the hospital is not necessarily the one who is going to be caring for them throughout their labour and birth (Madi et al. 1999).

Such rules in the hospital create dependence and domination and the depersonalisation of women by hospital staff, a relationship that is profoundly different when patients deliver in the comfort of their homes. It leaves the woman under the total control of the hospital. Women who received care at home experienced less anxiety than those under the care of the hospital (Kirk 1998). This shows that home deliveries help to instill a high sense of self-esteem rather than an uncertainty in delivering. In most hospitals in Zimbabwe, women receive less care but routine observations, the opposite of what they get in the comfort of their homes. Whilst many people are obsessed about hospital care, it is different in reality. With the brain drain and understaffing of the hospitals in the country, this leaves a lot to be desired. It can be concluded therefore that the home can be better than the hospital for women who are not biomedically at risk and have caring families. It would be better to live with

the family and routinely visit the hospital for observations than living in the hospital with less and poorer care. An appreciation of cultural beliefs and expectations of women and their social circumstances is equally essential for sensitive and culturally appropriate birthing care. Health policy makers and health care practitioners need to be aware of these factors because they determine the acceptance and sustained use of health services.

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Childbirth in Nigeria

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Nigeria is a huge African country, home to 20% of Africans, with a population of about 140 million people (National Population Commission 2006). It also has a high fertility rate, although the 2003 Nigerian Demographic and Health Survey (NDHS 2001) shows a slight decline in the total fertility rate. Fertility also varies by region. In the South women have 4.1 children on average, compared to 7.0 children in the Northeast and 6.7 in the Northwest (NDHS 2003). In spite of this high premium given to childbirth in Nigeria, it is still a challenge for the majority of our women, with an unacceptably high maternal and neonatal mortality rate. The maternal mortality rate is estimated to be 800/100,000 live births (NDHS 2001). While this is lower than the sub-Saharan Africa average of 910/100,000, wide variation exists across the geopolitical zones. The North East Zone has almost ten times the maternal mortality rate than the South West Zone. There is also marked urban-rural variation 351/100,000 (urban) to 828/100,000 (rural) in maternal mortality rate (NDHS 2001), An estimated 52,900 Nigerian women die annually from pregnancy-related complications. A woman's chance of dying from pregnancy and childbirth in Nigeria is 1 in 18 (Women of our World 2005).The tragedy of maternal death is multiplied by the consequences to the offspring; the chance of death for children whose mother has died while they were under the age of 5 is as high as 50% in developing countries (Tinker and Koblinsky 2002).

The neonatal mortality rate (deaths of infants within the first 28 days of life) is 48 per 1000 live births (NDHS 2003); most newborn deaths in Nigeria occur within the first week of life.

Causes of Maternal Death During Childbirth

An individual maternal death is seldom due to one direct cause. Usually there are two or more causes, so that allocation of cause of death becomes problematic. The main causes of maternal mortality in Nigeria are: haemorrhage

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(23%), infection (17%), unsafe abortion (11%), obstructed labour (11%), and toxaemia/eclampsia/hypertension (11%). Malaria (11%), anaemia (11%) and others, including HIV/AIDS, contribute to about 5% of maternal deaths. It is also estimated that for every maternal death, at least 30 women suffer short to long-term disabilities such as vesico-vaginal fistula (VVF). VVF is a condition that arises from prolonged labour and complicated childbirth resulting in continuous dribbling of urine.

Process of Childbirth in Nigeria

Care in Pregnancy

Approximately half of our women attend antenatal care (ANC) at least once during their pregnancy (NDHS 2003). Only half of those attend at least 4 times, which administrators agree is the minimum frequency for good care. The other half attends the clinic once in order to obtain a ticket (maternity card) that can be used in the eventuality of having a complication during delivery and therefore the need to go to the hospital.

Two-thirds of the women present for the first antenatal clinic during their second trimester of pregnancy. Government Primary Health Centres are the main sources of ANC utilized by 51.4% of women (Galadanci et al. 2007). Other sources are government general hospitals and private clinics. In addition to attendance at antenatal clinics, the quality of care received in the clinics is another major determinant of pregnancy outcome. Only a third of women that attended antenatal clinics receive quality antenatal care (Galadanci et al. 2007). As reported in the 2003 NDHS, only 58% of pregnant women received iron supplements and 39% received drugs to prevent malaria as part of their antenatal care. The low quality of care offered in our antenatal clinics contributes to the low utilization of the service.

Care During Delivery

The WHO estimates that 60% of births in the developing world still occur outside a health facility, with 47% either unassisted or assisted only by Traditional Birth Attendants (TBA) (WHO 1997). Galadanci et al. (2007) reported that 85.3% women deliver at home in Northern Nigeria, whilst health facilities took 14.1% of deliveries with 0.6% of deliveries occurring in spiritual homes, farms, vehicles and other locations. This figure is higher than the national figure of 58% of women delivering at home (NDHS 2003). This is also true of other African countries, as in South Africa where women prefer to stay away from formal care structures for their deliveries (Fonn et al. 1998).

Attendant at Delivery

Childbirth is considered a natural process that does not need interference, so it can be conducted in the privacy of the parturient home. In fact the delivery attendant

is only called to cut the cord after delivery, clean the baby and bury the placenta in communities where that is practiced. The process of the labour is not interfered with, nor is any complication anticipated. Therefore when any complication occurs such as obstructed labour, eclampsia or bleeding, time is wasted before care is sorted.

As most deliveries take place outside the health system, most will be attended by unskilled personnel. Traditional birth attendants (TBA), trained or not, are excluded from the category of skilled health-care workers. Skilled personnel in Northern Nigeria attend only 19.5% of deliveries with 80.5% of the deliveries attended by personnel with no verifiable training in sanitary birthing techniques (Galadanci et al. 2007). These include TBAs and Village Health Workers (VHW), parents, in-laws, neighbours and other relations who happened by at the critical moment.

TBAs were valuable members of the birthing process long before the advent of modern medicine and its institutions. They still play a major role in childbirth in Nigeria, especially in rural areas, where access to modern medicine is far away or the cost is prohibitive for most people. This is unfortunate, given that greater use of services of a skilled attendant at birth is considered a key step in reducing the half million maternal deaths in developing countries each year (Nzama and Hofoney 2005).

Care After Childbirth

One of the least utilised maternity care services is postnatal care with less than a fifth of women returning to the clinic after childbirth for postnatal check-ups (Galadanci et al. 2007). This needs to be addressed as more than 60% of maternal deaths occur in the postnatal period (Fortney et al. 1996), and a survey of women delivering in rural homes identified a 43% rate of postpartum morbidity (Bang et al. 2004).

Traditional Home Delivery

Traditional Birth Attendants are women whose ages range from 45 to 70 years. They believe in traditional or local medicine. They supervise and attend pregnant women at their homes before, during and after labour. In multigravidas (those with more than one delivery) the TBAs are usually informed when the pregnancy reaches 9 months. However in cases of primigravidas (women with their first pregnancy), the TBAs are informed once the relatives notice the pregnancy. This is because certain local herbs and advice are usually given to such women by the TBAs. Some of the herbs are believed to clear off mucous discharge (show) towards the end of the pregnancy. There are two categories of TBAs – trained and untrained.

Process of Delivery by Untrained TBA

At the onset of labour, the TBA will be called and a side or corner of a room cleaned and prepared for the woman in labour. She is then given a stool to kneel on, because of the belief that a woman lying on her back with her face upwards, will definitely

give up the spirits. She will remain in this position until after the delivery of the placenta. By her side are usually containers with two or more different types of traditional medicines that she will take at each contraction.

The second stage of labour is only predicted when the woman in labour starts pushing, as no vaginal examination is done to assess the progress of labour. At this stage the TBA starts preparing the hot water to be used for bathing after the delivery. Half a drum of water containing different types of medicinal sticks is put to boil. The woman is instructed to continue pushing with all her strength until the baby is delivered.

Once the baby is delivered, the TBA cuts the cord with a special knife mainly used for that purpose, and then presses the cord between her fingers to control bleeding. The baby is then wrapped in a clean cloth and kept aside. The placenta is expected to be expelled naturally on its own. The TBA then assists the woman in bathing using the boiled water and bunches of leaves that are specifically provided for that purpose. Finally the placenta is washed seven times and wrapped in a clean material and buried.

In a situation where the placenta does not expel naturally, the TBA will vigorously shake the woman's abdomen or induce coughing by sprinkling red pepper on burning charcoal. These procedures aid the expulsion of the placenta. However, when all efforts have failed, the woman is taken to the hospital.

If delivery has been successful, the TBA washes all the soiled linens. She also cleans and dresses the baby using a traditional black soap. Before the nursing mother comes out of the toilet, a traditional pap made of potassium with spices is made ready for her, which is believed to aid in the production of breast milk.

Trained Traditional Birth Attendants

Some TBAs have been able to attend one form of training for providing safe motherhood. In Nigeria, there is training on identifying danger signs in a pregnant woman or woman in labour, how to treat minor elements at home, nutritional counselling, importance of personal hygiene, the use of universal precaution materials, referrals and record keeping. Training of these TBAs has not been shown to improve maternal health care in the country.

Delays That Can Occur During Child Birth

The remote causes of maternal death during childbirth are rooted in the sociocultural and economic circumstances of the woman as well as the overall level of development of the society in which she dwells. Three delays can occur during childbirth.

The first is the delay that occurs before a decision is made to seek medical attention for a woman with complication in childbirth. This may arise as a result of lack of

information and inadequate knowledge about danger signals during labour, cultural practices that restrict women from seeking health care, perception of the quality of care provided in the health facility and accessibility to the health facility. In some parts of Nigeria, this delay contributes to up to 30–40% of maternal deaths.

The second occurs from the decision to seek medical care for a woman in labour with complication to the arrival at the health facility. Failures in the transport and communication systems are the main contributors of this delay. Others are poor siting of health facilities and poor community support.

The third delay is in receiving medical care after arriving at the health facility. Factors contributing to this include inadequate skilled personnel, maldistribution of personnel, inadequate equipment and supplies, lack of blood, lack of motivation of staff and the consequent uncompassionate attitude of health workers. Power and water supply interruption also contribute to this delay.

Strategies for Improvement of Childbirth in Nigeria

Decades after launching the Safe Motherhood Initiatives in Nairobi 1978, childbirth in Nigeria continues to be a challenge. There is a need to advocate for at least 15% of our total annual budget for health, and at least 10% of that for maternal health care. There is need also for the cultivation of political priority for safe motherhood. The process of safe childbirth is greatly influenced by the level of education of the woman; hence education for the girl child is essential for improving maternal health statistics. Education raises the women's status and empowers them to take decisions regarding their health during childbirth. There is need to change the perception and the attitude of the women and the community as a whole on the importance of antenatal care during pregnancy. At the same time, there is the need to improve the quality of care offered at the ANC, so that the women can perceive the benefit of the care.

Skilled Attendant

Training of TBAs is a controversial issue with many training programmes being abandoned in the 1990s based on the advice of WHO. In regions with very high maternal mortality and very high coverage of delivery by TBAs, it is plausible that training of well-selected TBAs in a culturally appropriate approach in delivery hygiene and prompt referral for complications might have an impact on reducing maternal mortality. The generally accepted reason for lack of efficacy of TBA training programs is that it did not link the TBAs with functioning health care systems. The solution could be to establish a linkage between TBAs and the nearest Emergency Obstetric Care (EOC) facilities as well as establish a mechanism or system whereby the trained TBAs can call the skilled attendants for the delivery when the need arises and they can work as a team. Increasing the proportion of deliveries with skilled attendants is regarded as a crucial intervention strategy and is widely advocated by international agencies (Safe Motherhood Inter-Agency Group 2000).

Provision of family planning is another key strategy in improvement of childbirth in Nigeria. Spacing childbirths can have great impact on child survival. It protects both the woman's and infant's health by protecting the woman from high risk pregnancies and unwanted pregnancies. Spacing and timing childbirth can promote proper child development

Men play a critical role in women's reproductive health. They decide if and when a woman uses a child spacing method. They decide how and when to make resources available for care during pregnancy. Finally they decide when a woman during childbirth seeks emergency care when complication arises. There is therefore the need to involve them throughout the process of childbirth. When involved, they can communicate better with the women and take joint decisions on child spacing, use of antenatal care and care during delivery.

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Childbirth in Tanzania: Individual, Family, Community

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In most cultures, childbirth is an important event for both family and community. It is a happy occasion for the members of family. Close relatives and neighbors offer presents to the mother and the newborn child, but the specific practices can vary widely in different communities (Kayombo 1996).

In Tanzania, various customs and traditions in the communities influence childbirth. Although many of these customs and traditions enhance good maternal and newborn outcomes, some may be harmful to the mother during pregnancy, at delivery or for the mother and child afterwards. Childbirth in Tanzania is also influenced by various factors that can affect birth outcomes. These factors range from the public health system to individual, social, and community characteristics. This chapter discusses these factors and their implications for the birthing process and maternal health.

Traditional Childbirth Care

Historically, before colonial times, children were born at home with the assistance of traditional birth attendants (TBAs), co-wives, mothers-in-law, aunts or mothers of the pregnant woman. TBAs commonly got their skills from older members of the family or community. Today, some TBAs have received training from the government to conduct safer and cleaner deliveries, and to recognize signs of complications when they occur. These TBAs are expected to advise mothers with complications to go to the modern health facilities. Traditional healers, who are local medicine men or women practicing healing of various diseases in the community, may also help women during childbirth. Other women commonly from the same family of the expectant mother who have experience of giving birth themselves or helping their close relatives, help women deliver or are consulted when there is a danger sign or a complication has occurred (Kayombo 1997).

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The TBAs are widely accepted and utilized to provide assistance during delivery. Some women prefer TBAs because they like to be assisted by a person with whom they are acquainted and comfortable. Most of the TBAs are part of the families or members of the community; they are well recognized and people have faith in and respect for them. Most of them are trustworthy and have earned their respect through their services to the community. They are commonly older females easily accessible when needed. TBAs normally prepare women psychologically for the process of delivery. Sometimes as part of the community they participate in traditional marriage ceremonies, so they get the young women early to understand and prepare for delivery. The TBAs commonly render their services at the woman's own home. In this way a woman feels that she is not alone and that she is safe. Other older women surround her; this adds to her confidence and reduces psychological stress (Jahn and De Brouwere 2001).

Modern Childbirth Care

Following the arrival of missionaries and soon after colonization, modern health units were opened in rural and urban areas. After independence in 1961, the number of government and missionary owned health facilities increased tremendously. These facilities provide treatment for various diseases, pregnancy care and delivery services. It is estimated that 72% of the population in Tanzania has access to modern health services within 5 km (TDHS2004–2005). Almost 94% of pregnant mothers have some antenatal care. However, only 47% of women deliver in health facilities.

In Tanzania's health care delivery system the lower health facilities (dispensaries and health centres) provide treatment for patients with no complications and refer those with complications to a higher level of care (hospitals). In maternal care the first referral level is defined as the district or sub district hospital. All women identified at high risk of obstetric complications or those who already have developed complications are referred for treatment and management. The district hospital usually can provide surgical and medical treatments, blood replacement, removal of the products of conception (evacuation), manual removal of the placenta, family planning and neonatal care.

Individual Factors in Childbirth

Age at First Birth

In Tanzania it is estimated that the average age at first sexual intercourse is 16. The age at first marriage is about 17 and most women have their first child at 18. By the age of 15, almost 10% of juvenile women have given birth, and 41% of all first live births resulted from premarital conception (Ngalida 1992). Studies in Tanzania have shown that girls who get pregnant at an early age are unprepared for motherhood.

Early age at first childbirth contributes to the high fertility rate in Tanzania and it is associated with a number of health risks for both mother and child. Problems of pregnancy at an early age include anemia, which may be severe enough to endanger the lives of the mother and the baby in utero. Pre-eclampsia, also known as toxemia of pregnancy, is very common with young mothers. It may progress to eclamptic fits which have bad outcomes for the mother and baby. Obstructed labour is commonly due to cephalopelvic disproportion, when the mother's pelvis is too small in comparison to the baby's body since the mother's pelvis is not fully grown. Infant morbidity and mortality are also common, as is prematurity which is associated with low birth weight and stillbirth (Ngalida 1992; Casterline and Trussell 1980).

Another socio-economic implication of early pregnancy and childbearing is that it hinders mothers from achieving higher education, often resulting in reduced economic opportunities to the mother and the family as a whole (Stephenson et al. 2006; Mpembeni et al. 2007).

Education and Use of Childbirth Services

The mother's level of education is an important factor in her decision to utilize modern health facilities for childbirth. A study showed that years spent in school is significantly associated with the tendency to seek skilled care during delivery. There is compelling evidence that awareness of danger signs and risks of pregnancy complications are important factors in early health care seeking.

Education may delay age at first intercourse and subsequently pregnancy and childbirth. Pregnant school girls are prohibited from attending formal schools and this encourages them to accept contraception and that delays first conception (Casterline and Trussell 1980). Since abortion is illegal in Tanzania other pregnant schoolgirls seek illegal abortions that make them vulnerable later on to maternal death.

Social and Community Factors in Childbirth

Contraception and Childbirth

Awareness of contraception is relatively high in Tanzania but use of contraception is very low. The demographic health survey (TDHS) showed that 88% of married women know at least one method of contraception, but knowledge was lower for women who have never married. Urban women more often choose to limit child bearing than rural women.

Along with traditional contraceptive methods, periodic abstinence and withdrawal are also used. The reason given for adopting traditional contraceptive methods is that women do not have adequate access to modern contraceptive methods from the family planning clinics (Ngalida 1992).

Religions and Utilization of Childbirth Services

In Tanzania there are several religions with different beliefs and therefore different influences on childbirth service utilization. Protestant Christians and then Catholics encouraged women to seek modern health care in child bearing (Kayombo 1997). In most areas where missionaries were established, they set up schools, health facilities, road networks and cash crop production. All these lift the financial wellbeing of the community and increase awareness and access to modern health care, while discouraging the use of traditional birth attendants and healers. This has both positive and negative results, as women no longer have the comfort of their families and their ways.

Customs, Beliefs and Childbirth

In some rural parts of Tanzania, there are beliefs that problems associated with labour are due to witchcraft. In one tribe (Safwa), it is believed that women who suffer from stomach pain immediately after delivery or swelling of the legs may have committed adultery (Kayombo 1997). Labour lasting longer than 24 hours is perceived to be caused by witchcraft or transgression of cultural norms such as committing adultery. When a woman with prolonged labour goes to a TBA, she may be required to confess about all the men with whom she had had sexual relations before the TBA will assist her.

There are also other undesirable customs associated with abnormal birth such as twin delivery, breech presentation, swelling of lower limbs and pre-and post delivery bleeding. In some tribes the practice was to isolate the mother and her child putting them into huts away from their families in seclusion until the child was 3 years old or more. The services rendered to them were poor, until they were cleansed by medicine men (Kayombo 1997). Some women, mostly those over age 40, supported this behavior towards seclusion, whereas others perceived it as a form of torture.

Community's Perceptions on Quality of Childbirth Services

In the southern part of Tanzania, women tend to deliver at home, because of the presence of close relatives and loved ones. This is contrary to the situation found in modern health facilities where women are assisted by a health worker, who is sometimes unknown or a stranger. Bad attitudes of health workers, including use of abusive language, denying services to some women, lack of compassion, use of threats, poor counseling skills and lack of privacy and confidentiality, are other factors that deter mothers from using modern health facilities for delivery.

Older women choose to give birth at home to avoid contact with young health workers who are the same age as their own children. Furthermore, some young

women do not like to deliver at a health facility because of the presence of male health workers during delivery (Mrisho et al. 2007).

The Role of the Community in Childbirth

Community plays a role and has an influence in childbirth since birth is a social and demographic event in a family and community (Swantz 1966; Kayombo 1996). Members of the family and close relatives come together with offerings and presents for the child and mother (Kayombo 1996). In rural areas, the mother or mother-in-law of the woman who has delivered may stay with her daughter for weeks until she gains enough strength to perform household duties (Kayombo 1997). These good treatments for mothers influence other women without children to want the opportunity to enjoy such occasions, and it encourages them to have babies. A woman without a child in the community lacks social respect and faces tremendous stress of discrimination.

In some societies a woman who delivers unassisted is seen as a strong woman and a hero. This makes many women decide to deliver at home without assistance. It is common to find most women with short labours delivering at home unassisted. Health facilities are perceived to be helpful to those women with prolonged labour or other foreseen complications (Mrisho et al. 2007). The concept of heroism and decision to deliver at home sometimes lead to unforeseen complications.

Decision Making in the Community and Childbirth

In many communities in Tanzania the bread earner is the main decision maker in the family. In most societies it is a man. This is observed more in rural areas and in communities in which the level of education is low. When a woman is not educated or does not have economic power, she becomes a housewife and a recipient of the orders given by a man. Although the husband is seen as the main decision maker, if he is neglectful or unable to foot the cost of referral, the parents of the pregnant woman may interfere. If the pregnant woman's parents take their daughter for referral then the husband normally joins them (Pembe et al. 2008). The husband might also solicit help from the in-laws so that he should not be blamed if death occurs. In an emergency referral women are not involved in the decision. The husband, parents and other relatives are the ones who make the decision; the woman is only informed when the final decision has been reached. The choice of where to go is very complex and it involves financial capability and the social situation of the family, parents of both sides and even neighbours. The involvement of the community is the same as in other communities where extended families, clans and tribal organizations have traditionally provided a system of mutual aid should catastrophic illness strike (Shaw and Griffin 1995).

Health System Factors and Childbirth

Cost and Choice of Childbirth Services

Delivery in a modern health facility costs more, so women opt for TBAs. Most TBAs are paid in kind or presented with gifts that range from poultry, food crops or domestic animals.

The government of Tanzania has a policy to provide maternal services free of charge. The aim is to serve the economically weak segment of the population. However in a real situation, even if mothers and their families do not pay for delivery services and medication in the health facilities, there are costs they encounter such as travel to and from the health facilities. In a study done in one of the rural districts, the community expressed its concern over the living cost incurred when a mother is referred to the hospital. When the pregnant woman is referred, she usually is accompanied by her mother in-law and/or a relative to assist her at the hospital and to donate blood when needed. Also the people that escorted her have to find a place to stay for that period. Less poor women are therefore more likely to deliver in health facilities than very poor women (Mrisho et al. 2007).

Accessibility of Modern Health Facilities and Childbirth Services

As stated earlier, 72% of the Tanzanian population has access to health units within 5 km. In some regions, the average is even higher. In Kilimanjaro for example, 93% of the total population is within 5 km and 98% within 10. Despite the closeness to health facilities, more than 53% of women deliver at home (TDHS 1996; World Health Organization 1998). Factors influencing such utilization are not fully known. Studies have shown that women and the community think that some of the risks identified during antenatal care do not deserve a referral to a hospital. The community neglects risks like short stature, first pregnancy, young age and many pregnancies (Pembe et al. 2008).

Referral and Childbirth

When a woman develops an obstetric complication, access to a nearby lower level health facility is not of much help. These facilities are not well equipped to deal with obstetric complications. Most of the rural districts have few roads and those that exist are difficult to travel on especially during the rainy season. Some of the lower level health facilities are far from the referral hospitals, making transportation more difficult.

Self-referral for delivery often without a specific medical reason is the commonest mode of referral, where institutional referral is less frequent and emergency referral very rare. In a study in Nepal, poor resource allocation at the community

level in case of an emergency or lack of funds for transportation, difficult geographical settings as well as whether the identified condition was perceived to endanger life by the community posed bigger challenges during referral (Wagle et al. 2004).

Implications

Tanzania is passing through a transitional phase from traditional practices and beliefs to the modern technological era. Understanding how these individuals, families, communities, and traditional and modern health factors affect the welfare of the mother and newborn can help to design more informed implementation programs for better outcomes. At the individual level, early pregnancy and childbearing often hinders mothers from achieving higher education, which results in reduced economic opportunities for the mother and the family (Stephenson et al. 2006; Mpembeni et al. 2007). Education is regarded as an important factor in delaying age at first intercourse and subsequently unwanted pregnancy and childbirth.

Poverty is another factor that affects liberty for decision making for both women and men. The role played by the parents of the woman in deciding to take their daughter to the hospital when her husband neglects her or by her own inaction in emergency situations reflects more on the issue of poverty than gender (Pembe et al. 2008).

As a result of inadequate maternity care services, approximately half a million women die each year from complications of pregnancy or childbirth. The level of maternal mortality is disproportionately high in sub-Saharan Africa where about half of the maternal deaths occur (Hill et al. 2007). In Tanzania maternal mortality rate is 578/100,000 live births (TDHS 2004–2005), but other studies have found it to be as high as 990/100,000 live births (Ministry of Health 1997). The lifetime risk of maternal death is 1/38 (Olsen et al. 2000) and Tanzania ranks sixth in the world with the highest levels of maternal mortality. Tragically, 20 years after the global safe motherhood initiative and eight years after the UN millennium summit there have been very few improvements, if in fact there have been any.

The system of focused antenatal care also presents challenges in screening high-risk pregnancies in settings where the quality of care is not optimal, since women now have fewer visits and there is a smaller chance of being detected with a risk factor.

Around 53% of all childbirth occurs outside health facilities. In health care facilities there should be adequate and constant supplies of both medicines and instruments, as well as mechanisms to enhance emergency referral at the primary health facilities.

Infant and child mortality has been decreasing markedly in the past 8 years. It is estimated to be 68/1,000 live births which is way down from the 99/1,000 live births in 1999 (TDHS 2004–2005; TRCHS 1999). This is one of the lowest mortality rates in East Africa. This could indicate better health in general or a good combination of traditional and biomedicine. Several elements in childbirth still need to be addressed to ensure the health of mothers and babies in Tanzania.

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Culture, Pregnancy and Childbirth in Uganda: Surviving the Women's Battle

Grace Bantebya Kyomuhendo

In Uganda, there are diverse and distinct cultures, and people give specific expressions or attach particular interest to basic events in life such as pregnancy and childbirth. Although much is known about the clinical aspects of conception, pregnancy, birth and the postpartum, it is widely believed that these events are greatly influenced by social and cultural beliefs, including gender and power relations and differences in roles and status between the sexes (Vlassoff and Bonilla 1994; Ubot 1992; Koblinsky and Tinker 1993; Caldwell and Caldwell 1990; Mukhopadhyay and Higgins 1988). Socio-cultural expectations, such as the desire to have a large number of children or deliver children of a particular sex, and also the meaning of birthing, are key motivations for child bearing and getting pregnant. These also bring with them associated health risks (Kyomuhendo 2003; Ntozi 1990).

Studies conducted in Sub-Saharan Africa before 1990 often focused on the socio-cultural aspects related to the health seeking behaviour of women during pregnancy and childbirth. However, what generally emerges from these is the view that birthing yields immense power, attributed to the unique nature of childbearing, and that this is especially noticeable in societies where women command much less power than men in the community domain (Kyomuhendo 2003).

> . . .Birth represents a rare opportunity for a woman to demonstrate the proverbial virtue of courage and bring honour to her and her husband's families by her stoic demeanor. The woman who manages to deliver without indication that she is in labour and without calling for assistance until the child is born is especially esteemed. . . (Sargent 1989)

For example, among the Mende of Sierra Leone, childbirth is essentially a women's affair. Birthing takes place within the feminine religious domain of Sande women and is literally "women's business" (MacCormack 1989).

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The San women of the Kalahari Desert are an extreme example of unassisted birthing. “The woman sets out to the bush to deliver alone” (Sargent 1990). San daring in childbirth has been paralleled with male daring in hunting; the dichotomy symbolizes the balanced valuations between birthing as reproduction and hunting as production. The domain of human reproduction thus bridges the biological and the cultural, and articulates the society’s patterns of gender role organization and the associated ideological and socio-political dynamics (Sargent and Bascope 1996).

In a study among the Banyoro in Uganda, it emerged that community members share common perceptions of conception, pregnancy, labour, birth and the postpartum period. Pregnancy is perceived as an inevitable burden, unique but essential for the continuation of life and the lineage. The first pregnancy marks the crucial transition in status from woman to mother, and subsequent pregnancies enhance that status, moulding the mother into a mature and responsible member of society. In this context a woman’s ability to conceive, go through pregnancy and give birth is regarded as a virtue, which gives her high social status and power. Mothers were often not referred to by their own names, but by those of their children. In contrast, childless women (*engumba*) were regarded negatively, often associated with evil, bad luck or sin and relegated to the lowest social status (Kyomuhendo 2003).

Conforming to this birth culture not only familiarized Banyoro women with pregnancy and childbirth, but also gave value to their experiences. Pregnancy and childbirth are equated with walking down a hazardous, thorn-strewn path where death or survival are the only two possible outcomes. A woman who goes through pregnancy and delivers a healthy baby is seen as having bravely endured the dangers. Her resilience is proudly recognized with the traditional praise *garukayo* (dare go back), to which she responds *haliyo amahwa* (there are thorns). A woman who dies during pregnancy, labour or birth is seen as the hapless victim of the thorn-strewn path. Though her death is viewed with sadness, basically it is referred to as normal and thus a non-event.

The traditional praise *garukayo* not only far supersedes mere praise of the new mother; it is also meant to remind her that the hardships endured notwithstanding, she has no option but to prepare to get pregnant again. The metaphoric “thorn strewn path” also has other implicit meanings, for example that the woman will be unprotected, that injuries and death are unavoidable risks, beyond human power and control, and that that’s a woman’s fate (Kyomuhendo 2003).

Thus among the ethnic Banyoro, where women have a low status, subservient to that of men, with less control over resources and in general inferior *vis-à-vis* social power, the way a woman endures pregnancy and birth has implications for her position in her household and community. One who experiences no problems and needs no assistance is held in much esteem, having walked bravely through the hazardous path and emerged unscathed.

On the other hand, a woman who experiences a difficult pregnancy, perhaps requiring prolonged hospitalization, an episiotomy or caesarean section, is not respected and is referred to as *omugara* (lazy) though the circumstances may be

beyond her control. To seek external help is to stumble, and such women even after delivery do not and are not accorded a genuine *garukayo*. They are seen as being of diminished status and command less power.

Lutalo Lwabakyala (Women's Battle); Local Community Perceptions of Pregnancy and Childbirth

A common theme that emerged from my research was that pregnancy is a condition that prepares women for the *Lutalo Lwabakyala* (women's battle) that is childbirth. Every woman is expected to win this battle, and the way that it is won is a very significant factor in the community, closely related to power relations. A woman is expected to be stoical during pregnancy and childbirth; she should not show any signs of fear. As one Traditional Birth Attendant (TBA) pointed out, *Omukyala atya omwana abeera wakyegyo* (a woman who fears birthing is childish).

A pregnant woman is seen as weak (*munafu*) or sick (*mulwadde*) or generally not in good health (*yasobye*). Her status and power is found therefore, in her ability to show strength in the face of this weakness. A pregnant woman, like other women, is expected to perform her routine chores and obligations normally and should not in any way show signs of weakness. If a pregnant woman shows signs of weakness or falls sick frequently, the husband normally sends her back to her natal family until she improves. *Omusajja akwagala ngaoli mulamu* (A man likes you when you are healthy).

A woman who delivers herself is highly respected. *Omukyala oyo wamani yezalisa yekka* (That woman is powerful or strong; she delivers on her own). As in any battle, there are always causalities. A woman who delivers by caesarean section is referred to as *kulemerwa or yalemeredwa* (she failed to deliver on her own). As woman who dies during childbirth is referred to as *afiridde mu lutalo lwa bakyala* (she died in the women's battle). Culturally her death is attributed to internal weaknesses on her part, even though external factors may have hampered her access to appropriate biomedical care. To the community, a proper woman (*omukyala omutufu*) should among others not lose this battle; if she does it is her personal failure.

Women known to have delivered without assistance derived some form of empowerment out of their experiences. When narrating their birthing experiences, they exuded internal strength and a strong sense of resilience and self-determination implying that they were probably in a better position to make strategic life choices and control their destinies.

Giving birth unassisted not only earns them respect from their husbands, but overall makes their marriages stable. Empowerment is not derived from new options and one's ability to utilize them to assert herself, but from stable marriages. Hence delivering unassisted is closely related to status and empowerment. None of the women in the study talked about using their elevated status to make choices that

directly or indirectly challenge the entrenched gender inequalities both in the domestic and wider community settings.

Childbirth: A Test of Endurance and Tolerance

Traditional birthing practices and beliefs that pregnancy is a test of endurance and tolerance of physical pain and other life threatening symptoms provide an environment which limits the women's options. Many women thus prefer to deliver at the TBAs or at home with relatives for a number of reasons, including birthing positions and the associated cultural practices, a familiar and supportive environment, minimal transport costs and avoidance of interactions with health workers who are more often than not seen as non-supportive, judgmental and unmotivated.

In Kiboga as in other communities in Uganda, there are roles and responsibilities assigned to men and women respectively. Each group is traditionally obliged to fulfil their roles and responsibilities. Women are responsible for household chores, feeding the family and other care activities. Men on the other hand, are perceived as the breadwinners, decision makers and controllers of household resources.

While decisions regarding pregnancy and childbirth are considered to be within the female domain (beyond the interest and concern of men), access to money makes men central to the whole process. Most men are not aware of the complications women face during pregnancy, birth and the postpartum, and even if women made the decisions, without access to money these decisions would not be meaningful.

Another factor which lies in power dynamics is the delay of referrals to health centres. No one would want to be known to fail a woman in her unique and personal battle. It becomes the talk of the village. When the participants were asked if they had ever seen a woman die with a TBA, all of them said they had never. They explained this by saying that women usually die on the way to or at the health facilities, after being sent there too late by the TBA.

The midwives in response to the above allegation noted that when the women are referred to them by the TBAs, it is normally too late. The health centres can no longer cope and refer them to the hospitals, a fact that is misinterpreted by the community as chasing the women away.

Overall in this study, consensus views and narratives offer group perceptions of the realities in community norms in pregnancy, childbirth and the postpartum. These norms subject women's lives to danger and may enhance the risks of maternal morbidity and/or mortality. Women in particular seem to be caught up in an endless web of adhering to cultural expectations and practices and upholding their status.

Childbirth emerges as the ultimate marker of affirming women's status and identity, and the birth process is accepted with fatalistic attitudes even elsewhere in Africa. The conceptualization of childbirth as the "women's battle" which was prevalent in Kiboga is also found in West Africa, where maternal mortality is explained in an expression that translates as, "She fell on the battlefield in the line of duty" (Diallo 1991). The biological differences between men and women appear to

get maximum separation during pregnancy and childbirth as the community refers to most of the activities as women's affairs. These perceptions and practices are important challenges in trying to encourage men's roles to reflect gender sensitive options.

Gender roles in pregnancy and childbirth reflect traditional gender stereotypes in the community. Although some previous documented work suggests that women support granting more autonomy to women and less for men, in this study surprisingly there were many women opposing women's autonomy in decision making, access and use of resources. This could be a reflection of the earlier view that women's status or power arising out of their maternal roles and birthing experience does not have much bearing on our understanding of the construction of empowerment relations in both the domestic and wider community spheres.

Conclusion

Community perceptions and cultural expectations have a significant bearing on women's reproductive health and childbirth outcomes in particular. In rural ethnic communities where continuation of the lineage is a central dynamic and where the individual is subordinated to the group, the importance of a woman lies in her ability to bear children. In the context of power dynamics, pregnancy and childbirth is one of the key areas where women still command power and respect. This is an area where women would want to keep control of a factor that enhances their status, not only within the home but the wider community as well.

In Uganda, some of the reasons for the poor quality of care for pregnancy, childbirth and the postpartum may be linked to women's low status and powerlessness. Addressing the latter could thus be a good starting point and this requires a holistic approach including the sensitization of health workers to the plight of rural women. Communities and all other reproductive health stakeholders need to understand that women's real status and empowerment do not lie in subjecting oneself to risky pregnancy, childbirth and postnatal options. It should be understood that it is women's right not to endure, but to be armed adequately to win any "battle" in whatever circumstances.

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Childbirth Experiences in Malawi

Lennie Adeline Kamwendo

Childbearing women the world over share the common events that signal the existence of a pregnancy: the physiological changes that take place and the fact that the baby will be born either vaginally or through a caesarean birth. However there are always elements of pregnancy, labour and puerperium that will be unique for every woman and this will in some way be influenced by the woman's cultural background and societal expectations. In Malawi, a small country in East Central Africa (See Fig. 1), there are various cultural practices related to childbirth. The country is divided into three geographical regions which are further subdivided into 28 administrative districts.

Experience has shown that childbearing women in Malawi are exposed to a variety of cultural practices even in districts which share a common language. Cultural beliefs and practices influence the number of children that a family will have; the choice of place of birth, the speed with which skilled care will be sought and how the mother and her newborn will be cared for.

This chapter describes common beneficial and harmful cultural practices related to the process of childbirth in Malawi and their impact on pregnancy outcomes and the challenges that these practices pose for midwives and other health care providers. Some cultural practices are similar across districts while others are very different.

Beneficial Childbirth Practices

Cultural beliefs and practices for the most part serve to benefit communities and are usually wholly accepted by members of a particular family and community regardless of their effects on individuals. It is generally accepted that those cultural practices that are harmless should not be discouraged while those that are harmful should be discouraged or altogether eliminated to ensure healthy communities. In Malawi, there are some practices related to pregnancy, childbirth, postpartum and newborn

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Fig. 1 Map of Malawi

care that can be considered beneficial as they have a positive impact on the lives of the woman and her newborn as well as midwifery care. Following are some of these beneficial practices.

Social Support

In Malawi, a pregnant woman enjoys family support especially with but not limited to a first-time pregnancy whereby her mother or another very close female relative will come to stay at her family home to help with household chores until the woman gives birth. Some mothers-in-law have taken on this supportive role. This allows the

pregnant woman to have the required rest especially towards the end of pregnancy when pregnancy becomes cumbersome. This support continues well into the postnatal period and may explain the seemingly low incidence of puerperal depression. Until recently, issues surrounding pregnancy and birth were very much women's business in Malawi, but now more and more men are getting involved. A few men have actually witnessed the birth of their children especially those who utilize private maternity facilities in cities.

Avoiding Standing in the Doorway

One other belief that may be considered to be beneficial is the prevention of pregnant women from standing in the doorway as this is thought to prevent the descent of the baby through the birth canal during labour. A doorway gives access to people entering and leaving a building and some of them may be in a hurry. It is therefore a busy place which is unsafe for a pregnant woman.

Avoiding Spicy Foods

It is believed that when a woman eats food containing pepper, the baby will be born with a rash and therefore pregnant women are discouraged from eating spicy foods. For those pregnant women who suffer from heartburn, this belief is a natural management of their minor ailment regardless of the fact that this is just a myth.

Counselling Sessions

This is a very common practice across all cultural groupings in Malawi. As pregnancy advances, the woman's mother or mother in-law arranges for a counselling session either at the woman's house or at her mother/mother in-law's house where four or five elderly women come to give various forms of advice to the pregnant woman. The first session takes place during pregnancy and advice ranges from sexual activity (to abstain from sexual intercourse after the sixth month of pregnancy) to pain management in labour. This session is locally known as *Kuvinidwa*, "being danced". A woman who has gone through this session is expected to bear the pain of uterine contractions without crying. She is also expected to know how to push the baby out when the time comes.

The second session takes place after the birth of the baby and reinforces abstinence from sexual activity for a further six months. However, some of the advice given at this session has a negative impact on both the mother and her newborn as explained later in this chapter.

Prevention of Birth Before Arrival at A Health Facility

Pregnant women often delay in reporting to the labour ward until labour is very advanced. This sometimes means reaching the second stage of labour before arrival at the hospital. In this instance, the pregnant woman will carry a stone on her back to delay the birth of the baby until she reaches a health facility. Experience has shown that as soon as the stone is taken off the pregnant woman's back, the baby is delivered immediately.

Like most cultural practices, the link between the stone and physiological processes of the second stage of labour, are unclear. However, this appears to be a good psychological conditioning that helps women to avoid giving birth on the way to a health facility, that is, in an environment that would lack privacy and possibly harm the baby as well as the mother.

Prevention from Cooking

Traditionally, women who have just given birth are not allowed to cook especially food that would require salt to be added. For as long as a woman discharges lochia,[1] she is said to be "dirty" and should not handle food. Therefore a female family member is expected to be available to assist with the cooking. Even though this belief is demeaning to a postnatal woman who is certainly not "dirty", the practice ensures that she rests from cooking and has more time to concentrate on the care of her newborn baby. The notion that she might be dirty encourages her to bath more frequently and this ultimately reduces the risk of puerperal infection. Urban women are less likely to adhere to this practice as cultural values become diluted. Additionally, it is not always possible for family members to leave the village for long periods of time and come to the cities to assist the postnatal woman. Some working women depend on employed home help who take on the role of a female relative where cooking and other household chores are concerned.

Confinement

Following childbirth, the mother and her newborn are expected to live in a confined room with limited access to the outside world for up to a month. During this time very few close family members are allowed to hold the baby. In some cultures, anyone who has engaged in sexual activity is not supposed to touch the newborn as they are thought to be "hot" and can harm the baby. This practice clearly reduces the risk of family members and neighbours transmitting infections to the newborn. During this same period, the postnatal mother sleeps on a separate mat from her spouse as she is deemed to be unclean. However, this allows the mother to recover from the process of birth as well as allowing time to heal any genital tears before resumption of sexual activity. After the period of confinement, the woman has a special bath to which herbs are added. Then the clothes that she was wearing during

the confinement are supposed to be discarded. However, these clothes are usually given to the elderly women who participated in the counselling sessions or to her grandmother.

Harmful Cultural Practices

Food Taboos

Pregnant women are advised not to eat eggs for fear that the baby would be born with an egg shaped head. It is common knowledge that eggs yield protein and fats that would benefit the pregnant woman. Discouraging pregnant women from eating eggs is an unnecessary compromise on the diet of those women who can afford to buy the commodity. In some cultures pregnant women are prevented from eating offal as it is believed that the baby would be born with a cord around his neck. In Malawi, offal are the cheapest meat products and are more affordable for most households.

Sexual Activity

As stated above, in all districts of Malawi, it is expected that a pregnant woman will stop indulging in penetrative sexual intercourse. The period of abstinence may vary from district to district ranging from the sixth month of pregnancy up to 6 months following the birth, i.e. for a total period of nine months. This is one of the most common practices and it stems from the belief that after 6 months of pregnancy having sexual intercourse may harm the baby. The presence of vernix caseosa[2] at birth is attributed to sexual activity i.e. vernix is thought to be an accumulation of semen. Instead of penetrative sexual intercourse, expectant couples are advised to use the woman's thighs for penile thrusting and ejaculation. Sex in the puerperium is thought to bring evil spirits upon the baby and therefore has to be avoided until the baby is older. In this respect, it is not unusual for the postpartum woman to leave her marital home and go to live with her parents in the village for a few months.

While the abstinence is expected between the couple, the belief does not extend to the man having sexual relations with women outside the marriage. The practice creates a situation where the extramarital relationship continues even after the woman has given birth. There is no doubt that this belief and practice encourages extramarital sexual relationships and predisposes the family to human immunodeficiency syndrome (HIV).

One other belief related to sexual activity is that the expectant couple should have frequent intercourse to promote growth and development of the fetus. Even though this practice is not necessarily harmful, it implies that the woman will be forced to have sex with her husband even when this is uncomfortable for her.

Delay in Seeking Health Care

Malawi's Ministry of Health (MOH) has identified three delays that contribute to the high maternal mortality ratio. According to the Malawi Demographic and Health Survey of 2004, this ratio now stands at 984/100,000 live births. The first delay is in deciding to seek health care when needed; the second delay is in accessing health care once a decision to go to a health facility has been reached and the third delay relates to accessing appropriate care while in the health facility (MOH 1995). It is the first delay that stems from cultural practices. Malawi has both matrilineal and patrilineal family structures but a pregnant woman's uncle is invested with the powers to make major decisions including when to seek formal health care when there is a problem or when labour starts. This is the *Mwinimbumba* phenomenon that Gillian Barber (2004) describes in her study of selected villages in one of the southern districts of Malawi. In most rural settings the uncle's powers as a decision maker may be very strong while in others, including urban settings, the husband may be in a position to make an independent decision to take his wife to the hospital.

Delay in seeking appropriate health care also occurs when a woman has either obstructed labour or eclampsia[3] as both these obstetric emergencies are attributed to infidelity. Eclampsia is believed to result from infidelity by the woman while obstructed labour is blamed on the husband. The woman is kept at home until she or her husband reveal with whom they had an extramarital sexual relationship. For every relationship revealed (real or imagined), the pregnant woman will either be asked to untie a knot on a string or be given *Nsatsi* seeds to take orally. One *Nsatsi* seed is also administered orally as prophylaxis for obstructed labour (Eliya, 22nd July, 2008, personal communication)

Nsatsi is a plant that grows wildly and the shiny brownish seeds are found in its pods (see Fig. 2 below).

In one southern district of Malawi, cultural management of obstructed labour also includes asking the husband or partner to wash his penis and the water that he used is then given to the pregnant woman to drink.

Home Births

Any discussion on traditional birth practices has to include Traditional Birth Attendant practice. According to the Malawi Demographic and Health Survey of 2004, there is still a large proportion of women who deliver at home (44%) assisted by either a Traditional Birth Attendant (TBA) or family members (NSO and ORC Macro 2005). Malawi as a country is moving towards access to skilled care for the majority of women, but it is still a long way away from achieving this goal. Traditional Birth Attendants still form part of a significant community health service. The practice of these women and a few men is enshrined in traditional beliefs which guide the way they view pregnancy and childbirth, the way they diagnose

Fig. 2 The *Nsatsi* plant. Photo by the author

pregnancy and labour as well as the way they manage newborns. Unfortunately, some TBAs are unable to determine when pregnancy and labour are deviating from normal; for financial gains, they are unwilling to refer women with complications to health facilities. Some TBAs encourage a woman to start pushing before the second stage of labour is reached with dire consequences for the mother and her fetus or the newborn.

While some of the pregnant women have home births because they prefer TBAs compared to contemporary midwives, many first-time mothers are forced to have a home birth where the baby's paternity can be determined just in case the woman came into the marriage already pregnant by another man. This practice contributes to the first delay described above, as the woman will only be taken to a health facility when a complication arises.

Use of Traditional Oxytocin

A common cultural practice is for a woman who starts having uterine contractions to take a traditional oxytocic concoction. The plants used for this vary from district to district but the leaves of a plant locally known as *Kabata* or *Chisoso* are commonly used in the north of Malawi. This plant produces spikes (as seen in Fig. 3) which stick to clothes when one comes into contact with the plant along overgrown paths or gardens.

Fig. 3 The Kabata/Chisoso plant. Photo by the author

In some cultures, the pregnant woman is advised to insert the slime of ochre into her vagina when labour starts in the belief that the baby will easily slither through the birth canal and thus speed up labour. She is also discouraged from drinking water, as this is believed to cause cessation of uterine contractions resulting in prolonged labour.

When a woman gives birth at home and the placenta is retained, TBAs or family members who assisted at the birth administer a concoction made out of the bark of a tree locally known as *Mpoza.* The bark is steeped in water for a while and this water is administered orally.

Care of the Newborn

Traditionally, a Malawian newborn does not enjoy the status of being an individual until he/she is a few months old. To begin with, a pregnant woman does not prepare clothes for the expected newborn because she "does not know what she is carrying". Midwives in antenatal clinics encourage women to buy clothes and other necessities for the unborn child but some women adhere to the cultural belief that preparing the layette beforehand brings bad luck including delivery of a stillborn baby.

When the baby is born, most rural families will not name him/her until the umbilical cord falls off. The link between the presence of the cord and naming is not clear. However, the umbilical cord is treated with a variety of substances including cow dung, wood sap, maize husks and breast milk. Needless to say, these traditional

applications result in chemical burns and infections of the umbilical area. The cow dung also exposes the newborn to tetanus infection. Once the umbilical cord falls off, the mother secretly disposes of it, to ensure continued fertility. It is believed that other people who do not wish her well may use the cord to cause secondary sterility. In a home birth, the placenta is also disposed of by very close relatives like the woman's mother or grandmother for the same reason.

At the age of one month the baby is bathed with water to which medicinal herbs are added and it is usually at this time that the baby is named. In some cultures, the baby is also given an herbal concoction called *Maoza* or water which has been used to wash hands "to make him/her strong". This appears to be the traditional way of administering immunity to the baby using obviously unclean water.

As indicated earlier childbirth in Malawi is to some extent still very much a women's business to the extent that when a newborn dies (in some cultures up to 6 months of age), men do not participate in the funeral arrangements and ceremony at all.

Challenges of Malawian Birth Practices

While midwifery practice entails recognition and respect for childbearing women's cultural practices, the challenges that some of these practices pose are enormous. The diversity of the practices are in themselves a challenge as it is impossible for midwives to be aware of all the beliefs and practices as well as what has already occurred at home and before the woman reports to the hospital. Health messages during antenatal care emphasize reporting to health facilities early so that appropriate care can be instituted and complications averted and yet most women continue to come when complications have already occurred. Use of traditional oxytocin is discouraged especially as the dosages of the concoction are unknown and many ruptured uteri have resulted from its use. However, these practices are so entrenched in the process of childbirth that women continue to put their lives at risk. Even though midwives routinely ask on admission to the labour ward whether a woman has taken the "local" oxytocin, they will always deny it.

The power play between the woman's husband and her *Mwinimbumba* has often resulted in the woman reporting to a health facility only when complications such as obstructed labour or postpartum haemorrhage have occurred. While Traditional Birth Attendants or family members wait to resolve fidelity issues, the lives of both the mother and her foetus deteriorate. Malawi currently faces a critical shortage of midwives and material resources, so that dealing with childbirth complications is more problematic.

As indicated earlier, abstaining from sexual activities for such a long time encourages extramarital sexual relationships and in a country where HIV prevalence is high, the risks are serious. Inserting the slime of ochre into the vagina also predisposes the woman to infections as the substance is unclean.

Conclusion

Cultural beliefs and practices play a major role in determining pregnancy and childbirth outcomes in countries like Malawi. While some practices are beneficial for the wellbeing of the mother and her newborn and need to be encouraged, some beliefs and practices are obviously harmful and contribute to high maternal morbidity and mortality. Knowledge of the common practices can go a long way towards structuring more meaningful messages and other aspects of health care despite the challenges posed by those beliefs that are deeply entrenched in childbearing women and their families.

Notes

1. The discharge of blood, mucus and tissue from the uterus after the birth of a baby.
2. A white substance that covers the skin of the fetus (while inside the uterus) and helps to protect it.
3. Convulsions or seizures brought on by seriously high blood pressure in pregnancy.

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Navajo Birth: A Bridge Between the Past and the Future

R. Cruz Begay

Navajo lands are comprised of about 27,000 sparsely populated square miles of land in the southwestern United States. Over 250,000 Dine' (pronounced Da NAY), or Navajo people, live on or near the Reservation (Navajo Nation). The Tohono O'odham Nation is the second largest American Indian tribe in Arizona, but it is small, with less land and only 24,000 people, and less isolated in comparison to the Navajo Nation (Inter Tribal Council). I am a Tohono O'odham woman, but I spent most of my adult life living in a remote area of the Navajo Reservation with my Dine' husband. Living there I sometimes felt like I had slipped back to an earlier generation. My own mother was born on the Tohono O'odham Reservation and her mother, my grandmother, did not speak English. Born in 1924, my mother was sent to a Bureau of Indian Affairs (BIA) boarding school in the town of Yuma, Arizona when she was 5 years old. There she learned the American language and received an education informed by the federal government's policies of assimilation and vocational training for American Indians. My husband's parents, although about the same age as mine, lived so remotely that they were never forced into boarding school and never learned English; they still maintained a traditional Native way of life. By the time their children were school age, government influence had reached them, and my husband was sent to a BIA boarding school. He experienced many of the same practices of forced assimilation in the school that my mother had when she was a child. That is why I sometimes felt that I had gone back a generation when living with him and his parents.

My husband's mother had given birth to him and 15 of his siblings at home. Few women in that part of the Reservation went to hospitals until the late 1960s, and my husband was born at home in 1954. When I was pregnant with our second child, I began to ask my mother-in-law about birthing children at home. Her answers to my questions opened my eyes to aspects of childbirth that I not considered before and led me to begin asking questions of other older women about traditional childbirth. Their stories about childbirth inspired me to have our last two children at home.

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They were born in our hogan, Navajo hexagonal home, using traditional ways of birth.

Within a time span of 20 years, from 1948 to 1968, Dine' women changed from giving birth in their homes to having babies in Indian Health Service hospitals. In 1955 the US Public Health Service took responsibility for medical care on the Navajo reservation. At the same time increasing numbers of children were being sent to boarding schools for most of the year (Kunitz 1976: 16). Even though children were still being born at home in the 1960s, their older brothers and sisters were often away at school at the time. These school children knew that they had younger siblings born at home, but few of these children were actually able to observe the birth of siblings. A consequence was that knowledge about childbirth practices at home began to disappear. In many indigenous cultures, including the Tohono O'odham and Dine', learning is "caught not taught". Learning takes place by living and receiving instruction when necessary. Information about traditional childbirth practices was no longer available to many American Indian mothers when this system of learning changed.

By 1980, boarding schools had been institutionalized for years on most Tribal Reservations in the United States. During the 1980s most of the Dine' women of my parent's age had given birth at home, but they were past childbearing age. Women my own age went to the Indian Health Service hospitals. Most women did not learn about traditional childbirth practices, because they did not learn about these practices from the Bureau of Indian Affairs and the Indian Health Service. I am past childbearing myself now. As a grandmother, I realize now that it is important to tell young people about traditional childbirth. I believe that pregnancy and childbirth is a time in a woman's life when she is a bridge between the past and the future. It is important that she feels and understands this connection in order to create a more meaningful birth experience. I believe it is possible to recover the stories about traditional childbirth and to recover the basic spiritual, cosmological bonds that connect us to all other women. Ultimately a woman's sense of herself as a person and a mother comes from these connections.

I spoke with Dine' women, first-time mothers in the 1970s, who knew little about what to expect in childbirth. They rarely went to prenatal visits and had seldom been to the hospital at all. They had a sense that there was some danger in childbirth and that the hospital was a safe, though alien, place to have a baby. Older women, who had their babies at home before the 1960s, told me that they were not afraid of childbirth. They did not think that the hospital was any safer than home. This attitude toward childbirth outside of the hospital was unexpected; I had assumed that women welcomed hospital birth in order to feel safer than being at home. When some of those older women told me they later had children in the hospital, they said that it was not because it was safer but because the hospital could give them pain medication and that they were given gifts to take home – diapers, baby clothes, shampoo, and soap. They also were pleased that the hospital saved their families from having to endure so much trouble for the birth. The stories and advice from the young and old Dine' women helped me to write the sections that follow to elucidate some of the trouble of childbirth during prenatal preparation and traditional childbirth.

Prenatal Preparation Stories

During pregnancy a woman should stay busy. This, Dine' women told me, will keep the baby from growing too large and also keep the mother from anticipating the birth too much. It is considered unwise to dwell too much on the future. Baby showers are considered to be acts of "tempting fate", or excessive planning for the future; and it is still common practice to wait until the birth of child to have a baby shower. Preparation for childbirth involves preparing the psyche to be harmonious with life. A proper attitude means to think that the world is beautiful and that one is happy to be alive. A pregnant woman should work diligently at her chores and think of herself as strong and healthy. She should not be jealous or envious of others, but she should focus on the beautiful gift of each new day. A pregnant woman should try to avoid things that could cause her mind to be dissatisfied, fearful, unhappy, or "out of harmony".

One of the ways in which Dine' women increase their feelings of harmony is to have a Blessingway Ceremony. A singer, or traditional healer, explained to me that there is a special and shortened version of the Blessingway Ceremony that is particularly suitable for pregnant women; it was once very common to have this ceremony when women delivered at home. Usually the ceremony takes place a month or two before the birth is expected. It is not very common today, as it requires the services of a traditional healer who is paid, and many women feel that they should save their money. The healer further explained that it would be counter productive to desire to have a Blessingway Ceremony and not be able to, because longing for something creates disharmony in one's mind. He indicated that saving money might make a woman feel more content than having a ceremony.

One older woman told me that the Blessingway was like a prenatal check, a reinforcement of positive thoughts. She had never been to a prenatal check herself, but she thought that it must be for the same purpose: to increase positive thoughts and ensure that things go well during childbirth. A woman who had four children and was pregnant with the fifth explained, "I never went to prenatal checkups with the first ones (children). I had a 'no-sleep' (Blessingway ceremony) before each one. But it's too expensive now. I don't know if I'm going to have it this time. I gave materials and a basket (to the healer as payment). Plus you have to pay him fifty dollars, I think it was. I don't know. As long as (the medical provider) is telling me it's going to be all right, I don't think I'll do it." Another woman said that her first labor had been extremely painful; she had the ceremony before the next child was born, and she thought it was worth it because her labor was much easier.

Since many of the Dine' women perceive that the Indian Health Service provides a substitute, they may feel that it is too much of a luxury to have a ceremony. I spoke with women who were content with health service prenatal providers who told them that everything would be fine. If given negative information, however, women told me different stories about their caregivers. One woman, whose first child was a cesarean birth, was told that the next one would be delivered the same way, and she ceased going to the prenatal visits. When she went into labor, she made her husband drive her two hundred miles to another hospital because she felt that the original hospital personnel were not harmonious toward her.

When a Dine' women is obviously pregnant, she must be careful about not tying knots and performing actions that involve binding and lacing such as weaving and saddling horses. Changing Woman is a principal holy person in the Navajo origin story. In the origin story, she gives birth to hero twins; and, at one point, the binding of a doorway blocks her birth. Not all Dine' women have heard this story, but nearly every woman I spoke with had been told about not binding things when pregnant. For example, a young expectant mother was half-finished making a basket when her grandmother made her undo it.

Traditional Childbirth and Postpartum Stories

When giving birth at home, many of the preparations begin when labor starts. The husband, or other helper, brings a log into the home and secures it so that a rope or a woven Navajo sash belt can be suspended from it. The sash belt might also be suspended from the ceiling instead of a log, especially if the home is built of logs. These belts, usually colored red, white and green with designs of Dine' deities or symbols, are worn by the bride in a traditional wedding and are also called wedding belts. An attendant prepares a place for the laboring woman to sit next to the log. If the floor of the home is dirt, he will dig out a shallow circle and may put smooth sand from a stream bed in it to encourage a smooth-flowing birth. If the floor is not dirt, the attendant might create a place by bringing in the sand and putting it on the floor, making a shallow nest with the sand. The sand is covered with comfortable padding from a sheepskin, and finally with clean cloth or sheets.

The husband, or another person, kneels or stands behind the woman and holds her tightly against him with his arms around her and his hands knit together just under her breasts and over her pregnant belly. As the labor contractions intensify, the husband or other holder feels the contraction and tightens his embrace with pressure dependent upon the intensity of the contraction. At the same time the laboring woman pulls on the sash during the contraction. By having both a person hold her from behind and holding herself with the sash belt, a woman is able to stay in an upright, supported position during labor. In addition, the support and warmth of the holder can be felt on the woman's back. In the Navajo origin story there is a precedent of this holding person having good intentions for the laboring mother. Many Dine' women told me that it was important that this person be someone who cared for them. Women said they preferred to have their husbands or their mothers in this position. It is also primarily the husband's role to keep a fire going during the labor. This is done even if the labor takes place in summer, as it is important to keep the laboring mother warm. A wood stove, standard heating equipment in hogans, might contain a pot of water with the inner bark from the juniper boiling on it; this juniper tea could be given to the woman during labor or after the baby was born. The husband cuts juniper branches and keeps them warm by placing them near the wood stove for use after the birth. The woman takes her hair down, removes her jewelry and anything else that might be binding to her. The room is aromatic with the smell of juniper.

If a traditional healer is with a woman during labor, he sings Blessingway songs. The songs of the Blessingway come from the origin stories of the Navajo and chanting them during the labor brings the pregnant woman and her family into a symbolic identification with ancestors, the Holy people, and to Universal forces of Life. In giving birth to a new person, the woman is spiritually joined to both the past and the future. The words and chants of the singer inspire her to feel these spiritual connections. Pollen blessing is essential in every Blessingway ceremony. During labor the singer, if present, dips an eagle feather in pollen and brushes it in a downward motion over the woman. By his words and gestures, called "chasing out the baby", the singer focuses the woman's attention on letting the baby loose. This focusing not only affects the parturient woman, but also the other supportive participants especially the husband who is often holding his wife. The singer does not touch the couple or in any way come between them but seeks to enhance their concentration on the experience and avoid any distraction. The woman is held and supported until the placenta is delivered. She is given juniper tea to help her uterus contract as she rests on her mat. Warm juniper branches are tied around her belly, and she inhales their fragrance for the same purpose. Immediate care of the newborn requires clearing the mucus out of its mouth and nose. This is accomplished by administering small amounts of weak tea or warm water to the baby so that it will spit out, or sneeze. An attendant bathes and swaddles the baby and places it with its head towards the fire. Women said that they would not nurse right after the baby was born because the mucus passages must be totally cleared of phlegm before nursing. If not, they said, the baby could grow up rebellious and demanding, causing his family much grief.

After the birth, the mother is said to be like a newborn herself. Both she and her baby have been described as being soft and pliable at this time. She eats only soft food and does not pull at her skin or scratch herself. Women spoke about being able to manipulate their newborn's features, but also said that it was better to leave the baby alone and let it stay the way it was born to be. Another practice involves putting the baby's first meconium stool on the mother's face; anything from the baby is considered a blessing, and it is said that meconium can remove any dark pigmentation spots (melasma gravidarum) that the mother may have acquired during pregnancy. In 1983, several hospital nurses said that they had observed women doing this, though the practice seemed to be decreasing.

Two Home Births in 1984 and 1989

I was pregnant in 1984 and had prenatal care at an Indian Health Service clinic while living on the Navajo Reservation. My husband and I prepared to have our birth in the traditional way at home. We had a Blessingway ceremony, cut a long log pole, and enlisted the help of his parents to prepare. I told my young doctor what we intended to do, and he agreed to support us by being there. He had a river trip scheduled near my due date and said he would try to get one of the other providers to be available if he was on the river. He later told me that all the providers were fiercely opposed and angry, furious at me for asking for his support and angry at him for agreeing to it.

He talked to the nurse who usually assisted him, and, although she tried to convince me to forget this plan, she reluctantly agreed to help because of her loyalty to the doctor.

At a prenatal visit late in the pregnancy, the doctor said he was leaving for his trip, that I should not worry, and that he would be back before I delivered. I asked him if he could give us one of the sterile emergency childbirth packs, kept in the emergency room, with sterile clamps and scissors. It was against all the rules, but he did it anyway. Two days later, I had the baby.

I went into labor the afternoon, and while fixing dinner several hours later, I had to stop with each contraction. My husband drove to get his parents who lived about 10 miles away on a dirt road. He returned and told me that they were not home, but he left a picture message for them (They don't read). Suddenly worried, my husband began to plead with me to let him drive me to the Indian hospital. I told him it was too late.

Shortly thereafter, his parents drove up, my husband became calm, and everything fell into place. They all worked to help me: they brought in the log, fixed a nest on the floor, built a fire, cut the juniper branches. My mother-in-law held me during labor. To me it felt like times when I was a child and hurt myself playing, and I ran to my mother, and she hugged me and made it better. It was like she hugged away each contraction. The daylight began to fade and the room was warm. I felt I was in early labor and was thinking that I was actually enjoying it, but I knew that I had a long labor ahead of me, based on my previous experience with labor. I got up to use the bathroom; my in-laws looked worried, and I wanted to explain that it would be long time before the baby came. I just said, "It's OK." When I returned, my father-in-law began singing and brushing me with the feather and pollen. All of a sudden I felt the baby descending from me in one huge contraction. I lifted my skirt, and to my own amazement, the baby boy had slid out, was staring at me and crying. The room was a rosy pink color, and it seemed to radiate from the baby, although it might have been the sun setting.

My husband used items in the sterile pack to clamp and cut the cord, discussing it with his mother, "Cut here?" My mother-in-law washed the baby and then used the same water to pour over our two older children's hair, saying that they would not be jealous of the new baby because they were washed with the same water. The nurse arrived just after the baby was born, but there was nothing for her to do.

Four years after his birth, I had my last baby at the hogan we built ourselves. This time it was during a severe snowstorm in January, but family members helped butcher a sheep in the snow and prepare a celebration feast. I was working for the Indian Health Service then and was very selective about the people to whom I told my plans. All my children were there when the baby girl was born. Today she is 20 years old. Twenty years passes quickly. I am a grandmother myself now and reminded of what my husband's grandmother said to us when we were young.

> The old way [of childbirth] was a lot of work. You had to prepare and butcher sheep and give things away. It seems easier to go to the hospital and have them take care of everything. But now I think about how much is given away to make things easier. Families were closer then. The birth of a child was prepared for from the time of the wedding. . .. [Childbirth] was

> regarded as a holy experience. It brought the family together. PHS [Indian Health Service] is good too—in its way, but it doesn't do everything (BB, 1979).

Letting go and forgetting the old ways *is* perhaps a way to take away the trouble that families endured, but it is also letting go of our own experience and our own selves. In childbirth women need something to hold on to for support, both literally and figuratively. Along with family, the suspended sash belt provides both kinds of support. It weaves together the past and the present. A result of Dine' women nurses, sash belts have been added to labor rooms in at least one hospital on the Navajo Reservation. Women nourish the new generation by bringing them into a family that includes many generations of parents to provide comfort, support, knowledge and respect for all that was experienced and endured to create a single baby to carry us into the future.

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Fig. 1

Fig. 2

Childbirth in the Mayan Communities

Linda V. Walsh

Mayan worldview and traditional religion have long woven interpretations of dreams and visions into the beliefs and lifeways of the community members. In the 1950s and 1960s strongly organized evangelical Protestant and conservative Catholic groups attacked dream interpretation as paganism, which led to the formation of distinct factions that devalued the practice. Recently there has been a rebirth of the inclusion of dreams and visions in Mayan interpretation of the world around them (Tedlock 1992:453).

Mayan communities cross borders and currently are found in southern Mexico, Guatemala, Belize, and the western aspects of El Salvador and Honduras. It is estimated that at the beginning of the 21st century, there were approximately 6 million people who identified themselves as Mayan. While Mayan communities share historical, cultural and linguistic heritage, the communities also have many unique characteristics. For example, Guatemala recognizes 21 different Mayan dialects while Mexico recognizes an additional eight. Civil wars that included genocide in Mayan communities have contributed to migration primarily in Central America but also to the United States and Canada. This internal and external migration has further shaped the lifeways in Mayan communities as individuals and families shape their beliefs and rituals in a new cultural environment.

It is within the belief system of dreams and visions that the rituals of childbearing have continued, even in environments in which the Western model of medicine has become the dominant social norm. Recent research in Mayan communities in Guatemala suggests that even when Western practices such as prenatal care and professionalization of the birth attendant role have been incorporated into care, the traditional midwives retain strong beliefs in the power of dreams and visions in their personal calling to their practice and the rituals practiced during the birth process.

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Overview of Mayan Birthing Beliefs and Practices

Mayan religious belief that humans are not only connected to the physical natural world, but also connected to the spiritual world in a very intimate way, contributes to the practices surrounding childbirth. Dreams and visions are seen as a valuable means to gain information about the spiritual world, and are thought to contribute to the intuition or knowledge held by individuals who are chosen to the roles of shaman and midwife. The dreams and visions are considered a sacred space that connects the tangible and intangible world (Tedlock and Tedlock 2005: 34) (Fig. 1).

Fig. 1 Maria Tun, an experienced comadrona. Photo by the author

It is within this worldview that the Mayan-midwife (*comadrona*) is viewed as a sacred specialist during pregnancy and birth. Birth is seen as a critical event in the life cycle of the community, and, as a critical event, the practices surrounding the birth provide a process for the woman and her family to have intimate contact with the spiritual world. Birth of a baby adds a new member to the family and community, and with the birth of a first-born infant, the social status of the parents is altered (Paul and Paul 1975: 717). Birth is physically critical as the mother and infant are both suspended between life and death. Paul and Paul also note that the Mayans believe that the time and circumstances of the birth may foretell the child's future. Specific times and/or days may signify positive powerful destiny or dangerous events. The comadrona is considered a spiritual being who can interpret the birth signs, and hence, foresee the future of the child. For example, a baby born in an intact amniotic sac is believed to be destined to be a transforming witch. A girl baby born with a piece of the sac stuck to her head is believed to be destined to become a comadrona. A similar finding on a boy baby is thought to predict that he will be a "rainmaker", a spiritual being that has a dual life on earth and in the clouds.

Introduction of the Biomedical Model of Care During Birthing

It is estimated that approximately 536,000 women died globally in 2005 because of pregnancy and birth-related causes (World Health Organization 2007). Ninety-nine percent of these deaths occur in the developing world, and at least half of births in the developing world are attended by a person with no formal training. Beginning in the early 1970s, the World Health Organization (WHO) proposed that governmental and non-governmental agencies offer training to the traditional birth attendants (TBA) as a means to address the unacceptably high maternal mortality and morbidity rates (Goldman and Glei 2003: 685). In the biomedical paradigm of childbearing, maternal and infant deaths are seen as commonly preventable, and interventions to increase TBA knowledge and skills are thought to hold the promise of decreasing morbidity and mortality. The Guatemalan government through the Ministry of Health (MOH) initiated a program of comadrona trainings in 1955, although it was poorly supported for several decades. During the late 1980s, the MOH adopted the WHO recommendations to formally include TBAs in the national health care system and increased the efforts to provide training across the country. However, this type of approach has been criticized as a system that does not meet the cultural expectations and needs in communities, and over 10 years of following the efforts has suggested little improvement in the outcome of pregnancy (Goldman and Glei 2003: 698).

Comadrona trainings can range from one-day monthly meetings to a 15-day course taught by a nurse with at least one year's nursing experience. The trainers rarely share culture and language with the comadronas, a problem when one considers that most of the comadronas are older women who understand only limited Spanish (Lang and Elkin 1997: 26). Some successful training programs have

moved away from the formal didactic style of teaching and incorporated role playing and other methods more suited to the Mayan oral tradition. Content of the training programs include hygiene measures for the comadrona (washing hands, wearing clean clothing), danger signs that signal that transfer to a clinic or hospital is necessary, abdominal examination of the position of the baby, and response to selected emergencies such as postpartum hemorrhage. With the emphasis on the biomedical model of care, nurses and physicians commonly condemn traditional practices such as massage and herbal remedies (Goldman and Glei 2003: 685).

Comadrona Beliefs and Rituals

A strongly held belief in Mayan communities is that comadronas are born with the calling to attend women during the birth process – or "receiving infants" as women say. The visions or dreams confirming the calling typically emerge when the comadrona is a mother raising her own children. By age of 35, women are at a point in their own lives to be able to begin practice. With childbearing starting during the teenage years, by her mid-thirties, the comadrona has daughters old enough to assume care of younger children and preparation of meals. In some cases, sons may have married and the daughter(s)-in-law can also assist with household responsibilities (Paul and Paul 1975: 716).

The visions or dreams usually are described as seeing a figure coming down from the sky, often described as Santa Ana (patron saint of comadronas) or figures of dead comadronas calling the woman to the work of midwifery. One comadrona participant in a recent study explained, "I dreamt of a person, one with hair like L's (white) and with a white cape. And I thought about the dream the next day. Possibly it was the comadronas that have died, that are encouraging me to take this job." Another noted, "A person came, a woman bringing children. . . the person bringing the children was Santa Ana" (Walsh 2006: 151). Occasionally a comadrona described a male messenger. "What I dreamed about the most was someone came down from up above, from the air something like a priest holding mass. Always coming down, coming down in the dreams. I was always dreaming that he said 'start with your work, begin to receive children'" (Walsh 2006: 151).

When the comadrona does not heed the calling, she becomes stricken with illness that in some cases threatens her life. When the comadrona consults with a shaman about her illness, the shaman will instruct her to heed the calling, while offering prayers to the saints and spiritual guardians of birth. Often the shaman will also pray in the Catholic Church at the altar of Santa Ana, patron saint of midwives (Paul and Paul 1975: 711). One comadrona described her experience:

> After having four children I got an illness. A lot of fever, very high fever, and diarrhea and fever at the same time . . .It was a signal that I had to start. I didn't get better and didn't get better, so my mother-in-law used a shaman. [The shaman said] 'No, don't be ashamed, that your daughter-in-law [is sick]. It is because she has a job and she has not started to do it. It is because of this that she is sick. And when she is going to start the work of being a midwife, that will go away.' And from then the work started and the illness went away (Walsh 2006: 151).

She explained that the shaman also told her, "It (work as a comadrona) is a gift from God. You cannot go against what God has decided. From here and after now, you can start your work. Within a month a woman will come to you." And she believed it was a true prophecy since one month later a pregnant woman arrived seeking her services.

Signs of the calling need to be visual enough that the comadrona's husband is convinced that this is indeed a divine calling. Because of the work demands at night and in other families' homes, the comadrona functions outside the usual expected behavior of traditional women. Sacred calling exempts the comadrona from usual gender norms in the community. The recognition of sacredness also gives her assurance in difficult situations, be it a difficult labor and birth or problems with the family's acceptance of her expertise. This sacredness of the work shields her from blame when there is a bad outcome. One comadrona explained that she began having dreams calling her into the comadrona work.

> I dreamt of a woman with a black cape like this, or sort of brown, coming down to here, down to the knee here [pointing to her knee] and she said 'Do you agree to work with me?' She told me, 'Because you aren't looking after yourself.' She said, 'We will take away your illness but only if you work with me.' I suffered a lot from headaches. . . I dreamt that like the lady told me 'If you want to work, all the disease will go. If you don't refuse, otherwise the disease will stay.'

She further shared that the woman in the dreams was Santa Ana. While her husband was at first skeptical of her report of dreams, he believed that she was chosen for the sacred work once she started attending births and she was no longer ill.

Woods (1968) notes, "As with shamans, midwives may have a special 'calling' which they are obligated to accept, and they too may possess special objects which symbolize the divine sanction of her office" (p. 136). As noted previously, Mayan beliefs include a strong integration of the physical and the spiritual world. The author's work in a Guatemalan community has found that the sacred calling described by the comadronas often include symbols and objects linked to nature. One comadrona described walking down a path and finding a small stone with the shape of a face. She interpreted the face on the rock to be a sign that she was being called to attend births. Another related, "I picked up a little doll made of stone in the form of a child. This was my first sign that I was to be a comadrona" (Walsh 2006: 151).

The author also had the experience of visiting a comadrona and as they discussed her calling, the comadrona brought out her basket of rocks. She explained, "I picked up some little stones. . . .They represented being a comadrona." She then described a dream that directed her to walk on a particular trail where she would find the stone that would signify her calling to be a comadrona. She followed the directions and found the first of what would become a basketful of sacred rocks. One stone appears to have a face carved on it, but she believes it was not carved by man but rather sent from the spiritual world as the sign of her calling to midwifery (Walsh 2006: 151) (Fig. 2).

Comadronas believe that their knowledge for attending births comes from God and is therefore sacred. One explained:

Fig. 2 Sacred rocks. Photo by the author

> Nobody taught me how to do an examination, no one told me how, but I dreamed how to do this type of examination on women. . . how to measure them with a finger [points to knuckle on her finger that she uses to assess station of the presenting part] and when it gets smaller up here, that's a sign that they are going to give birth.

Another said, "God is beautiful because He teaches everything, when the babies are coming feet first, buttocks first or sideways one has the practice to examine them. God gave me this gift. He gave me the vision to help people, to help the community."

Comadronas also believe that dreams foretell births in the future. One said, "Sometimes you dream that you are out in the market buying only things for the kitchen, pots and baskets and that's the month that more girls are born. And there are some months that you dream of buying a machete, hatchet and all that stuff. . . and sometimes that's when boys are born." Dreams and visions can also include somatic feelings that foretell births. "When my right eye or right arm twitch[es], it will be a normal delivery. If it's the left side, there will be complications." "When my arm twitches, I'll then dream of a birth and the next day I'll hear a knock on the door and someone will call me to attend a birth."

All comadronas interviewed by the author in the course of her research speak to the use of prayer throughout the birthing process. One said, "Always before I leave, I burn some incense at home and pray first before leaving the house." Others describe going to church and lighting a candle in front of the Holy Virgin and praying for a safe delivery. Upon arriving at the home of the laboring woman, the comadronas describe praying before entering the home of the laboring women to assure safe passage of mother and infant. "I always pray before going in with the patient, before

entering with the patient. I haven't touched, still haven't seen anything about the patient so what I do is pray." "The first thing (at my home) is to ask God, ask God that everything will be all right, and when I arrive at the house of the person too." Yet another explained, "When I first get there, I don't touch the patient. No, first I have to pray for half an hour (from the time I leave my house to go to a birth). I am always asking God for wisdom." Another shared that "when I get to the house, always, and when I kneel in the bed with the patient, I pray always to God."

Both family members and the comadronas create sacred space in the home. Small altars may hold candles and incense, providing a quiet place for connection with the spiritual world. One comadrona explained, "Some people have religious pictures and light candles around them. They light the candles so God will help the women and everything will come out all right with no danger." Comadronas buy candles at the local Roman Catholic parish for use in creating the sacred space. These candles are not used for any other household needs. In speaking of the candles, one comadrona noted, "I light a candle, a special candle and pray for the lives of the woman and the baby."

The comadronas believe that God is a very real presence through the birth process. One explained "When I get to the house, I kneel next to the bed and put my hands on her abdomen and begin to pray. After a while, I know God is there and working through my hands because I feel fire in my arms, up to here (indicating upper arms). Fire, I feel fire" (Walsh 2006: 153). Once the sacred space is created, the comadronas blend traditional massage and continued prayer with care practices learned in the training sessions. All comadronas speak of the necessity of determining the baby's position. If the baby is in the breech position ("sitting" in the uterus), many comadronas will use olive oil or cooking oil to massage the uterus in an attempt to turn the baby so that the head is entering the pelvis first. Some comadronas admit to examining the cervix of the uterus to determine progression of labor. Unfortunately, sterile gloves are a luxury and most cervical examinations are done with bare fingers, increasing the risk of maternal infection. Usually there are other female family members present to support the mother throughout the birth. The mother-in-law, the laboring woman's mother, and her sisters are the most common participants. With the births occurring in the home, community members who live nearby care for other children in the family.

Once the infant has been "received," prayers of thanksgiving continue. "I am very happy, and I just kneel again, and as I asked God, so I thank God that everything turned out well." Another comadrona noted, "I have always thought that this (work) comes from God and all births are sacred, and I have to share my work with all the women."

Following the birth, many comadronas continue care in the home for 8 days. During daily visits, the comadrona continues to observe the mother and infant during the critical transition to forming the mother-infant bond. If the comadrona identifies a problem, she will usually recommend that the family agree to a consultation with the local physician. Families won't always follow the advice for a variety of cultural and financial reasons. On the eighth day after the birth in some Mayan communities,

the comadrona goes through a ritual that signifies the end of comadrona's responsibilities. The comadrona bathes the infant (often using an herbal preparation thought to protect the infant), dresses the navel for the last time, and prepares the hammock in which the infant will sleep. Prayers to the spirits to protect the infant are delivered, and the comadrona then puts clean blankets in the hammock and places the infant in the hammock for the first time. Prayers thanking guardians of the birth for the safe passage of mother and infant complete the ritual. The comadrona's rituals serve several functions. They acknowledge the transition necessary for mother and infant as their societal status changes, and they give a sense of control over the uncontrollable (birth and death) (Paul and Paul 1975: 721).

Maternal Beliefs and Rituals

Further research by the author suggests that childbearing Mayan women share the beliefs and the use of rituals with the comadronas. Pregnancy is believed to be a healthy state of being that connects the physical with the spiritual. While Mayan women are increasingly seeking prenatal care in the formal health care system, their strong faith in the sacredness of pregnancy is clear. Rather than actively changing diet, exercise or other routines to increase the chance of a good pregnancy outcome, Mayan women turn to God. One young woman experiencing a first pregnancy noted, "I went to church and asked God for my baby to be born, born like that – normal; to be born well and all that." In response to what she did to have a healthy baby, a 35-year-old grandmultipara (having had 5 or more children) noted, "Just trusting in God. I asked God to give me a healthy baby" (Walsh, in review).

All women interviewed by the author after the births of their infants told similar birth stories. The women described actively praying with the comadrona and other female family members during the labor. One mother delivering her third baby described that she got through the labor and birth with the support of her comadrona and her mother: "They prayed with me. Yes, they prayed with me when I gave birth and after." She went on to add, "I always have God in my heart, and I know that He has to help me." Other women described the comadrona and the mother-in-law kneeling and praying for a safe birth. After the birth, one woman felt she knew that "God was present and that's why the baby was born normal and I had no problems."

Listening to the birth stories, it becomes clear that the Mayan mothers perceive that the comadrona's presence, not any particular care practices (encouraging walking, massage, etc.) was the most important aspect of the care. One said, "She didn't do anything. The only thing she did was to watch to be sure that the birth would be normal." Another mother said, "During the dilating (the comadrona) made sure that the baby was properly positioned. . . that is during the dilation she is waiting to see that the baby will come out okay. That is the only thing – that she was helping so that the child would be born well." Another mother seems to summarize the participants' sentiments well. "The comadrona just watches over the labor so that the children are born well" (Walsh, in review) (Fig. 3).

Fig. 3 Four comadronas at a reunion. Photo by the author

Conclusion

In looking at Mayan practices during childbearing, it is evident that rather than substituting the biomedical interventions during pregnancy and birth, comadronas and the women they serve have blended the traditional beliefs with some, not all, of the practices introduced in training classes. Mayan women, including the comadronas, want to preserve traditional culture while recognizing the sacred role of the comadrona. Once we understand the central role of spirituality in childbearing, we can better understand why women may not adopt certain biomedical approaches to pregnancy and birth. It is believed that the health of the mother and the infant rest in God's hands. Believing this, it is then logical not to intervene to alter God's plan in the cycle of life.

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Converting Birth on Simbo, Western Solomon Islands

Christine Dureau

Since the early twentieth century, Simbo women have given birth in a biomedical clinic, a shift accompanied by remarkable falls in maternal and infant death rates. Conversion to Christianity accompanied this conversion to biomedicine and the two remain deeply entangled. Many women express their ambivalence about these changes in terms of shifting birthing positions from vertical to horizontal, sitting to lying: birthing in the clinic means lying down and exposing oneself to the nurse in contrast to the upright, unexposed position of the past. If the dominant sentiment before this conversion was fear of death, that has been much assuaged, but at the cost of the shame of display and scrutiny.

Simbo is an island (ca.12 sq. km) in the Western Solomon Islands, in Melanesia. About 2,500 people identify as Tinoni Simbo (person/s of Simbo), although many spend decades elsewhere or never live there. People living on the island undertake subsistence horticulture, gathering, fishing and market production. The main cash crop is copra, the dried flesh of the coconut that is used to make coconut oil; some women sell pandanus mats in provincial or national markets and many sell surplus foodstuffs such as watermelons or the eggs of megapode birds that lay their eggs in nests scratched in the warm soil near the island's volcanic vents. Despite such surpluses, the island is not self-sufficient and many rely on temporary wage migration or remittances from migrant kin. Rice and tinned fish are significant expenses; likewise kerosene, fabric and second-hand clothes, cleaning materials for bodies, clothes and houses and innumerable other items. The island has a primary school (school fees and uniforms are a constant struggle), radiotelephone and clinic, where the government provides biomedical healthcare.

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Shifting Positions

In 1903, the first Methodist missionaries reached Simbo. There has been virtually continuous Christian presence ever since and it has been the hegemonic religion since at least the 1930s. Since then, although practices have changed significantly, most pregnant women have presented themselves for biomedical care, except for during WWII.

Two births, 80 years apart, graphically reflect these changes:

> "I was born in the forest before the Light and Cleanliness". Neli was born in about 1910 when the Mission was only tenuously established. Her mother sat on a boulder, banana leaves at her feet, her female cognatic kin encircling her. When she was born, her mother cut the umbilical cord and bound herself in her old loincloth before burying the placenta so the spirits of the dead (*tomate*) would not smell it. Then they moved to the *savo* (postnatal hut) where they were cared for by Neli's female cognatic kin before returning home.

Birth was regarded as luring voracious spirits, endangering everyone in its proximity. Several old women said that others accompanied the mother out of love (*tataru*) and sometimes they helped her from the same sentiment if they were not too afraid to do so. And sometimes, if the woman died or seemed about to die, they fled in terror of the *tomate*. After birth, the woman and her infant lay in the far corner of the savo, a fire between them and the doorway, observing various taboos to ward off tomate. The mother, infant and their attendants stayed in the forest, sometimes for several months, before ritually returning to their hamlet, the first time the baby was seen publicly.

By contrast, Neli's daughter's daughter, Mari, was born in the clinic in 1989:

> Mari's mother, Lida, lay on a delivery table with a pillow under her head while two of her sisters relatives soothed her and helped her hold apart her legs while the Registered Nurse (RN) manipulated her labia to prevent tearing, delivered the baby, clamped and cut the cord with sterilized stainless steel instruments and checked the placenta before discarding it with clinic waste. The next day Mari was inoculated against tuberculosis. Three days later, there was a rush of dysentery cases, so they went home where Lida's sister's daughter came to stay and see to household tasks. Mari and Lida stayed mainly in the house for a month, avoiding the Church, the Minister's house and those of the local *banara* semi-hereditary leaders when they went out. Meantime, many women visited, bringing small gifts of household goods. After about a month, the Minister came and blessed them, allowing them to attend church services. When Mari was six weeks old, her mother resumed gardening, leaving the same mother's sister's daughter to care for her.

This shift from birth in the forest to routine birth in the clinic was discontinuous. Birth and prolonged isolation were initially followed by abbreviated periods in the bush, eventually reduced to about ten days, with women remaining in their own houses for some months. Sometime thereafter, birth shifted to the outskirts of villages in more permanent huts (also *savo*) used by all village women. At this point, as birth moved indoors, women began being attended by missionary women, a change that attenuated the links between childbearing and female kinship and marked childbirth as a domain of expertise. Finally, sometime in the 1960s, birth shifted to the clinic under the control of the RN, by which time it had become acceptable to resume normal activities after about a month.

All births, others than for Seventh Day Adventist women, now follow similar patterns to that of Mari – birth in the clinic followed by periods of "quietness" and respect for the Church and "big people's" houses and being blessed before returning to church and the gardens. Kinswomen express love by their visits and gifts after the baby is born and by helping the labouring woman to co-operate with the RN. Ideally, all first births and complicated deliveries are referred to the provincial hospital in Gizo, but generally the only women who go there are those at risk of severe complications, those having tubal ligations and those for whom it is inappropriate for kinship reasons to be attended by the RN.

Converting Birth

On pre-Christian Simbo, ancestors, sickness, healing, the accumulation of wealth and leadership were intertwined. Rivers (1927: 32), for example, observed "... between the treatment of disease and certain religious practices...a connexion so intimate that the account of medical practice is at the same time an account of taboo". And missionaries linked their campaigns for moral reform to healing and their medical treatments to Christianity, an association reinforced by the colonial administration's policy of leaving medical services almost entirely to the missions. Tinoni Simbo's and Methodist missionaries' worldviews, then, meshed in this understanding of authority, healing and metaphysics, one invoking ancestral spirits as they worked cures and afflictions, the other God as they treated illness (see also White 1991: 252, n. 3).

As was the case with many colonizing groups in the Pacific (Jolly 1998; Lukere 2002), women's bodies became prominent subjects of Western rhetoric, represented in terms of native brutality, superstitious practice and lack of hygiene. As mothers, as suspects in surreptitious contraception, abortion and infanticide, and as the victims of horrendous maternal and infant mortality rates, women became symbolic of the need and potential for inseparable changes in, among other things, medicine and belief.

Childbirth was a particular focus for the dramatic demonstration of Christian power, identified as a site of struggle with the forces of darkness and dirt in the persons of older women and conservative leaders. It became a field of deliberate confrontation. Reminiscing about its early days in nearby Roviana, the Mission historian, Luxton (1955: 37–38) recounts that, in about 1910,

> [A] crisis was precipitated when one of the Fijian [missionary] women gave birth on the station. The heathen custom demanded that the expectant mother, with women helpers, erect a leaf lean-to hut in the bush, and there in the damp and dirt, in the house untouched by man's hands, the babe would be born....
>
> Miriami, the wife of the leading Fijian teacher, did not observe any of these customs, and Mrs Goldie herself carried the new-born babe into a building where a number of natives were at work. On hearing the babe's cry the natives all fled in great fear.... The chiefs were irate at the breaking of ancient custom, the old women screamed their curses, and none would venture near the station for several days.
>
> Two boys only remained on the station [one of them Gombi]....

> Then there came a seasonal epidemic; many natives fell ill, including Gombi. The old women, the witches as they were called,[1] gloated over his illness and awaited the fulfilment of their prophecy of his death.
>
> . . . The missionaries realised that much depended upon the outcome of this sickness, and they nursed him with watchful care and constant prayer. . . .Then Gombi began to recover, the witches ceased to boast, and the village people had reason to discuss and ponder the miracle of his recovery.

There is a constant discursive theme of the Methodist Mission as the harbinger of modernity, and the adoption of avowedly scientific approaches to health was de facto tied to conversion. One must choose between antisepsis and God Almighty or the ancestors and *mana* (efficacy, blessing, truth), and missionaries were certain that their medical mission was crucial to winning converts (see also Digby and Sweet 2002). As with the relationship between propagandistic and charitable work, calculation blended with Christian compassion (Thomas 1990: 159–160, 1992). On the one hand was the explicit possibility of gaining "an entry to the hearts of the natives through their ministry of healing" (*Open Door* March 1923: 2). On the other hand, Christ's miraculous healing provided a model for Christians (*Open Door* December 1922: 11). If missionaries celebrated the strategic value of virtually monopolizing effective medical techniques, they sincerely, I think, lamented the ill health and deaths from treatable disease.

In the early days, death rates remained high (see also Lukere 2002: 111) and the medical skills of some missionaries were problematic. An article in *Open Door*, the magazine of the Methodist Church, for example, recounts that one missionary on Ranongga, trying to alleviate a woman's prolonged labour, gave her castor oil Nonetheless, the mission scored visible successes with many apparently moribund patients. More mundane practices were equally important. Measures such as prophylactic anti-malarials during pregnancy, sterilizing instruments and hand washing cannot but have improved survival rates (see also Hunt 1997). Their success contributed to the success of proselytizing (see also Douglas 1989: 19–20), tying medicine and Christianity in ways analogous to the earlier amalgamation of health and ancestor veneration.

Simbo women stress the high death rates before "lotu. . . made the tomate weak". A Kwaio woman, in the Eastern Solomons, beautifully evokes the combined tragedy and possibility that can inform such religious shifts: "Six of my children had died, and I took another to the mission and she lived. That's why I believed the Christian way" (Keesing 1989: 206). For Tinoni Simbo, too, conversion to Christian medicine was about potency. Missionaries were doubly powerful – as colonial actors endorsed by the administration and as people who manifested power through their sometimes successful combination of prayer and potion. And, as Tinoni Simbo tell today, they converted because lotu was "strong".

Birth in the villages, then, expressed a paired faith in lotu and modern medicine. The mission's consolidation partly relied on medicine's demonstrated efficacy. But the obverse also held – willing conformity to biomedicine was predicated on conversion at a time when medical success was patchy (see also Digby and Sweet 2002). Conformity to mission health and hygiene regimes loosely indexed consent

to mission authority and social reforms, being read as marking the fundamental interior transformation of the true convert. To have faith in biomedical cures when one was seriously ill, instead of going to a healer, to go and give birth in the savo near the village with a missionary woman in attendance, or abandoning the ritual protections of older practices, manifested Christian faith.

Modernizing Birth

This dual faith in lotu/medicine remains central, culturally linking health to righteous Christian living. And women repeatedly bring the two together in their stories and conversations about birth. While there are many strands to these tales, themes of change and position are often paired, as in Neli's account of upright position while giving birth in the forest in the "time of darkness". Her daughter, Lida, who has six children, repeatedly spoke of the contrasting supine position in terms of shame.

> I am ashamed. The men gather in the radio room [also housed in the clinic] and I am shamed that they might hear me. Sera [the nurse] is good, but I am shamed that she sees my genitals. She looks closely at them and I am shamed. Genitals are ugly, they should hide away, but when I give birth I must show the nurse. It hurts, but the shame is awful, too.

Consider also Roda, who had her first child while I was there:

> Christina, I was so *shamed*. I was really shamed. Zima told me to lie on the table and let her *see*, so the baby could come. I *did not want to* [very strong emphasis]—I wanted to hide in the bush like the old women of the time before. . . . I birthed in the deep night and no-one was in the clinic; that was good. Just my mother and the nurse. My infant was born quickly. . . . Zima said I was very fast for the first time. I tell you, Christina, I *pushed* that baby out so I could close my legs. I was extremely shamed.

Roda was unusual in so explicitly comparing supine and upright delivery and I think she did so rhetorically, rather than literally meaning that pre-Christian birth was better. Still, these serial contrasts between then and now, forest and clinic, pagan and Christian, upright and flat cumulatively inform the birthing narratives of women ranging between their early twenties and their nineties.

There is another transition in these narratives. Talk about birth in the forest is permeated by reference to fear of the tomate:

> In the darkness we were afraid. We were afraid of the tomate. The tomate killed many birthing women before lotu came and made them weak.
>
> They were afraid, our mothers. I tell you, Christina, they were extremely afraid. Before we were Christian, the tomate were many and they consumed those people of the darkness. . . . I had my first baby in the forest when the missionaries went away in [WWII] and I was terrified of the tomate. The old women who knew the things of before, they helped. They knew. They sat around me; they made me sit on a rock and they sat around to keep the tomate away. They prayed to God but I was terrified there in the forest, the place of the tomate. The rock hurt my arse, too [laughs] (Zili).

By contrast, younger women rarely link fear with birth, stressing instead the embarrassment of display and examination. Mallet (2002: 136) notes the irony of this juxtaposition of revelation and shame, given missionaries' insistence on covering adult bodies from waist to knee. As she notes, at the very least such interventions reinforced the sense that female bodies were ideally hidden from the view of others. Pre-Christian Simbo women wore loincloths covering their pudenda and buttocks, but all Christian women wear skirts, and usually tops, and follow important conventions about sitting posture, the density of skirt fabrics and rigid norms about exposure. The sense of exposure in modern birth, then, is reinforced by the insistence on routinely covering body parts that were once outside the field of modesty while medically displaying what has always been covered.

Knowing Birth

How might we read the relationship between biomedical birthing and power?

Women have lost much corporeal autonomy. Clinic records affect their future lives, women attend it in the public eye, and earlier methods of fertility control have been lost (Dureau 2001). The clinic setting is redolent of surveillance. Apart from the physiological scrutiny that women describe, the detailed observation and recording is carefully maintained and communicated to the provincial hospital and health department. RNs are also responsible for encouraging conformity to prescribed treatments and the clinic is a site for attempts to reform individuals, via workshops on physiology and general health, policies and recommendations on nutrition, inoculation, family planning practices, etc. Significantly, many clinic projects are successful, limited by resources rather than non-compliance. It might, then, be interpreted as a powerful and persuasive force in Simbo lives, which raises questions about resistance to these long-term interventions.

Rather than developing organically here, medical surveillance/expertise was imported as exotic practice, imposed as a means of controlling converts, proffered as inducement to Christianity and directed at ameliorating truly awful death rates as an expression of Christian love. It also overtly challenged ideas about the body and personhood. Some challenges could be incorporated into local understandings – if "germs" explain tuberculosis or "mosquitoes" malaria, for example, questions about why they afflict particular persons can be addressed in terms of kin and community morality – but others could not. In particular, medicine's operative assumptions about individual subjectivities confront local ideas of personhood. The "self-disciplining subject" (Foucault 1979), absorbing expert rationales and taking responsibility for his own behaviour and wellbeing, is a particular cultural and historical development. On Simbo this *in*dividual remains at odds with notions of persons as dividuals (Strathern 1987), constituted out of their social relationships, susceptible to misfortune caused by other people's immorality and responsible, through their own morality, for others' wellbeing.

People described ill health as having several possible causes – malice, random misfortune, wrongdoing by oneself or others, inadequate Christian practice,

failure to observe basic healthy practices (such as hygiene) and the limited care facilities and erratic supplies. The notion that one will be healthy if she follows the rules of biomedical good health, such as nutrition or exercise, makes only limited sense in a society in which, for example, greed, adultery or other improprieties can cause someone else's death and in which the state cannot supply adequate medical resources. There is only so much one can do, then, to ensure health. That limited amount comes down to a good moral community as much as to conformity to biomedical mores. This failure to inculcate a culture of individual discipline points to the limits of interpreting knowledge/power as all pervasive. If people submit themselves to biomedical techniques, they do not scrutinize themselves in the same ways as in archetypal biomedical cultures.

So, might we read women's discourses of display and shame as suggesting resistance to the authoritative interventions of an exotic health system that violates norms of posture and decorum? I think not. Apart from the problems with simplistic notions of resistance (Abu-Lughod 1990; Ortner 1995), these accounts do not challenge biomedicine's status. As women's frequent questions about Australian medicine suggested, they were more concerned about whether they were getting as much medical care. Their challenges to the clinic centred on inadequacy of staff, supplies or options (Dureau 2001).

Lila Abu-Lughod (1990:314) criticizes those who are

> More concerned with finding resistors . . . than with explaining power . . . [having] a tendency to read all forms of resistance as signs of the ineffectiveness of power and the resilience of the human spirit in its refusal to be dominated. By reading resistance in this way, we . . . foreclose certain questions about . . .power.

To celebrate Simbo women's discourses in terms of resistance might indeed miss important issues in these circumstances of change and cultural exchange. Focusing on the authoritative practices of biomedicine, for example, might pre-empt questions about indigenous power regimes or the awful maternal and infant death rates of an earlier time. This is my reservation about arguments, such as that of Cunningham and Andrews (1997:10, 11), who see biomedicine as "inherently imperialist" because its techniques facilitated colonisation and settlement of tropical areas, historically co-occurred with imperialist expansion and because Western values inform biomedical approaches. I certainly would not contest that biomedicine accompanied imperialist expansion but its history is much broader and it is important to think of this very powerful force for change and conservatism in the context of local conditions (Vaughan 1991; Dureau 2001).

Biomedicine sometimes works better than local healing practices and I concur with Vaughan (1991: 9) in wanting to acknowledge the political, historical and cultural placement of illness while "assuming some material reality to which medical constructs, at some level, refer". On Simbo, biomedicine has been associated with phenomenal declines in death rates. Certainly its normative birthing position is probably counter-productive to the faster, healthier births that might be expected of an upright position. But, even if we read these accounts of shame as challenging birth position, and there is no particular reason to assume that they do, this would

not challenge biomedical authority per se (Osborne 1994). In part it is unchallenged because of its historical placement within Christian practice, in part because of people's awareness that living in a poor country deprives them of many medical resources, and in part because of its demonstrated success. Other than the early overt opposition, biomedicine has been little resisted, at least in the sense of conscious intentional subversion. Repeatedly, people say that it "is strong" and many argue that traditional medicines are not. Where biomedicine may be perceived as oppressive is not so much in its largely unchallenged practices – "we do not sit up and give birth like the old women of the Darkness. We are Christian, now; we give birth in the clinic" – as in its enmeshment with other ideological forces (Dureau 2001). It is easy to turn their modernist values upside down, celebrating all that is "non-Western", slipping into a misleading nostalgia or validation of defiance, irrespective of its costs.

Here Zili's account is significant. In her description of hybrid birth combining old techniques and Christian prayers, she speaks of a forced return to local ways, of terror in a situation lacking biomedically-trained attendants, although surrounded by praying women. At least at this remove, it seems that she very much wanted a clinic, a nurse and antisepsis. The biomedicine practised on Simbo is a particular kind of knowledge/power, but there is more to it. Women conform to a health system that is rough and humiliating, yet there is also a sense of life and survival to be discerned in these accounts by several generations of mothers.

Conclusion

Elsewhere I have criticized romantic visions of Pacific maternity (Dureau 1993, 1998). Here, I extend that critique to readings of biomedical intrusions into indigenous societies as exemplifying a colonial worsening of the human condition. As Abu-Lughod (1990) suggests, such changes often entail transitions between forms of domination. Childbirth on Simbo has been entangled in just such shifts, in the context of a world of advantage and disadvantage, wealth and poverty. This has been a movement from a world in which birth was associated with very high death rates, and seen as so dangerous that it was banished to the bush, and in which political leadership was enmeshed in illness and healing, to a world in which women now forego much reproductive autonomy, in which death rates have plummeted and birth rates risen to the point of being seen as oppressive (Dureau 2001). The changes are graphically expressed in the repeated and opposed images of women lying on their backs, perinea exposed to the gaze and manipulations of medical specialists, and of their great-grandmothers sitting fearfully in the bush hoping their companions would not abandon them there.

Note

1. Old women do *not* seem to have been called witches in Simbo or Roviana. "Witch" and "hag", like the ubiquitous "boy", were colonial trivialisations of the local (see also Laing 2002).

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Childbirth in Australia: Aboriginal and Torres Strait Islander Women

Sue Kildea and M. Wardaguga

Across rural and remote Australia women are being relocated so that they can give birth at regional settings. Many of these women are Aboriginal and Torres Strait Islander Australians, who are birthing alone in a hospital where staff do not speak their language. They may have to wait weeks in a hostel where they are lonely and at times do not feel safe. In many instances they have had to leave their young children behind to be cared for by others; much time is spent worrying about their safety. This situation causes great distress and many believe that it is contributing to the poor health outcomes of Aboriginal and Torres Strait Islander mothers and babies. Relocation for birth is something that has occurred increasingly since the 1970s and now is recommended by the Australian government for all women, though not everyone will take this advice.

The Grandmother's Law

In the mid-1980s in Central Australia, a project was undertaken to talk to the Aboriginal women from the area to discuss their beliefs, practices and preferences around childbirth, also termed "borning". Several hundred women from over 30,000 square kilometres and 60 different communities were involved as well as a conference of over 700 people (Carter et al. 1987). A comprehensive document outlining cultural beliefs and traditions around borning, examples of how current obstetrical practices are almost diametrically opposed to traditional practices and a list of recommendations to improve birthing services was one of the outcomes of this project. The report is titled *Borning: Pmere Laltyeke Anwerne Ampe Mpwaretyeke* (*We Want to Have Babies in Our Traditional Country*)*, Congress Alukura by the Grandmothers Law* (Carter et al. 1987). The desire to birth on country has been reiterated many times by Aboriginal women in Australia and recommended in many government sponsored reports, yet their requests continue to be ignored.

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Aboriginal birthing can be explained in this way:

> "Borning" is not equivalent to Western birthing, but refers to a much wider and more symbolic process. It is inseparable from and integral to the Dreamtime, the Law, the Land and its people. Aboriginal way by the Grandmothers' Law is directed and carried out by Aboriginal women in the security and ancestral tradition and the warmth of Alukura. Only the women participate and assist in childbirth, which they do in a non-invasive, supportive, dignified and knowing way (Carter et al. 1987).

Traditionally, Aboriginal women gave birth in the place where they were born, "on country" with other women by their side (Carter et al. 1987; Callaghan 2001). Young women learnt about "borning" and the "Grandmothers' Law" from the older women during their first pregnancy, labour and birth (Carter et al. 1987). Aboriginal women believe birthing is "women's business" and intricately related to "Aboriginal law" and the "Dreamtime" (Carter et al. 1987). The dreamtime explains creation, and many of the rules and symbols are expressed in the myths and stories that are passed from generation to generation (Eckermann 1995). The process of "borning" is where the spirit of the land and the people come together, and the place where a person is born will then establish her relationship to the land (Carter et al. 1987). The spiritual connection to the land includes a responsibility to the land, and an individual's health will be influenced by her ability to fulfill their obligations to this land and their society (Morgan et al. 1997). Traditionally women would labour with many other women around them for support and encouragement and this does not occur in the hospital setting. In Central Australia, birthing has been described as women's business and the Alukura birthing centre, which was created out of the Borning Report, is still a women's only centre despite some of the younger generation starting to want their partners by their sides during or soon after the birth (Carter et al. 2004).

At this conference in Central Australia someone said, "White people have never asked us where we want to have our babies." They've always said "you've got to go to the hospital" (Carter et al. 1987). Since then many consultations with indigenous women have occurred across Australia with the findings and recommendations changing little over time or across areas. Women highlight the importance of personal safety, both in birth and when awaiting birth in the regional settings (NT DHCS 1992; Kildea 1999; King et al. 1998; Biluru Butji Binnilutlum Medical Service 1998; Fitzpatrick 1995). Women have identified choice, culturally safe birth (e.g. being cared for women and appropriate care of the placenta), having family members with them during birth and their children nearby as important factors that are currently missing from the birthing environment (Fitzpatrick 1993, 1995; Kildea 1999; Biluru Butji Binnilutlum Medical Service 1998; Hirst 2005). Many indigenous women report they would prefer to birth "on their own country" (Kildea 1999; NT DHCS 1992; Fitzpatrick 1995; Carter et al. 1987; Fitzpatrick 1993; Biluru Butji Binnilutlum Medical Service 1998; Hirst 2005). Yet almost 30 years of consultations has seen little change in the Australian maternity care setting. Clearly there is interest in providing culturally safe care as women have been asked what this entails many times. Yet changing the system to meet their needs seems impossible in many instances. This reflects the lack of control that Aboriginal and Torres Strait

Islander women have over their birthing experience. In some areas this results in an avoidance of the system. Women will not attend antenatal care clinics and some will birth at home; in some instances they birth alone and in others they will have many women by their side. Sometimes they call the midwife to arrive just in time to witness the birth or soon after. Our research confirms this is still happening today with 5–22% of women in Australia's three largest remote communities birthing in their home communities. The majority (>75%) are term births.

Molly Wardaguga,[1] a retired Senior Aboriginal Health Worker with many years experience in maternity care, and recognised in her community as a midwife, believes giving birth in hospitals is a frightening and traumatic experience which contributes to cultural decline and putting mothers and babies health at risk (Wardaguga and Kildea 2004). Certainly indigenous Australian statistics are concerning with little reduction in the gap in life expectancy, maternal and perinatal mortality between indigenous and non-indigenous Australians. It is possible that the lack of control over the birthing experience, culturally safe models of care, social support in labour, and, continuity of care all lead to hospitals being "risky" places for some women to give birth. Molly is well known in Australia as a birthing advocate and her keynote address to the Perinatal Society of Australia and New Zealand in 2004 was titled *You Mob Just Don't Listen.* She believes that the only way Aboriginal women will regain culturally secure birthing practices is to bring birth back to the remote communities where Aboriginal women will be in charge.

Molly's Story

Molly is a Burarra Aboriginal woman from Gupanga in Arnhem Land, Northern Australia. She was born in 1938, or perhaps 1941, and has six children and many grandchildren. The following is her birthing story.

> Molly's father went hunting for fish and when he came home he said to Molly's mother, 'I had a dream for you that maybe you will get a little boy or a little girl'. When Molly was born she had four little marks on her tummy and these were the 'fish mark' from when her father caught her. Those marks are still on Molly's tummy today. This story was explained to Molly by her grandmother.
>
> I had a chosen husband but I didn't like him so I told my father I would choose my own husband. The husband I chose was the right skin husband for me. I only had one husband and he had a promised wife but she died. Then in 1958 I had a baby starting to come up. When it was big I had a sort of pain and I told my husband 'I've got lots of pain' and he went down and told my mother, he said 'Molly's got pains starting'. So then they took me down to a bush near the water's edge. My mother was there; my auntie, old lady Mary; my grandmother, my father's mother her name was Mary too but I call her '*maka'*; and Barbara, that old lady who used to belong to tall Frank, his mother. My father had three wives, but only two came. I said to them, 'I've got lots of pain you know' and they said to me, 'you look, that tree over there, that bending one tree, you go there and you have a little swing up and down, up and down'. So I did. Then I was sitting on my feet, all the women were sitting beside me, at my back and some in the front. They were saying, put your feet together, open your legs so the baby can listen and feel the fresh air. They were telling me to open my legs but I was too shamed, I would close them and they would open them again. Then, when the

pain was really bad, my grandmother said I had to break the waters to make the baby come out easy. If you push when it is not broken it is sort of no good, everything might come out, your guts and all. They used to tell us that story, you've got to pinch that water bag, like a balloon, if you don't you will push and push and push and you and the baby will die. They said to me, push and she was telling me to hold my bum together really tight and holding the ground really hard to stop the tearing inside. They were pushing on my back and I was crying and crying and next minute the baby went plop. I was lucky; I didn't tear.

I shocked myself, I tell you. I said to them 'this baby is too skinny' he was sort of like a premature baby and you could see a lot of veins showing like red one, blue one, like a little wallaby. I got a shock. He was too early that baby. The next minute my mother said to me the baby bag was coming out. Then my 'maka', she dug that hole and put that ant pit, the red one in. The women were moving and I was worried and said 'hey don't abandon me' but they didn't. They covered me with a really heavy blanket for the smoking.

I didn't feed my baby (Albert) with my milk, my real mother fed my baby, and auntie did too. He was too small for me. I was too scared to feed that one. After a while when I saw he was looking around, smiling and starting to build up his body, covering the veins up and looking around maybe eight or nine weeks old then I said, I better try to feed him. I had to pinch my nipples to make them small, rolling them like a cigarette, and I had to sit on top of the ant pit to help the milk come. I needed to do this three times. When the milk has stopped if you get on the ant pit you will get the milk to start again. They said to me 'you are going to feed him all day' and I did (Kildea et al. 2004).

History

Understanding the lack of control that Aboriginal and Torres Strait Islanders have over their birthing experience is closely linked to the history of colonisation in Australia. The last 200 years in Australia's history have bought significant changes for Aboriginal and Torres Strait Islander peoples, who are the original inhabitants of Australia (Kleinert et al. 2000). Understanding this history is essential to anyone who is providing health care or services to Aboriginal and Torres Strait Islander people. It is estimated that Aboriginal people have lived in Australia for 40–60,000 years (Kleinert et al. 2000) with some estimations suggesting they may have been here for 120,000 years (Broome 2002). European invasion and colonisation in Australia commenced in 1788 when the estimated indigenous population at the time was at least 300,000 divided across 500 tribes (Broome 2002). The subsequent interaction between Europeans and Aboriginal Australians has been well documented to have had detrimental consequences (Johnston 1991). Epidemic and endemic diseases, neonatal tetanus and septicemia were unknown prior to colonisation with maternal and fetal mortality documented as being low (Callaghan 2001). With colonisation came new diseases, loss of culture and difficulties in maintaining the hunter-gatherer lifestyle. By 1930 the Aboriginal population was reported to have decreased from 300,000 to 60,000 (Broome 2002).

Since colonisation indigenous Australians have been dispossessed of their land and suffered through various policies and legislation that had the intent of destroying their culture (Johnston 1991). Policies included assimilation (1950s–1960s) and integration (1967–1972) and encouraging Aboriginal peoples to adopt European

ways and abandon their culture (Johnston 1991). The consequence of some of these policies were that many thousands of Aboriginal children were removed from their parents (Broome 2002). These children are known as the "Stolen Generations" (HREOC 1997).

The battle for equal rights continues today as years of systemic discrimination and racism led to a "multi-causal cycle of poverty", which was reinforced by a lack of self-determination, access to education, employment, housing and basic health services (Broome 2002). Throughout the 1960s many of the Australian states removed the restrictions that were placed on Aboriginal people and granted them full citizenship rights (Broome 2002). In 1967, a referendum was held and a 92% vote gave Aboriginal peoples the right to be called citizens of Australia and the Commonwealth government power to legislate for all Aboriginal peoples (Johnston 1991). The self-determination policy 1972–1975 has progressed into the self-management policy of today with progress towards these goals agonisingly slow.

Australia's lack of progress towards providing a culturally secure environment for the indigenous population is particularly evident in the area of childbirth (Carter et al. 1987; Maher 1999). The concept of cultural danger is described as occurring when Aboriginal culture, values and attitudes are not recognised and incorporated into the health care arena (Dowd and Eckermann 1992). According to Maher (Maher 1999), where men are involved in the provision of childbirth services, the Aboriginal culture is being breached and this can cause great shame and distress. Shame is a complex and sensitive concept well known to Aboriginal peoples but often misunderstood by health care providers (Morgan et al. 1997; Maher 1999). It encompasses feelings of humiliation and can occur when an individual is singled out or is involved in actions not sanctioned by the group, or those that conflict with their cultural obligations (Morgan et al. 1997; Maher 1999). An example of this is women being attended by men for childbirth procedures. Unfortunately, many hospitals find the provision of female health providers for everything to do with "women's business" as "just too hard" with few incentives provided to try and achieve this. Additionally, most do not offer interpreter services for indigenous languages (though they will have many other interpreters available). It is difficult to find guidelines or policies covering cultural safety in maternity care for indigenous women; and there are limited numbers of indigenous people working in the Health System (NSW Health Department 2000; Kildea 1999; Senate Community Affairs References Committee 1999; Biluru Butji Binnilutlum Medical Service 1998). Even simple things such as Aboriginal artwork on the walls, encouragement of squatting for birth, discussions of how to cut the cord and what to do with the placenta, ensuring all staff have participated in cultural awareness training, are often absent from the birthing environment.

Writings from a remote desert region in Western Australia argue that the birthing experience cannot act as a true rite of passage when women are not surrounded by those who care for her cultural and spiritual needs, even if her physical needs are being met (Rawlings 1998). An example describes the Ngaanyatjarra women who grieve for the way the placenta is handled when women birth in hospitals (Rawlings

1998). The quote below illustrates a similar belief stated by a Yolngu woman, thousands of kilometres across the country in northeast Arnhem Land:

> "Smoking will close up and heal the soreness of childbirth... it should be available in hospital ... the placenta should not be burnt as the mother might then get a sickness in the womb, it is alright to freeze it till it can be buried by the families at home" – East Arnhem Aboriginal Health Worker (Kildea 1999).

Some women believe that when babies and mothers return from the regional centres they return in a weak state and need cultural ceremonies such as the "smoking ceremony" to be performed to make them strong again (Carter et al. 1987).

The Smoking Ceremony

The smoking ceremony is a ceremony that appears to have similarities across indigenous Australia. It is used to strengthen both the mother and the newborn following birth and is also used in some areas to stimulate breast milk production, decrease bleeding and to treat infection. In some areas it is a ceremony for women only and in others it will involve all family members. Though not all babies that are born in hospital return home to a smoking ceremony, certainly some still do, more so in remote regions of Australia. Many of the older women believe that this ceremony should be reintroduced routinely to strengthen the babies following a hospital birth. The description below gives an overview of how it is performed in one area.

> This is a ceremony that is for women only. They would make a big hole (as big as a basketball) and they would make a fire, a really big fire. You have to be careful what tree to use as the wrong wood can cause swelling; usually they use a hardwood tree. Then they used an ant pit (any one – the red one or the orange one) and they would break it into small pieces and put it in the fire. When the fire has turned to ash and the ant pit goes really red then it is ready, they get it and put it in the hole. Then they get the lady who had the baby, she holds her baby and they cover her with a mat or a blanket and she squats over the hole. She gets really hot but she has to do a little wee in there and it makes the steam come up really high – and she has the baby with her too. She smells the smoke and when she is finished she gives the baby to someone else and she sits by herself for about 15–20 minutes and then gets out and the heat goes down and cools off. She does it in the night, sometime 3 or 4 nights she might do it. (Nancy, Marie, Margaret, Molly, Theresa, Nellie and Alice) (Kildea et al. 2004).

Risk

Aboriginal and Torres Strait Islander women are often considered "high risk" by maternity service providers and in some areas of Australia their indigenous status alone automatically places them in the high risk category. This usually results in exclusion from midwifery-led care and birthing centres which is quite ironic considering they have a larger percentage of normal births than other Australians (70 vs. 58%)(Laws et al. 2007). Yet risk to Aboriginal and Torres Strait Islanders is

a holistic concept incorporating many other facets than those that are measured by maternity service providers. Some women perform their own personal risk assessment and decide that the risks to their families and themselves associated with having to leave home for birth are more of a concern than the obstetric risks. These women may not receive Western antenatal care for fear of being identified as pregnant and being forced to leave town. Some will consent to travel to the regional centre but return to their communities before birth (unbeknown to the service providers), and arrive at the health centre in strong labour when it is too late to be transferred out.

Many still believe that failing to observe the relevant rituals and laws during pregnancy and birth presents a grave risk to the health of both the mother and baby and the long-term health of the people. Some women identify giving birth in the hospital as the cause of infant mortality. As a result of not being welcomed properly into the world, and not performing the appropriate ceremonies, the baby's weakened spirit gets sick (Mills and Roberts 1997). This was also highlighted in research on "Antenatal and Birthing Issues for the Women of Warburton" titled *Ngaanyatjarra Tjukurrpa Minyma Pirniku (Ngaanyatjarra Stories for all the Ladies)* that occurred in the Ngaanyatjarra Lands Indigenous Protected Area in the Desert area of Western Australia where approximately 2,500 people live across 9.8 million hectares in 11 communities.

> The major themes that emerged from the interviews revealed ways in which the western medical model often breaches Ngaanyatjarra cultural norms of pregnancy and birth. Furthermore, traditional methods of knowledge acquisition have been broken without adequate replacement. The result means that older women hold traditional knowledge, but do not understand contemporary western medical practices. Moreover, middle aged and younger women perceive that they have neither. The participants in this project acknowledge the benefits of western medicine, but envisage that the western model can be adapted to incorporate cultural requirements without compromising the health and safety of childbearing women (Simmonds 2002).

Birthing Practices

Birthing practices across the world vary markedly amongst different groups of people (Jordan 1993). Variation in the rituals and beliefs around pregnancy, childbirth and the postnatal period, amongst and at times within different language groups, has also been described in Australian literature documenting Aboriginal birthing practices (Kildea et al. 2004; Callaghan 2001). Although there are many similarities in birthing practices across the country there are also distinct differences highlighting the fact that birthing is a unique experience for all women and generalisations should not be made about what an Aboriginal or Torres Strait Islander woman believes, wants or needs for culturally secure care. Research in the Maningrida region of Arnhem Land during 2001–2004 highlights this and will be described below with other Australian stories interwoven to demonstrate practices.

The township of Maningrida is situated on the northern coast of Australia in Arnhem Land, which was declared inalienable Aboriginal freehold land in the 1930s (Hall and Bawinanga Aboriginal Corporation 2002). Today Maningrida is a one-hour flight from Darwin, a capitol city and approximately five to seven hours drive when the roads are open in the dry season. It is impossible to access by road during the wet season, which usually occurs between December and April each year. The traditional culture and land ownership values of the people in this region remain very strong today (Hall and Bawinanga Aboriginal Corporation 2002). Maningrida is one of the largest remote Aboriginal communities in Australia, consisting of the town centre and approximately 36 outstations, many of which are occupied year round. The population of the region is approximately 2,200 people and up to 800 people live on outstations during the dry season. Despite being a very small community, Maningrida is thought to be one of the most multilingual communities per capita in the world (Carew n.d.) with 14 different languages endemic to this region and 51 different languages spoken there (Handelsmann 1996). Many people speak several of these languages and English is often their third or fourth language.

Conception

In many of the areas conception would occur following a husband's dream.

> From long time ago, always the husband would dream and tell that lady that she is going to have a baby but that doesn't happen any more, not these days. (Charlie)

And there was also bush medicine available for both assisting and preventing conception.

> Here in Maningrida to stop getting a baby you use the long yellow trees. You cut the branches off them and then you cut across the branches put them in water or a cup of tea and you drink the water and then you won't get babies, in our way. Some mothers do that. If you want babies there used to be places you go to drink the water but they don't really do that anymore. (Tinica)

Pregnancy

During pregnancy women described the role of the older women in the community as checking on how the baby was lying and massaging to ensure it was in the right position. Women demonstrated how they would turn the breech with massage if it was needed.

> You know when that baby's up the wrong way they try and twist them. The old people and the bush doctor even if he is a man he can still do that, twist it, twist it, little by little until it is straight. Push it, push it and they can make it straight. (Charlie)

It was well known that breech babies did not always survive. However there were some who told stories of breech babies being born without any problems with

women stressing that they should be born slowly without interruption or assistance "not like in the hospital where they rush everything."

> When they come feet first the birth is the same way, just nice and slowly that baby has to come out. Not like in hospital where it has to come out quick, here it has to be slow. (Lena)

Labour

Women described lots of different methods that were used to assist women in labour, particularly older woman behind to support and massage your back (Kildea 1999). Some women described labouring and birthing alone, away from the main camp area, which has been described in other areas (Hamilton 1981; Rawlings 1998). Others were surrounded by many other women and some had their husbands and only their husbands present.

> My husband was with me for all of my babies. Some husbands will stay together with their wife and some will want to sit by themselves or go hunting. Some will see the birth with their own eyes. (Barbara) (Kildea et al. 2004).

Other documentation of men at birth comes from northern Queensland, where the Yaroinga people encouraged the father to watch the birth (Callaghan 2001).

In all instances it would seem that the place of birth was away from the main camp. A common statement was,

> Nobody helps the baby come away, they don't touch it, just leave it. The mother has to push to do it, the mother has to do everything for the baby to get it out by itself. (Elizabeth)

Women are concerned that the traditional upright positions for birthing (in many instances squatting) were not encouraged in hospital. Women report "too much shame lying on your back with your legs open". Women felt that it was better to birth the "Aboriginal way" which often involves sitting on flexed legs with their heels under their bottoms and their knees spread out. They said that this was better for the baby to come out straight and down and the women do not feel as vulnerable in this position. Women are also encouraged to control the passage of the head and protect the perineum by squeezing their buttocks with their heels. Descriptions of hanging onto low branches and swinging or squatting in labour have been recorded from areas across the country.

> When Mary had her first baby she was by herself until the very end. She was rubbing her tummy by herself. Her mother had told her when she had a lot of pain she could make the baby come out quickly by going to a tree in the bush. She should get a branch of the tree and pull down on it and swing on it, swinging up and down, not backwards and forwards, but up and down. She was only a young girl, only 12 or 14 years old and she was crying from the pain when she was swinging on that branch. When she was really paining her mother told her to put her finger inside to make her waters break. Then she started to push. When the baby was born they measured the cord down the leg and cut it using a mussel shell. After the baby was born she felt tired from all of the pushing. She wanted to have a rest and a sleep and let someone else look after the baby. When the cord dries up and falls off itself they will get a piece of string and carry it around their neck till the baby starts walking.

> Then they will give the cord to a special man in the family and when that child is about 12 or 14 the special man will come . . . and give the cord back. Grandmother and mother will tell him those men will come for you and will have something special for you and they will be dancing. (Mary).

The baby would be born onto paperbark or warm sand and never touched till it was completely out. Various things would occur with the cord. Some measured it down the leg and then cut it with shells, long fingernails or a sharp stone. Several women described the birth of the placenta as needing the woman to lie down whilst another pushed on her stomach with her foot, with hot sand used to soothe the mother and the baby. Not one person described problems with bleeding postnatally and noone could remember a maternal death occurring apart from one that occurred in hospital during the study period.

In most Australian documents the care of the placenta was important. It was often put in pandanus[2] and then put in a tree where the green ants would eat it. Many women said they felt that the placenta should come back home with the women that birth in town for proper disposal; yet despite their requests this does not occur. Airlines have strict rules for carrying blood products and this barrier has not been overcome. Even in areas where women return home by road they do not have the return of their placentas facilitated.

Stillbirth

Different practices were described for women who had had a stillbirth. Sometimes they buried the baby immediately, and sometimes

> They used to cover the baby with bush material, like paperbark, and put the baby in the sun high up on a shelter. In the evening they would make a big fire underneath, burning till daybreak, to protect the baby and stop the birds from coming. The families would stay there all the time. Then after three to four month's time they check the baby to see if the baby is all dry and then they have a big ceremony. They wrap the bones in paperbark or calico to carry them around or hang them up. Then they can all go back home and after one more week they put the bones in the hollow log and they have a big ceremony and sing all night. (Margaret)

Birthing on Country

At present, there is a lack of choice or control for most Aboriginal and Torres Strait Islander women regarding their birthing options, and those available are often unappealing as the services are not responsive to their cultural needs and separate families during the birthing process. The desire for birthing services in remote communities has been repeatedly requested by Australian indigenous women from 1987 through to 2008 (Banscott Health Consulting Pty Ltd 2007; Biluru Butji Binnilutlum Medical Service 1998; Carter et al. 1987; Hirst 2005; NT DHCS 1992; Fitzpatrick 1995; Kildea 1999; King et al. 1998; Senate Community Affairs

References Committee 1999). Many believe that if established properly we would see improved maternal and newborn health outcomes, as has occurred in remote Inuit communities (Van Wagner et al. 2007). The voices of indigenous Australians, paradoxically given the amount of consultation that has been undertaken, have been unable to effect significant systemic changes to birthing services across the country. In Australia today it is still too often non-indigenous people who influence policy and service delivery for indigenous Australians.

Note

1. Sadly, Molly passed away in May 2009 and did not see the return of birthing to her community.
2. Pandanus is one kind of Old World tropical palmlike trees having huge prop roots and edible conelike fruits and leaves like pineapple leaves. Fiber from the leaves is used for woven articles such as mats.

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Molly Wardaguga, Retired Senior Aboriginal Health Worker, Founding Member Malabam Health Board, Maningrida, is a Burarra Aboriginal woman from Maningrida in Arnhem Land, Australia. Though now retired, she has been an Abo-

riginal Health Worker for over 40 years. Molly has been the midwife to many women in the community, in the traditional way out of the health centre and in a more Western way in the health centre. She had 6 children and was taught the beliefs and rituals around pregnancy and childbirth from the older women in the community. She learnt about the western practices when she did 3 months midwifery training in Darwin hospital. Molly has worked on several research projects in the community, aiming to improve the health of childbearing women. She is a Chief Investigator on a 5-year National Health and Medical Research Council grant to strengthen maternity services for remote dwelling women. Molly believes women should be able to birth in their own community where many of the cultural practices that keep the women and babies strong could be reintroduced. In 2004 Sue Kildea and Molly were awarded the University of Technology, Sydney Human Rights Award for their contribution to advancing reconciliation between Indigenous and non-Indigenous Australians. Sadly Molly passed away in May 2009 and did not see the return of birthing to her community. Others are continuing to fight for this right in her name.

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