Birth by Design

Pregnancy, Maternity Care, and Midwifery in North America and Europe

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Routledge
New York London
Danger has always attended childbirth. Among the many complications of pregnancy and delivery are hemorrhages, obstructed labor, infection, toxemia, and unsafe abortions (Adeyi & Morrow 1997). Fetal/neonatal problems include asphyxia, neurological problems, infections, and prematurity (Stalnaker et al. 1997). Before maternity care was moved into medical institutions, pregnancy and birth were widely regarded as dangerous events. Midwives and other women attended births at home and did what they could to alleviate the laboring woman’s pain and ease the passage of the baby, but morbidity and mortality were a pregnant woman’s constant companions (Arney & Neill 1982).

By the early twentieth century, obstetricians had replaced midwives as birth attendants in the United States, and a new view of the dangers of birth was emerging. As childbirth moved from a domestic to a medical event, obstetrical dangers became institutionalized within a growing body of medical knowledge. Danger was transformed into biomedically constructed and sanctioned notions of risk. This was more than a mere semantic shift: “Danger” implies a fatalistic outlook on birth, “risk” implies an activist stance. New medical definitions of risk require that childbirth be accompanied by medical technology, monitoring, and oftentimes intervention (DeVries, 1996).

In this chapter we explore how modern medical systems turned the “normal” complications of birth into quantifiable “risks” measured by diagnostic technologies. In addition, we examine how the new vocabulary of risk creates the possibility of legal actions against care providers in the form of medical malpractice suits. Our main focus is obstetrics in the United States—where these developments have been most visible—but to place notions of risk and malpractice in a larger social and cultural
context we also consider the situation in Sweden and the Netherlands, two high-income countries with different ideas about birth and technology.

The Construction of Obstetrical Risks from Childbirth Dangers: The Case of the United States

Contrary to common belief, risk is not a value-free assessment of the possibility that certain dangers will occur (see Douglas 1992; Hall 1989; Skolbekken 1995). Rather, risks are specific dangers that a particular society chooses from among all possible dangers that exist. Risks may not represent the most likely dangers or even the most fearsome dangers faced by a society. Risks are dangers believed to be most immediate or—as in the case of obstetrics—dangers that practitioners believe that they can or must control. How is an obstetrical danger transformed into an obstetrical risk?

The first step in the social construction of obstetrical risk is the selection of a particular danger from among the many dangers that attend birth. Most often a danger becomes visible or measurable through the development of a new technology. Once captured by the biomedical gaze, the problem lies under the purview of obstetrical practice and ways are found to quantify and treat it.

The danger must be made visible (through technologies of visualization) or quantifiable (through technologies of measurement) so that the effects of treatment can be assessed. The presence of an obstetrical risk must be verified by output from a diagnostic technology that can register both the normal and the abnormal and show progress between the two states. When the numbers fluctuate outside the more or less arbitrarily defined limits of “statistical norms,” practitioners must either treat the condition or be able to justify why they are withholding treatment. The power of medicine is thus enacted: Risks are identified and can be controlled only through medical surveillance and treatment.

Skolbekken (1995, p. 298) argues that preoccupation with medical risk as a statistical and scientific construct emerged from the development of computer technology that allowed large-scale data analysis. Statistically represented possibilities generated by these analyses created an ideological background that supported the use of more and more biomedical technologies. Measurable risks implied the need for risk reduction and gave practitioners a way to assess their success in doing so.

When practitioners accept a particular risk discourse they must convince their patients that the dangers seen and measured by technology are real. In the United States most women unquestioningly accept this medical point of view. The few birthing women who refuse to believe that birth is fraught with risk—who break medical protocols and sign themselves out of hospitals, “against medical advice”—are seen as challenging the authority of medicine and medical institutions. Douglas (1992, p. 29) comments: “[risk is not about] the reality of the dangers, but about how they are politicized. The debate always links some real danger and some disapproved behavior, coding the danger in terms of a threat to valued institutions.” Birthing women who resist institutional values are often forced to comply in the name of the “welfare of the infant.” When a mother shows a reluctance to accept official protocols, she is often reminded about the “risk” to her baby. When a practitioner states
that an intervention needs to be done "for the baby," it is extremely difficult for the mother to disagree. (Browner & Press 1997).

We must note that medical personnel in the United States do not always accept standard notions of obstetrical risk. Like their fellow citizens, American physicians value their independence: Rather than practicing along the lines of institutionally set protocols, they tend to practice with their own styles—styles based on their training, their years of experience, their intuition, and what "feels comfortable." The recent call for practitioners to engage in "evidence-based practice" challenges this "medical individualism." Evidence-based practice asks practitioners to operate at "proven" levels of competency (and social conformity), rather than at their "comfort levels."

The call to be more "scientific"—to use the latest protocols and to purchase the newest equipment—suggests the existence of fundamental disagreements in obstetrical "standards of care." King and Kovac (1996) discuss the example of practice standards for vaginal birth after a cesarean section (VBAC). When a woman with a scar from a previous cesarean section is laboring, there is always the risk, although very small, that the old incision will split apart during contractions or during the pushing effort. This is a very rare but devastating occurrence for the mother, the baby, and often for the physician, especially if he/she is subsequently called into court for the resulting death(s) or disabilities. The Prevention Task Force (King & Kovac 1996, p. 232) states that a "trial of labor" should be given despite these practitioner fears:

Because of its proven safety and efficacy, trial of labor (in women with previous cesarean sections) has been supported by many third-party payers, preferred provider organizations, and health maintenance organizations. This approach attempts not only to control spiraling health care costs but also to increase corporate profitability. Recently obstetricians have begun to be graded with regard to their clinical performance, cesarean section rate, trial of labor attempts, and successful vaginal births. It is anticipated that insurance plan participation and credentialing will soon be based on some of these factors.

This new standard of care is driven by third-party payers and health maintenance organizations and is mainly aimed at cost-containment and corporate profit. Here we find practice standards based not just on (perceived) safety, but on cost and conformity to the (more or less informally established) notions of acceptable ways of practicing obstetrics.

This discussion demonstrates that obstetrical risks in the United States are produced in a complicated environment that includes biomedical technologies, corporate interests, and an amalgamation of fears and feelings of vulnerability among both patients and practitioners. In the United States, with its highly medicalized views of birth and a competition-based health care system, "risk surrounds practice, it is in the background, there is an atmosphere; it is always there" (Annadale 1996, p. 420). Providers practice in a climate of risk, institutional demands, and—as we discuss in the next section—a threat of malpractice suits. The most common response to this situation is the creation of protocols and hospital rituals designed to reduce risk, even in the absence of data supporting their routine use.
Risk and the U.S. Legal System

The transformation of the "dangers" of birth into "risks" has given the medical profession control over maternity care, but it has also had at least one important negative consequence: the rise of malpractice suits. "Risk" implies the possibility of control. A woman who is encouraged to give over the management of her birth to obstetrical supervision to minimize risk is bound to be upset when these risks are not controlled. A physician who promised to manage risks is seen as a failure when the outcome of birth is poor; the response to this broken promise is often legal action. Malpractice suits are the shadow side of risk control.

When a medical malpractice lawsuit is filed in the United States, the practitioners' behavior is measured against a legal yardstick known as the "standard of care." The standard of care is defined by statute or by case law. In either event, the test is relatively uniform throughout the fifty states. The following excerpt, taken from the statutes of the state of Florida, is typical:

Medical Negligence; Standards of Recovery (1) In any action for recovery of damages based on the death or personal injury of any person in which it is alleged that such death or injury resulted from the negligence of a health care provider as defined in n1 s. 768.50(2)(b), the claimant shall have the burden of proving by the greater weight of evidence that the alleged actions of the health care provider represented a breach of the prevailing professional standard of care for that health care provider. The prevailing professional standard of care for a given health care provider shall be that level of care, skill, and treatment which, in light of all relevant surrounding circumstances, is recognized as acceptable and appropriate by reasonably prudent similar health care providers. (www.floridamalpractice.com, accessed May 24, 1999).

The statute establishes the test as care judged to be "appropriate by reasonably prudent similar health care providers." In reality this standard tends to demand that the practitioner employ the most sophisticated technology and the most recent advances of medical science. Anything less can be made to look shoddy in a courtroom by a seasoned medical malpractice lawyer.

In the 1980s, the United States experienced a large increase in the number of liability cases. A study of sixteen states found that there was a 58 percent increase in such cases between 1975 and 1997 (Glaberson 1999, p. 6). The medical specialty that was hit the hardest by the increase in liability suits was obstetrics. In the early 1970s, obstetrics was the source of only 2 percent of all medical malpractice claims in the United States; by 1985, the number had jumped to 10 percent (DeVille, 1998, p. 206). The combination of increased medical malpractice lawsuits, increased insurance premiums, and a few excessive jury verdicts converged in a perceived "crisis" in tort (negligence) liability suits. There are those who challenge the notion that the United States is plagued by a malpractice crisis. It is fashionable to claim that the high cost of health care in the United States is the result of malpractice suits. But, in fact, medical malpractice suits are not that common. Only a small portion of the money paid out on malpractice claims ends up in the plaintiff's pocket. Most of the settlement goes to insurance companies and lawyers (Starr 1992, p. 21).
These findings suggest the costs of medical malpractice are borne by patients rather than by practitioners or insurance companies. These facts demonstrate that malpractice litigation is not a major source of the cost problem in the American health care system. However, fear of lawsuits (even if unfounded) does impact practitioners' use of technology and diagnostic testing as protective devices (Annadale 1996, p. 434).

U.S. obstetricians can expect to be sued eight times during their careers for "less than optimal" outcomes (Schifrin et al. 1985). Not surprisingly, practitioners fear those few times when something does go wrong with the mother or baby, a fear that is compounded by the "statute of limitations" in the United States that allows cases to be litigated anytime during the twenty-one years following the birth of the baby. For U.S. practitioners, then, the issue of safety in childbirth is enmeshed in a legal system looking to blame someone for a "bad outcome." In an effort to protect themselves, care providers practice "defensive medicine"—that is, they use all available technology.

**Technology and Risk**

The activism implied by the view of birth as "risky" has led to the routine use of sophisticated technologies in U.S. hospital births. Obstetrical risks and legal fears are kept at bay by a plethora of technologies whose presence is ever-more-standard and ever-less-questioned on hospital labor and delivery wards. Most U.S. women have their labor monitored by electronic fetal monitors, are given epidurals to reduce pain, and have episiotomies to aid in the delivery of their child. They have come to believe that the use of these technologies is necessary to reduce the risk of harm to themselves and their babies. Once technology becomes available and widely used, it is difficult to move backward to less technology and intervention (Bortin et al. 1994, p. 46). However, as DeVille (1998, p. 201) has noted, there is an irony here: Once a "particular technology is performed frequently and both the profession and the public believe that it generates predictable results and substantial benefit" the rate of lawsuits increases. The fastest growing area of medical malpractice allegations in the United States is the failure to diagnose an existing illness or injury. Further, failure to diagnose and promptly treat fetal distress is the most common claim in obstetrical malpractice cases (Mackauf & Tesse1 1997).

The routine use of electronic fetal monitors (EFMs) in the United States is a visible reminder of this situation. In order to try to decrease the chances of something going wrong during the labor and delivery, the woman's contractions and the baby's heartbeats are continually monitored and displayed. Practitioners watch the fetal monitors and comment on the woman's progress and on possible interpretations of the EFM tracings. Based on interpretations of the fetal heart tracings, delivery is expedited with the use of vacuum extractions, forceps deliveries and cesarean deliveries. In the United States, fetal monitoring is required by hospital protocol in certain situations, such as pitocin inductions. Women are required to maintain uncomfortable positions so that the machine can monitor the baby's heartbeat and assess if it is being stressed by the pitocin-induced contractions. In a recent study by Howell-White (1999, p. 74), 92 percent of women who chose a hospital birth attended by an obstetrician had intermittent EFM, and 69 percent had continuous monitoring. Inter-
estingly, studies of EFM have shown that “neonatal outcome has not been improved in low-risk populations” and that the EFM “seems to be of no benefit in the general population” (Benson 1994, p. 55).

“Sitting on a bad strip” (holding off on any clinical action) can be a nerve-wracking situation where a practitioner’s credibility can be called into question. The course of action or inaction chosen may result in criticism by other practitioners or in future litigation on the part of the patient or her family in the event of problems surrounding the birth. The threat of litigation is sometimes described by doctors, nurses, and midwives as constantly “hanging over our heads” (Annadale 1996). As one nurse-midwife interviewed for this project reflected:

My fetal monitor assessment and my level of concern is so different than most of the people here (at a large teaching hospital) because after sixteen years of seeing “worrisome strips” and babies with Apgars of 8, 9 (sign of a healthy baby) I understand very well the problems with fetal monitoring. But what sends chills up my spine is sitting on a strip and knowing that other practitioners are peeking at the strip in the doctor’s lounge and saying “What’s goin’ on here? What is she doin’ here?” (personal communication with a certified nurse-midwife)

Practitioners’ fears are reinforced by biomedical technologies that are sometimes ambiguous, but accepted as indicative (with varying degrees of confidence), of serious or even life-threatening problems.

From the consumer’s viewpoint, new drugs and technologies carry with them new hopes and expectations. In many U.S. hospitals epidurals are used in more than 90 percent of births (Romm 1998, p. 84), attesting to the cultural acceptance of medicalized pain management and the belief of women and practitioners that the pain will be too much for women to bear. Glass (1998, p. 46) has noted that the desire to be “numb” during childbirth seems to cut across race, class, and age. It seems that labor pain is nearly too overwhelming an experience, one to be avoided at all costs. However, heightened expectations often lead to frustration and resentment when technology fails or “bad outcomes” occur. Any intervention carries with it associated risk. For example, the use of epidurals to reduce the pain of childbirth can lead to complications ranging from failure to relieve pain to cardiac arrest and fetal distress (Cunningham et al. 1996). Each of these complications brings with it its own unique “corrective scenarios,” each requiring the use of additional technology. The following is a description of one such scenario that could be triggered by the placement of an epidural:

A “severe” deceleration of the fetal heart rate is noted (on the monitor screen). Immediately several practitioners rush towards the patient’s room. The door flies open. Doctors and nurses begin treatments based on previously established protocols. Adrenaline pumping, they perform vaginal exams to check for a possible prolapsed umbilical cord, change the mother’s position to maximize blood flow to the uterus, place internal monitors for increased accuracy of pick-up as well as a host of other actions. If none of these measures is effective at restoring a normal fetal heart rate, an emergency surgical delivery is performed (Cartwright 1998, p. 246).

U.S. women expect epidurals to work and, when they do not, it is especially difficult for women to cope with the pain that they trusted the anesthesiologist would be
able to "cure." In reality, this technology, like all other technologies, is not infallible. Initially convinced that only the epidural can cure the pain of contractions, it is very difficult to get a woman to take control over her own pain when the epidural fails. In addition to these risks, recent research implicates epidural analgesia with prolonged labors that may lead to increased rates of cesarean deliveries. Alexander et al. (1998) compared the progress of labor in a homogenous cohort of women and found that first and second stages of labor were prolonged in those women who received epidurals, in comparison to the control group that received the intravenous drug meperidine (Demerol). For this latter group of women, time from their hospital admission to the point of delivery of their baby was, on average, two hours shorter than for the women that received epidural anesthesia. When labors are prolonged there is, of course, more time for the practitioner to feel the need to intervene: "When poor progress in labor is combined with nonspecific though nonreassuring FHR (fetal heart rate) tracings, there is additional motivation to choose cesarean birth" (Porreco & Thorp 1996, p. 372). Thus, the technology of fetal monitoring interacts with the technology of epidural anesthesia, sometimes providing safety and comfort for the woman, but other times creating more physiological problems and even increased operative deliveries. While generally deriding the common use of fetal monitoring, U.S. obstetrician Michael Benson (1994, pp. 55–56) points to the need for monitoring because of the increased use of labor interventions and the absence of current knowledge about how to monitor the fetus without technology.

As we point out in the next section, the relationship between technology and risk must be understood in its social and cultural setting. In the United States, where practitioners, insurers, and hospitals are all competing for patients and profit, "choices" in childbirth are often illusory. Physicians have so convincingly sold themselves and their services as the only "safe" choice that consumers blindly believe that medical science will do no harm: "Technology encourages us to think differently about pregnancy" (Katz Rothman 1993, p. vii). Once certain diagnostic tests (such as ultrasound and EFM) become widely used, refusal of such technology implies a lack of responsibility and caring on the part of the mother (Brown & Press 1997, p. 127; Corea 1985). Such a belief system about safety and technology is manifested in malpractice suits when things go wrong.

Although the malpractice “crisis” in the United States is exaggerated, it is clear that malpractice litigation—especially against maternity care providers—is more common there than in other high-income countries. We can better understand the U.S. case by examining maternity care and malpractice litigation in Sweden and the Netherlands, two high-income countries with procedures for accomplishing birth that are quite different from those found in America.

**Obstetrical Care and Malpractice in Sweden and the Netherlands**

We begin our comparison by looking at maternity care in Sweden. The underlying philosophy in Sweden is that “[health] care is of prime importance in a modern welfare state and should be accessible to everyone regardless of his or her economic situation” (Giesen 1988, p. 541). The twenty-six County Councils of Sweden are responsible for public health care services for the inhabitants of their region. Virtu-
 Ally all Swedish women deliver their babies in hospitals but are attended by nurse-
midwives rather than family physicians or obstetricians. Swedish women usually see
the same midwife during the pregnancy and then are attended in the hospital by staff
midwives (McKay 1993, p. 117). Intervention occurs, but at a lower rate than in the
United States. In 1997, about 25 percent of Swedish women had epidurals, and
25–50 percent of women had their labors augmented by oxytocin (Rooks 1997, p.
409). In Sweden, the episiotomy rate was approximately 9–10 percent, with about 11
percent of women having cesarean sections (Gaskin 1999, p. 32).

The Swedish National Board of Health and Welfare supervises and evaluates the
clinical work of health providers, midwives, and physicians (Wennstrom 1997). In
1975 a “no-fault” system was put into place by the National Board to handle mal-
practice claims. In general, no-fault systems offer providers liability insurance, with-
out regard to fault. Patients are compensated for any and all injuries that may arise
during their health care, regardless of whether the cause is deemed to be negligence
of the provider or an “unavoidable” result of receiving care. Thus, health complica-
tion, rather than perceived provider negligence, is the main criterion for compensa-
tion in the Swedish system (Danzon 1985, pp. 213–214). Each Swedish county
government pays insurance premiums, and patient claims are submitted to the Patient
Compensation Insurance Fund. If patients demonstrate that their health has been
harmed, they are compensated, without proof of negligence required. The Medical
Responsibility Board (Lassey, Lassey, & Jinks 1997, p. 201) handles disciplinary
action against providers. In short, the Swedish system removes the burden of fear
about malpractice from providers and puts responsibility for compensation into the
hands of a neutral third party—the Patient Compensation Fund.

The Netherlands uses a mix of public and private health care financing to provide
care to its population. Approximately two-thirds of the Dutch population are publicly
insured. Those with income above a certain level obtain their own insurance (Hingst-
man 1994, p. 380). The government encourages home birth for all women with low-
risk pregnancies but offers them a choice of home or short-stay hospital for delivery
have access to prenatal care (Lassey, Lassey, & Jinks 1997, p. 199) and, as in Swe-
den, Dutch women are entrusted to carry their own health records with them.

Perceived “risk” in Dutch maternity care delivery is assessed through a three-
tiered screening system. Midwives in the Netherlands are designated by the govern-
ment as the providers of maternity care during normal pregnancies. If a midwife is
available, mothers must use her services in order to have the full cost of care covered
by the state insurance program. If a midwife is not available in a particular area, then
a general practitioner provides maternity care. In the 1950s, a screening system was
introduced that provided a list of indicators/criteria to clarify which pregnancies fall
under a “high-risk” category and need the care of an obstetrician (Hingstman 1994).

Providing these guidelines are followed, the cost of the delivery is fully covered
by Dutch health insurance. As a result of this system, the number of home births
in the Netherlands—approximately 30 percent—is high when compared to other
high-income countries. Dutch care providers, like their counterparts in Sweden, use
obstetrical technology less often than do their counterparts in the United States. For
example, only 11.2 percent of pregnant Dutch women had cesarean sections in 1997
(CBS, 1999).
Virtually all (99 percent) the inhabitants of the Netherlands are insured, and thus there is no need to litigate to cover additional or anticipated medical costs associated with malpractice. The Dutch legal system limits the amount of compensation awarded for everything from medical mistakes to plane crashes, effectively eliminating large financial rewards as an incentive for legal claims (van Teijlingen 1998).

“Bad outcomes” of pregnancy may occur in Sweden and the Netherlands just as they do in the United States. However, technological intervention is less expected and less accepted in these countries. Belief in the “technological imperative”—that any available technological intervention should be used—does not have the same cultural support in Europe that it has in the United States. In the United States, the value placed on medical intervention is interwoven with a distrust of natural processes. In countries where childbirth is viewed as “a natural process that should be subjected to as little intervention as possible” (Hingstman 1994, p. 37), the notions of risk and liability are less meaningful. Little technological intervention is the norm, not a sign of “negligence.”

**Conclusion**

In this chapter, we have attempted to illustrate the linkages between cultural beliefs about childbirth, social constructions of risk, the use of technology, and malpractice litigation. In contrast to its general medicalization in the United States, childbirth in Sweden and the Netherlands is considered a “safe” and “normal” physiological process. Birth attendants and health care providers in these latter two countries hold the general belief that women are capable of birthing babies without technological intervention and that the process of birth is a personal and family event (McKay 1993, p. 120).

The American fondness for malpractice suits can be attributed to many factors. We have focused on the link between malpractice and culturally constructed notions of risk. Future work in this area could profitably examine structural features of different societies only hinted at here, including the number of practicing lawyers, the use of contingency fees (where the plaintiff’s lawyers are paid a percentage of the settlement), and health care payment systems.

Our analysis calls attention to the fact that, in the realm of childbirth, decisions about care made by health practitioners and women are not freely made. Obstetrical technology must be understood in the context of how and why it is implemented—not only from a biological perspective but also from a larger social critique of its symbolic meanings and uses. The diversity that exists in high-income countries, both in maternity care practices and in configurations of malpractice litigation, gives us a view of alternate possible futures.

**Acknowledgment**

We would like to thank the editors of this volume for their excellent support and encouragement, especially the section editor, Cecilia Benoit. Also, our thanks to Gary Doernhoefer and Kathleen Williamson, who gave helpful advice on this manuscript.
Notes

1. It should be noted that this same study showed that there were 9 percent fewer cases filed in 1997 than in 1986, suggesting that the rise in malpractice cases occurred between the mid-1970s and the mid-1980s (Glaberson 1999, p. 6).

References


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