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Risking It
An Examination of Risk Perception Amongst
Obstetricians and Certified Professional Midwives in Missouri

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Washington University in Saint Louis
Department of Anthropology
Senior Honors Thesis

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ABSTRACT

The concept of risk is pervasive in contemporary discussions of childbirth –both amongst professionals and consumers. While risk is often presented as an objective entity, in reality it is an elusive concept to define, particularly within the context of maternity care. Since the nineteenth century, obstetricians and midwives have conceptualized the risks of birth differently. This thesis examines how two groups of practitioners in Missouri, obstetricians (OBs) and certified professional midwives (CPMs), perceive risk in pregnancy and childbirth. By combining archival investigation techniques with original qualitative research, I hope to demonstrate that risk in maternity care is far from a static concept. Rather, analyzing risk perception requires looking beyond individual knowledge systems to examine who it is that holds authoritative knowledge and how that knowledge drives definitions of risks and cultural understandings of what risks are acceptable during pregnancy and birth and what are not. After describing the history of maternity care in the United States, reviewing the relevant literature related to birth and risk perception, and presenting a qualitative study on the differences in risk perception between OBs and CPMs in Missouri, I move on to discuss the implications that differences and similarities in risk perception may have on the future of maternity care in Missouri.

ACKNOWLEDGEMENTS

I am indebted to a number of individuals without whose knowledge, guidance, encouragement, and time, this project would not have been possible. First of all, a big thank you to my advisor, Dr. Carolyn Sargent for her enthusiasm and unwavering support during every phase of this project. Her trust in my ability to produce this thesis often far exceeded my own. That, along with the wealth of knowledge (and books) that she so generously shared with me, was the driving force behind much of this project. Additionally, I'd like to thank Dr. Barbara Baumgartner, for her interest in my research, words of reassurance, and mastery of English grammar and syntax. Thank you Dr. Lewis Wall for putting me in touch with the obstetric community in Missouri, constantly pushing me to improve my writing, and for being an incredible inspiration. I'd like to thank Adrienne Strong, for her advice early on and for introducing me to the midwifery community in St. Louis.

I would also like to thank Friends of Missouri Midwives, the Missouri Midwives Association, and the obstetricians I met with for so generously letting me into their offices, homes, and lives, and for sharing their personal and professional experiences with me. Finally, I would like to extend my sincerest gratitude to my professors, family, friends, and especially EJF, for constantly supporting me and putting up with my delirium throughout the final weeks of the writing and revision process.

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CHAPTER 1 INTRODUCTION

“For every complex problem, there is a solution that is simple, neat, and wrong.”
-H.L. Mencken

Scope of This Study

In this investigation I will explore the ways in which maternity care has been constructed over the course of the United States’ history to try and minimize the perceived risks in childbirth. The concept of risk is particularly pervasive in discourses surrounding birth practices in the United States. While risk is often presented as an objective entity, it is actually quite an elusive concept to define, particularly within the context of maternity care. Who determines what a risk is? How do they determine it? Who has the cultural authority to deem a risk acceptable or impermissible? How is an individual meant to act in response to risk? Throughout the United States’ history, the answers that physicians and midwives have proposed to these questions have often conflicted.

This thesis will examine how two distinct groups of maternity care practitioners in Missouri, obstetricians (OBs) and certified professional midwives (CPMs) perceive risk in childbirth. The purpose of my research is to: (1) examine how CPMs and OBs conceptualize risk in birth; (2) develop a better understanding of how risk perception influences practitioners’ opinions of the safest way to manage labor; (3) explore practitioners’ thoughts on what level of risk is acceptable in birth; (4) determine who they think is responsible for determining the acceptability of risk; and (5) and investigate whether the risks of medical malpractice lawsuits influence the way CPMs and OBs practice. What I hope to demonstrate throughout this paper is that risk in maternity care is not a static concept. Rather, it fluctuates within and between groups of providers and consumers, creating a complex and

intertwined web of risk definitions and aversion strategies that dictate standards of maternity care in the United States.

There are a number of reasons why studying risk perception in childbirth is an important area of academic inquiry. Anthropological studies on maternity care and risk perception intersect at a very interesting point in the literature: risk perception tends to extend into the disciplines of sociology, public health, and governance while the literature on childbirth tends to extend in the direction of ethnographies, histories, politics, and women's studies. Thus, because risk perception in childbirth exists at a nexus of extraordinary interdisciplinary influence, it is a particularly informative area of research for examining the complex interactions of factors that influence maternity care. I have tried to utilize the perspectives that each of these subjects bring to the study of risk perception and childbirth in order to create as rounded a picture as possible of the state of contemporary maternity care in the United States and specifically, in Missouri.

Inspiration

The focus of this study grew out of the mounting interest I've had in childbirth, maternity care, and women's health over the course of my university education. Three years ago I enrolled in two anthropology courses: one taught by Dr. Carolyn Sargent called "Global Gender Issues," and the other taught by Dr. Lewis Wall called "An Anthropology of Human Birth." The courses introduced me to the anthropology of birth, a subject area that I had known relatively little about, but an area which has directed my course of study ever since. While my original interests were focused on women's maternal health in developing countries, after I spent a year abroad in the United Kingdom and observed the incredibly different system of maternity care that exists there, I became interested in

exploring the medicalization of childbirth in America's system of maternity care. As I began my research, it quickly became clear just how broad and rich the literature available on American birth and maternity care is. Influential readings that solidified my interest in the subject included, most notably, Robbie Davis-Floyd's (1993) essay, *The Technocratic Model of Birth* and Wertz and Wertz's (1977) historical account of childbirth in the United States, *Lying In*.

Following my decision to write a thesis on maternity care systems in Missouri, the committee members who have worked with me throughout this project were extraordinarily helpful in guiding my interests towards a specific area of focus within maternity care, namely risk perception. Additionally, Adrienne Strong, a graduate student with similar interests to mine in the Department of Anthropology, was particularly helpful in pointing my research in the right direction and introducing me to the midwifery community in St. Louis. Through Adrienne I was able to establish an internship with Friends of Missouri Midwives (FoMM) for the second semester of my senior year, which has provided me with invaluable access to the midwifery community in Missouri that I almost certainly would not have had access to if it were not for Adrienne's help. My experience interning with FoMM has been an instrumental resource for informing my research, especially the legislative aspects of it, as a large part of my duties have included spending time at the state capitol in Jefferson City speaking with legislators about current midwifery legislation.

Methodologies

The material used to inform this study was gathered through both archival research techniques and primary source data that I gathered with IRB approval (ID# 201210020) through interviews with practicing obstetricians (OBs) and certified professional midwives

(CPMs) in Missouri. Archival research was conducted by locating relevant books, journals, essays, theses, newspaper articles, government reports, legal documents, conference proceedings, and web pages. Much of this material was found through searches on Washington University in St. Louis' online library database and Google Scholar. I obtained the books cited in this paper through Washington University in St Louis' campus library, their Interlibrary Loan (ILL) system, Amazon.com, Google Books, and generous loans from professors in the Department of Anthropology.

The data used for the portion of this study focused on my own primary research (Chapter 5) was generated through a series of semi-structured, open-ended interviews with OBs and CPMs. I chose to utilize semi-structured interviews because it was important to me to choose a qualitative research method that would give the participant some control in directing the interview. Because I had conducted much of my literature review prior to collecting primary data, I wanted to ensure that my interviews were not so structured that they would impose my expectations onto the participant, thus biasing my results. To be sure, a degree of this sort of bias is inherent in qualitative interviewing, and I am sure that as a novice researcher I am more prone to introducing this source of error than more experienced researchers. But to the extent that I could, I tried to keep interviews as open and unbiased as possible. The interview guide I used to conduct my qualitative research can be found in Appendix A. However, covering each and every prepared question was far less important to me than feeling that I had developed a well-rounded understanding of the participant's views on risk and safety in childbirth. The methods used for collecting and analyzing qualitative data are discussed in much greater depth in the "Methods" section of Chapter 5.

As with all research methods, there are certainly limitations to qualitative research. For instance, qualitative studies usually cannot be generalized to other groups of people or other settings. Additionally, results from qualitative research are more easily influenced by a researcher's explicit and implicit personal biases. For me personally as a novice researcher, remaining focused on answering my research questions was particularly challenging. During every phase of this investigation –researching, interviewing, and analyzing data, I would often find myself contemplating tangential aspects of maternity care and women's health. Particularly, I think the open-ended nature of my interviews, while allowing me collect a very rich compilation of responses, left me with a portion of data that was outside the scope of this study. Much of that data was fascinating, and will hopefully be the subject of future research I conduct. But for future investigations, I hope to improve my interviewing techniques to strengthen the focus of my results.

Terminology: Midwifery Qualifications

Nurse-midwives, non-nurse midwives, certified professional midwives, lay midwives, direct-entry midwives, and traditional midwives –the many nuanced distinctions and overlaps between these qualifications can make any discussion on midwifery nothing short of confusing. “Midwifery” largely exists as an umbrella term in the United States under which many different, albeit related, midwifery qualifications fall. This section describes each, laying out the terminology I will be using throughout this paper. Understanding the idiosyncrasies between the different groups of midwives is vital to understanding the current state of midwifery in America.

Certified Nurse-Midwives (CNMs)

A CNM is a midwife who has completed a nurse-midwifery education program accredited by the American College of Nurse Midwives' (ACNM) Accreditation Commission for Midwifery Education board (ACME) and passed the National Certification Examination distributed by the American Midwifery Certification Board (AMCB). The most notable distinction between the CNM and other practitioners is the prerequisite that he or she have previously attended a nursing school and be qualified as a registered nurse (RN). The CNM is also the only practitioner with nationwide prescriptive authority (American College of Nurse Midwives 2011).

While not a national requirement of the qualification, the vast majority of CNMs practice in hospitals. As of 2009, only three percent of births attended by CNMs occurred outside of a hospital (Martin et al. 2012). The small portion of CNMs that attend births outside of the hospital do so in private practices with physicians or midwives, freestanding birthing centers, or homes. Across the county, the number of CNMs who attend home births is quite small. One of the reasons CNMs mainly practice within hospital settings and rarely attend home births is that all states require CNMs to have a collaborative arrangement with a physician. Another reason, which has been noted with increasing frequency over the past twenty-five years, is that most CNM training does not include attendance at home births. They therefore never gain the experience necessary to feel comfortable attending such deliveries (Davis-Floyd and Johnson 2006:62).

CNM-attended births have been shown to reduce costs associated with childbirth (Krumlauf et al. 1988). The most recent nationwide study published by Stapleton et al. (2013) on the efficacy of CNM-led birth center births indicates that low-risk women who utilize CNMs typically have lower rates of epidural anesthetic use, episiotomy, and cesarean

section than similarly low-risk women who labor in hospitals under the care of a physician. Importantly, the study suggests that while CNM-attended birth decreases costs and intervention rates, the care provided is still high quality, safe, and effective (Stapleton et al. 2013). CNMs are currently the only group of midwives who are licensed to practice nationwide, although the scope of their practices vary greatly from state to state. Most private insurance companies, as well as Medicaid and Medicare cover the services that CNMs provide (American College of Nurse Midwives 2011).

Certified Midwives (CM)

In 1996 the ACNM introduced an accreditation process for direct-entry midwives that would qualify them as CMs (for a definition of direct-entry midwifery, see below) (Davis-Floyd and Johnson 2006:56). The program was intended to broaden the visibility of midwifery practitioners by appealing to those who wanted to become midwives but felt that they should not have to dedicate years of medically-oriented nursing training to do so. Like CNMs, CMs must also be university educated, complete a midwifery education program accredited by ACME, pass the same National Certification Examination as CNMs, and work collaboratively with physicians (American College of Nurse Midwives 2012). Davis-Floyd and Johnson (2006:133) sum up the differences between the two qualifications concisely by saying that the CM certification was created to, “look like medicalized nurse-midwifery minus the nursing.”

CMs, who are currently only licensed in five states (not including Missouri), are far less common than their CNM counterparts. A report released by the ACNM (2012:2) claimed that according to the AMCB, as of January 2012 there were 12,622 CNMs practicing in the United States and only 73 CMs.

Certified Professional-Midwives (CPMs)

At almost the same time that the CM certification was created by the ACNM, the North American Registry of Midwives (NARM) (Midwives Alliance of North America's (MANA) certifying sister organization) established another direct-entry midwifery certification called the Certified Professional Midwife (CPM). Davis-Floyd and Johnson (2006:56-58) note that while the substantial overlap between the CM and CPM qualification created significant hostility between ACNM and MANA members, the two organizations have developed a more affiliative and symbiotic relationship in recent years.

But there are some important differences between CMs and CPMs. While the ACNM oversees CMs, there are two umbrella organizations that oversee CPMs: MANA and the National Association of Certified Professional Midwives (NACPM). While a single group of professionals represented by two separate organizations may seem problematic or redundant, there is a reason behind this curious arrangement. Up until very recently, MANA was the only organization that represented direct-entry midwives in the United States. However, MANA has never required CPM certification for membership. Davis-Floyd and Johnson (2006:64-65) describe how this became problematic when the organization started advocating for state legislatures to introduce bills to legalize and license CPMs. According to Davis-Floyd and Johnson (2006:65), state legislators refused to consider CPM legislation if the professional organization overseeing CPMs (MANA) did not require CPM certification as a prerequisite for membership. Thus, NACPM was born in 2004. It serves as the professional organization for CPMs while MANA remains the advocacy organization for *all* forms of direct-entry midwifery in the United States.

The CPM qualification has the main function of providing national accreditation routes for midwives who are primarily interested in attending home births. Unlike CMs,

CPMs do not need to enter into collaborative agreements with physicians in order to practice so they thus have increased flexibility to attend deliveries in non-medicalized settings. But CPMs have yet to gain the same acceptance and legal status across the country as CNMs have. According to the Big Push for Midwives Campaign (2012), CPMs are either regulated or legalized in twenty-seven states. In the remaining twenty-three states, as well as the District of Columbia, the practice remains illegal.

Direct Entry Midwives (DEMs)

The term “direct-entry” is used to refer to all forms of midwifery that do not require a nursing degree as a prerequisite for certification –essentially all midwives who are not CNMs. For the purpose of this thesis, all references to DEMs will be an inclusive term used to indicate the group of midwives that are made up of CPMs as well as non-licensed midwives. Throughout this paper, non-licensed DEMs are also referred to as lay midwives and traditional midwives.

CHAPTER 2 THE EVOLUTION OF MATERNITY CARE IN THE UNITED STATES

A chapter devoted to a historical recount of maternity services in the United States may seem a digression in a thesis focused on modern standards of care. But understanding the history of childbirth –the development, dissemination, and demise of various models of care, is essential to understanding not only contemporary practices, but also why a single integrated model of maternity care has yet to be realized in the United States.

Understanding American birth requires much more than understanding the physiological process of labor and delivery. Rather than an isolated affair, childbirth is a culturally defined and performed event (Jordan 1976). Thus, any examination of birth that doesn't take into account sociocultural trends over time is a partial representation. The history of childbirth and maternity care in the United States is one of social stratification, wavering gender norms, and transformations in moral values. But perhaps more than anything, it is a history that demonstrates the overwhelming power that lay and professional groups with cultural influence have to sway the standards for what is acceptable in birth.

Before we can attempt to understand contemporary models of managing pregnancy and birth, we must first take a moment to understand how contemporary models came to be. What I hope to show in this chapter is that an understanding of the history of maternity care practices in the United States is essential to appreciating why ideological divisions exist between obstetricians and midwives today.

Early Models of Childbirth: Colonial Birth (1700s)

America's first colonials, mainly immigrants from England, brought with them the cultural traditions that were valued in their mother country. This included a female-centric

tradition of home birth. Birth in the United States prior to the 1760s was seen solely as a woman's matter, a social event that was a fundamental aspect of domestic life. Women were considered the most appropriate birth attendants because they were the only ones who could understand what going through labor was actually like (Leavitt 1986; Wertz and Wertz 1977). Additionally, societal notions of modesty placed females in the position of being the most appropriate attendants. Women used their personal experiences to coach other women through labor; and most women had *lots* of experience.

The value placed on having large families and the lack of effective birth control made pregnancy and childbirth a fairly omnipresent feature of colonial life. That value, combined with the social fulfillment that birth provided the colonial woman meant that she could expect to spend the majority of her married life either pregnant or raising young children (Wertz and Wertz 1977).

Understandably, the energy and time required to keep a household running under such conditions was enormously taxing. Thus, it was common practice for a pregnant woman's female friends to take over the woman's household responsibilities during the weeks immediately prior to and following delivery, so that the woman could take to bed. This period was known as "lying-in" (Leavitt 1986; Wertz and Wertz 1977). Wertz and Wertz (1977:4-5) describe the social function of lying-in as arguably the most important feature of colonial birth. The practical aid women provided in looking after children, cooking, cleaning, and keeping up with other household chores allowed parturient women to concentrate on preparing for labor before birth and focus on regaining strength and nursing their newborn afterwards.

In addition to female relatives and friends, a midwife was also often in attendance at colonial births. In many instances, the role of the midwife was passive –she usually observed

and supported the laboring woman through delivery (Donegan 1971:7-9). Because midwives typically attended more births than the average woman, her attendance often provided laboring women with the comfort they needed to reduce anxieties. Despite her passive role, the colonial midwife was likely still capable of positively influencing birth outcomes, as the more relaxed and confident a woman is during labor, the more smoothly her labor tends to progress (Wertz and Wertz 1977:6).

Midwives received no formal training, participated in no standardized apprenticeship programs, and reported to no overseeing professional organization. They functioned in large part independently, without much thought of professionalizing their trade (Leavitt 1986; Ehrenreich and English 2010). Obtaining the title of midwife was largely based on social perception of a woman's skill as dexterous, empathetic, and to a certain degree, lucky in the births she attended (Wertz and Wertz 1977).

Midwives' functions within colonial society suggest the high value and respect that was afforded to them prior to the 1750s. At the time, they inadvertently dominated the field of childbirth. Physicians were few and far between and a long ways away from gaining the respect that professionalization later granted them. In the mind of colonial women, the safest birth was one attended by her female friends, a midwife, and situated in the comfort of her home.

The interventions midwives were capable of performing in the eighteenth century were unsurprisingly limited. In an age before antibiotics or general anesthesia, surgical intervention was not a realistic option. Attempting to perform a surgery as invasive as a cesarean delivery, if even considered, would have been an almost certain death sentence.

Despite their limited capacity for intervention, midwives and other females who attended social births had a number of folk remedies that could be used if labor was

excessively painful, lengthy, or appeared to be progressing abnormally. A few of these remedies, like the use of opium for pain relief, were clearly beneficial (Wertz and Wertz 1977:16). However, while the majority of interventions utilized by midwives were likely ineffective, some of them may have benefited women nonetheless due to a placebo effect (Wertz and Wertz 1977:17).

The Man-Midwife

By the beginning of the nineteenth century wealthy women seeking to be progressive and fashionable began inviting male physicians, who called themselves “man-midwives,” into the previously exclusively female domain of birth (Michaelson 1988:2). These women hoped that a male’s presence would increase the safety of birth. One of the many factors that attracted women to choose man-midwives was their interest in newly imported European medical technologies that female midwives did not have access to (Ettinger 2006:7).

These new methods included: forceps, bloodletting, leeching, calomel, and ergot (Wolf 2009:14). The use of interventions distinguished the care that man-midwives could provide from their female counterparts. Thus, a “new-midwifery” that was male-driven and seemed to assure increased safety and decreased pain was born (Leavitt 1986; Wertz and Wertz 1977). The aura of science that this new-midwifery was entrenched in slowly began to attract the wealthiest women of society to preferentially choose physicians as the attendants for their births (Thomasson and Treber 2004).

While the lure of medical modernity led these women to believe that physician-attended birth was safer than midwife-attended birth, this was rarely the case. Bloodletting and leeching had no real therapeutic value (Wertz and Wertz 1977). Forceps were often used recklessly without any prior training, which regularly resulted in severe vaginal trauma and perineal tearing (Michaelson 1988). Additionally, the social dictum of modesty prohibited

men from visually examining women throughout their deliveries, which limited their ability to react properly when complications did arise.

Nonetheless, male infiltration into the domain of childbirth proved not to be transitory, but a cogent force in redefining maternity care in the United States. Women began thinking about birth as an event in which they had *options* rather than a divine occasion that was out of their control (Michaelson 1988:2). Midwives continued to attend the vast majority of deliveries through the eighteenth and nineteenth centuries. But beginning in the 1800s the seeds of change were being planted. Male physicians were eager to grow their practices but midwives, who saw their role in birth as being more social than professional, did not share physicians' interests (Thomasson and Treber 2004).

Formalizing the Distinction: Physicians and Midwives (1800s)

The first major social movement to influence the direction of American maternity care began at the turn of the nineteenth century. Physicians were becoming eager to professionalize their industry and mirror the system of organized medicine in Europe.

It is important to understand why physicians chose to focus on developing childbirth-oriented practices instead of the seemingly more logical choice of focusing on general practices. According to Leavitt (1986) in the eighteenth and early nineteenth centuries, childbirth was one of the few areas that physicians really had any basic anatomical and physiological knowledge of. Because the majority of births conclude successfully, that is, without serious complications to the mother or child, regardless of medical intervention, childbirth represented an important gateway for physicians: if they could demonstrate their ability to manage births with positive outcomes, it would create a client base upon which

they could begin to build general practices. Gaining solid footing as birth attendants was seen as a necessary step if physicians wanted to broaden their appeal to the proletariat.

One of the first things male physicians did to formalize their distinction from midwives was to rename their professions. In 1828, after much debate, physicians agreed upon the title *obstetrician*, derived from the Latin “obstare,” to stand before (Wertz and Wertz 1977:66) “Obstetrician” not only distinguished male physicians from midwives, but also suggested a degree of specialization over and above what a general practitioner could offer.

Obstetricians were developing a reputation amongst the wealthy for their ability to intervene in labor. Distinguishing themselves by their possession of interventional technology, obstetricians found themselves in a position where women who paid for physician-attended birth expected an active demonstration of the technologically advanced skills that they felt they had purchased (Wertz and Wertz 1977:63). The pressure physicians were under to demonstrate mastery over interventional technology paralleled a steady growth in the number of births that seemed to require intervention.

Doctors founded the American Medical Association (AMA) in 1847 but even after it was founded, physicians remained acutely aware of the fragility of their profession: If their limited clientele of upper-class women started seeking midwife-attended delivery again, physicians would likely lose the majority of their clientele, undermining any hope of developing successful businesses as general practitioners. Wertz and Wertz (1977:55) cite a physician who aptly demonstrated this concern: “If female midwifery is again introduced among the rich and influential, it will become fashionable and it will be considered indelicate to employ a physician.”

Because women were often anxious and fearful of labor pain, physicians focused on advertising the new forms of anesthesia they possessed, promising that they relieve female

suffering during labor (Thomasson and Treber 2004). By the mid-nineteenth century, according to Wolf (2009:14-15), societal norms had begun reinforcing women as “weak and unhealthy” and birth as “unbearably painful,” requiring the skilled interventions of a medical professional. Increasing maternal mortality rates from septicemia bolstered physicians’ view that childbirth was to be approached with fear and managed by a professional. In reality, septicemia likely became more common in the United States after 1840 because of physicians’ poor hygienic standards and growing tendency to intervene during childbirth (Wertz and Wertz 1977:119). While poor hygienic standards were not limited to physicians, because they tended to intervene more in labor and attend more births in close time spans, their ability to spread the bacteria that caused septicemia was often greater than midwives.

In 1910 Abraham Flexner published a now famous indictment of medical education and physicians’ practices known as the Flexner Report (Thomasson and Treber 2004; Leavitt 1986; Wertz and Wertz 1977). The report presented a study that indicated that ninety percent of practicing doctors had not attended medical school. Flexner bemoaned that any “crude boy or jaded clerk” could become a doctor under the United States’ current system of medical education (Ehrenreich and English 2010:82). The report called for higher admission and graduation standards in order to receive a medical degree.

Ehrenreich and English (2010:82) discuss the effect that the Flexner Report had on the development of medicine as an elite profession. First of all, because it was clearly not a shining endorsement for physicians, the AMA enacted a number of medical education reforms that turned medical training into a standardized, and in turn, longer and more expensive process. Additionally, most of the smaller and poorer medical schools, which were often the only institutions that poor men, blacks, and women seeking medical education

could attend, were shut down. As a result, the medical profession became accessible almost exclusively to white, male, middle- and upper class males.

Following the Flexner Report, physicians began to make real strides towards turning their occupation into a profession. The 1910 reforms to medical education had helped in solidifying physicians' place as first-choice birth attendants for the women who could afford their services. It situated many lay health practitioners, including midwives, as socially inferior to physicians. By the twentieth century, midwives had become unpopular amongst the elite. However, the elite were still the minority. At the turn of the century, midwives still remained the primary birth attendants for the majority of working class women in the United States (Wertz and Wertz 1977).

These women preferred midwives for a number of reasons. For one, they could usually not afford physician-attended birth. But additionally, many were opposed to employing men as birth attendants because they thought it was immodest and thus, immoral. Issues of modesty aside, female midwives also offered broader care to women, often spending extended periods of time with them and assisting in household chores after delivery in a way reminiscent of colonial social birth (Litoff 1982:8). Midwives often shared race and nationality with their clients, as immigration was unrestricted at the time. This was often a source of comfort for laboring women (Kobrin 1966:351). Moving into the twentieth century, the percentage of births attended by physicians was still weighted in favor of midwives (Ehrenreich and English 2010:151). But the twentieth century would bring more drastic changes to maternity care than any century prior.

The Midwife Problem and a Solution: The Nurse-Midwife

The release of the Flexner Report caused much of the professionalization that occurred within the field of obstetrics at the turn of the twentieth century. But the physicians who were eager to develop practices that specialized in obstetrics continued to worry about the competitive threat that midwives posed to their pursuits (Thomasson and Trebber 2004).

Parallel to physicians' growing concerns about traditional midwives were public health concerns about the rapid urbanization of cities across the United States. Much of the population growth in the early 1900s was the result of the flux of immigrants arrived coming to America, most of whom settled in major cities. These urban centers provided the most ample opportunities for work, and were therefore highly appealing to immigrant populations. But the living conditions immigrants faced in urban ghettos were extraordinarily poor –hygienic standards were virtually nonexistent, working conditions were dangerous, and maternal mortality rates were alarmingly high (Dawley 2003). As health statistics became more available and reliable, particularly statistics regarding maternal and neonatal health outcomes in urban centers, public health nurses and social reformers began to take notice. Their careers were vested in these underprivileged communities, and they therefore saw creating maternal health reforms in indigent populations as the key to improving birth statistics (Ping and Sibbold 2010; Dawley 2003; Leavitt 1986).

Physicians believed that obstetrical education was the answer to improving health outcomes. But in order to improve the quality of obstetrical education, physicians needed a substantial group of women who would be willing to have medical students attend their births as academic teaching opportunities. The only women who would be willing to do this were women who were so poor that they would find the tradeoff of their modesty for free obstetrical care appealing. These were precisely the women that midwives attended. As long

as midwives continued to offer poor women an alternative to physician-attended birth, doctors would be losing out on valuable access to educational resources (Michaelson 1988).

Dr. Charles Zeigler, a physician practicing at the turn of the twentieth century, explained at the yearly meeting of the American Association for Study and Prevention of Infant Mortality that, “any scheme for improvement in obstetric teaching and practice which does not contemplate the ultimate elimination of the midwife will not succeed” (Edgar 1915:92).

The poor standard of urban living coupled with the low social status of immigrants led physicians and public health nurses alike to place blame for the worryingly high maternal and neonatal mortality rates on traditional immigrant midwives (Dawley 2003:86). The growing eugenics movement had greatly diminished the social status of immigrants and women. Thus, midwives, who were mostly immigrants and all women, seemed like obvious culprits behind the United States’ startlingly poor childbirth outcomes (Dawley 2003:87).

As the decade progressed, the number of medical professionals publishing statements in journals regarding the “Midwife Problem” increased. They blamed midwives for rising rates of neonatal ophthalmia (Ehrenreich and English 2005:106) and puerperal fever (Kobrin 1966:351), conditions that were considered preventable at the time with modern medical knowledge.^{1,2} For instance, Dr. J. Clifton Edgar, a prominent physician at the time,

¹ Ehrenreich and English (2005:106) describe neonatal ophthalmia as “blindness in babies whose mothers have gonorrhoea.” Administering silver nitrate drops to the child at birth prevents this condition.

² Puerperal fever, sometimes also referred to as childbed fever, is an infection that causes septicemia, cellulitis, and peritonitis. Up until the middle of the twentieth century the condition was often fatal. But in 1861, Semmelweis, a Hungarian physician, published a now famous book titled, *The Etiology, Concept, and Prophylaxis of Childbed Fever*, which detailed an antiseptic technique to prevent puerperal fever. The technique is largely responsible for the substantial reduction of the infection (Encyclopædia Britannica Online).

wrote exasperatedly about the negative outcomes that resulted from births attended by midwives who lacked the medical training that was required of physicians:

Today an anomalous condition exists in this country. On the one hand physicians and, even trained nurses, before they are permitted to enter upon the practice of their profession, are required to receive several years' instruction in the care and treatment of the sick, as well as special instruction in the treatment and care of child-bearing women and new-born infants. On the other hand, although about forty per cent of the confinements in this country are cared for by midwives, these same midwives are, except in rare instances, ignorant, untrained, incompetent women, and some of the results of their obstetric incompetence are, unnecessary deaths and blindness of the infants, and avoidable invalidism, suffering and death of the mothers. [Edgar 1915:90-91]

Public health nurses participated in this campaign as well. However, while physicians were driven by a desire to specialize, a number of public health nurses were driven by a vision of developing midwifery as a new nurse specialization to improve health outcomes (Dawley 2013). Mary Breckinridge was one of these visionaries.

Breckinridge was very much aware of the “Midwife Problem” and was troubled by the role that traditional midwives played in the high maternal mortality statistics in the United States. Already a qualified nurse, she trained as a public health nurse at Columbia University before leaving the country with the American Committee of Relief to serve as a pediatric nurse in a shattered post-World War I Belgium and France, where she first encountered nurse-midwifery (Edwards and Waldorf 1984:10). Later, she studied nurse-midwifery in England, eventually obtaining professional certification in the United Kingdom. By that time, she had developed a vision for establishing a nursing service in her home state of Kentucky that would mirror the European model of decentralized midwifery care (Wertz and Wertz 1977:217).

Upon her return to the United States in 1925, Breckenridge established the Frontier Nursing Service (FNS) in Appalachian Kentucky. Her hope was to create a network of nurses who would be able to provide health services to women and children living in remote

areas that were inaccessible to physicians (Wertz and Wertz 1977:217). She began sending U.S. nurses overseas to train as midwives in England before returning to work with the FNS. From the time of the FNS's establishment in 1925 to 1952, its staff encountered only 11 maternal deaths (Edwards and Waldorf 1984:11). In 1939 the FNS established its own nurse-midwifery training program, one of the first in the country (Dawley and Burst 2005).

As physician-attended birth became more common, trust in traditional midwifery within the general public waned. While many historical recounts of the disappearance of midwifery from mainstream birth in the United States often place blame squarely on the shoulders of physicians, Wertz and Wertz (1977:48) emphasize what they believe is a much more realistic assessment:

It is important to emphasize...that the disappearance of midwives at middle- and upper class births was not the result of a conspiracy between male doctors and husbands. The choice of medical attendants was the responsibility of women, upon whom devolved the care of their families' health. Women were free to choose whom they wished....But as the number of midwives diminished, women of course found fewer respectable, trained women of their own class whom they might choose to help in their deliveries.

By the 1900s the first major social shift in maternity care was well under way: childbirth was becoming the physician's territory. The majority of middle- and upper class women were opening their homes and births to the forces of medicine and technology. As a result, although traditional midwives remained the primary care practitioners for certain groups of immigrants and Southern black families, they largely disappeared from view in the middle-class mainstream demographic (Litoff 1978:26).

From Home to Hospital: The Medicalization of Childbirth

As the 1900s progressed, puerperal fever, a bacterial infection sometimes also referred to as childbed fever, started to become a more serious problem—clear patterns of

postpartum deaths from the illness were emerging as public health statistics became more reliable and available (Kobrin 1966:355). While there was a general understanding that uncleanliness caused disease, the notion of uncleanliness was loaded with antisocial and immoral implications. The poor, the social pariahs, the religious outcasts, and the immigrants were considered unclean –not the white middle- and upper class physicians. Doctors, as true gentlemen, did not believe that hand washing or other antiseptic behaviors were particularly necessary (Wertz and Wertz 1977:122).

Puerperal fever had not been of such significant concern in colonial America because the midwives who attended births were very noninterventionist and did not attend multiple births in a close time span. However, as physicians began to attend more and more births, often using instruments that caused trauma during delivery, the risk of septicemia from bacterial infection increased exponentially (Litoff 1982:8-10).

Much of the blame for puerperal fever was placed on the birthing place, which still largely remained in the home in the early 1900s. Women were becoming more and more insistent on pain-free and disease-free births (Wertz and Wertz 1977:119). Doctors, in turn, were pressured to develop preventative methods for managing labor. According to Wertz and Wertz (1977:128), this shift encouraged physicians to classify every parturient woman as potentially diseased.

As the 1900s progressed, advancements in anesthesia developed more quickly and it became clear that physicians would not be able to transport anesthetic technology from home to home. If women wanted painless births, they would need to go to the hospital (Michaelson 1988:3). According to Leavitt (1986:61) at the beginning of the century only five percent of women were delivered in hospitals. The women who typically birthed in hospitals were the homeless and degenerate who could not birth at home. But by 1939 Wertz and

Wertz (1977:133) note that, “half of all women and 75 percent of all urban women were delivering in hospitals.” The move to the hospital that began slowly at the beginning of the twentieth century picked up momentum in the 1920s. More and more births began to take place in hospital settings where physicians could more stringently control the birthing environments and more easily utilize medical technology (Wertz and Wertz 1977:133).

While the hospital seemed to afford parturient women the benefit of pain relief, Leavitt (1986:298) discusses a number of factors that made physicians eager to make the move as well. Specifically, she mentions how the hospital reinforced the attendance of birth as a *specialized* domain requiring the expert knowledge of a highly trained professional. Moving to a hospital-based model also allowed physicians to centralize their practices, making their businesses more lucrative and convenient (Thomasson and Trebber 2004:2). Hospital births meant that physicians would no longer have to travel great distances to attend births that could last days. Instead, nurses could assist doctors, decreasing the amount of time physicians had to be present during a woman’s labor (Vogel 1980:102-103).

New maternity wings developed where the modern woman could go for pain relief and respite from her home life during birth. The women from wealthy families who could afford hospital fees began to choose hospital delivery in the first two decades of the twentieth century (Wertz and Wertz 1977:133). Middle-class women tended to still deliver at home with the assistance of a physician, while midwives’ practices were generally limited to poor immigrants (Thomasson and Treber 2004:9).

One very influential physician who strongly advocated for the elimination of the midwife and the relocation of birth from the home to the hospital was an obstetrician named Dr. Joseph DeLee. DeLee was extraordinarily vocal about his view on childbirth: he believed it was pathology, and very harmful pathology at that (Cassidy 2007:143). He published many

articles promoting his view of labor as a disease. In one (now infamous) article published in the first volume of the *American Journal of Obstetrics and Gynecology* he wrote, “Only a small minority of women escape damage during labor.... So frequent are these bad effects, that I have often wondered whether Nature did not deliberately intend women should be used up in the process of reproduction, in a manner analogous to that of salmon, which dies after spawning” (DeLee 1920:40-41). DeLee called for routine use of interventions during labor, suggesting that the safest way for women to give birth was to have their labors attended by highly specialized physicians who were trained to surgically manage the inherent dangers in birth. DeLee championed routine use of forceps and episiotomies, which remained standard practice long after his death in 1942 (Cassidy 2007:144).

While many physicians agreed with DeLee and felt that being able to control the hospital environment would decrease rates of negative outcomes, including infection, obstetricians were still not routinely washing their hands with antiseptic solution. The crisp, clean appearances of new maternity wards did nothing to decrease the risk of mortality from puerperal fever. In fact, because proximity allowed doctors to attend multiple women simultaneously, infections were able to spread even more rapidly, keeping mortality rates steadily high (Leavitt 1983). Hospital mortality rates remained high until the mid-1930s, when improved hospital sanitation practices and the introduction of penicillin were able to combat the risk of infection developing into life-threatening sepsis (Thomasson and Treber 2004:4; Shapiro et al. 1968). Over the course of the next decade the percentage of women giving birth in a hospital skyrocketed –reaching 95 percent by 1955 (Leavitt 1983:301)

The move to the hospital took only a matter of decades, but led to major changes in how women and physicians thought about and managed birth. Specifically, it strengthened the perception of birth as a pathological condition that was best handled by professionals.

Women were eager for pain relief, and that is exactly what hospitals promised. But hospital births also meant that women had to agree to the hospital model of birth, where physicians were able to assert medical authority.

Twilight Sleep

Women's desire for painless birth in the nineteenth century had evolved into a demand by the twentieth. While ether and chloroform were first used for pain relief in labor during the mid-1800s, it was not until the turn of the twentieth century that the use of obstetric anesthesia became widespread (Wolf 2009:13-23) But neither ether nor chloroform were ideal anesthetics, nor did they make childbirth painless. According to Thomasson and Treber (2004:15), because of the risks of complications, chloroform and ether could often not be administered until late in labor, well after women began experiencing painful uterine contractions. The postnatal risks of maternal cardiac complications from chloroform and slowed recovery from ether made the use of these drugs far from ideal (Rushman et al. 1996:22-26).

In 1907, a new anesthetic technique was introduced in Germany that promised truly pain-free labor (Hairston 1996; Ver Beck 1915). The method involved administering a combination of morphine and scopolamine to parturient women that would alter their states of consciousness so that they would have no memory of labor—including its pains (Leavitt 1980:128). The method was called the Freiburg method. It remained fairly unknown to women in the United States until 1914, when two journalists reported on the German method, effectively renaming it *twilight sleep* (Leavitt 1986; Wertz and Wertz 1977; Ver Beck 1914).

The journalists, Marguerite Tracy and Constance Leupp, published a report on an American woman who had gone to the Freiburg Clinic in Germany to deliver under twilight

sleep (Leavitt 1980:150). The journalists described twilight sleep as a “medical miracle” that had been hidden from women in the United States for so long because the medical community thought it “[took] too much time” (Boyd and Tracy 1914:57-58). Tracy and Leupp called upon women to take a stand and advocate for their right to choice in childbirth (Ver Beck 1914:9-10). And they did. Wealthy society ladies, compelled by a new wave of feminism, initiated a campaign for twilight sleep (Wertz and Wertz 1977). In a seeming paradox, these women insisted on asserting their control over their bodies and their births by relinquishing control of their consciousness during labor (Leavitt 1980:161). The high social standing of these women allowed the twilight sleep movement to gain momentum and support from the general public very quickly. *The New York Times* heralded the campaign as the beginning of “a new era for woman and through her for the whole human race” (New York Times 1915). Regardless of whether physicians agreed with scopolamine use during labor or not, they had no choice but to take notice of the movement.

The campaign for twilight sleep was immensely successful in mobilizing women. Popular magazines published accounts of women’s wonderful experiences with twilight sleep; readers were ecstatic (Hairston 1996). However, medical journals reported a very different side to twilight sleep: concerns about asphyxia, inhumane suffering of women, and uncontrollable delirium had prevented physicians from accepting the treatment when it had first been introduced in 1907 (Leavitt 1980:133-135).

Scopolamine only erased memories of labor; it didn’t prevent labor pains from uterine contractions from occurring. Women in twilight sleep were often reported to lash out violently, attack nurses, and scream uncontrollably during the height of contractions. Wolf (2009:50) cites a number of nurse’s accounts from handling women under twilight sleep. One account comes from a nurse who worked at the Philadelphia Lying-In Charity

Hospital in 1908. The nurse reported on a patient's chart, "So perverse and obstreperous! Kicked, writhed, scratched, and yelled like a caged animal. Took three nurses and two interns to manage her. (And then some!)" (Wolf 2009:50). Another nurse working at the same hospital wrote on a woman's chart, "Flopped around like a fish and kept calling, 'Boy, Boy, Boy'" (Wolf 2009:50).

While a significant portion of the medical community was wary about the procedure, publicity about the technique spread more quickly than reservations published in medical journals did. Many physicians acquiesced to their patients' desires out of fear of losing business (Wolf 2009:70). Armed with their beliefs about the benefits of twilight sleep, women threatened to take their business elsewhere if their doctors refused to administer scopolamine. (Wolf 2009:70).

Despite its rapid dissemination, the twilight sleep movement was not long-lived. Fifteen months after Tracy and Leupp first published their article touting the benefits of twilight sleep, a very prominent and outspoken advocate of the procedure, Francis Carmody, died in childbirth (Wolf 2009:68). Her death received almost as much public attention as the movement had itself. While it was reported that her death was caused by a hemorrhage, not a complication of twilight sleep, the tragedy shifted the focus of the public's attention to the *risks* of twilight sleep instead of the *benefits*. (Wolf 2009:69). Public interest in scopolamine and twilight sleep quickly waned. Twilight sleep as a cultural fad demonstrates the power that journalists and wealthy society women had to drastically influence the public's perceptions of risk in birth.

Wolf (2009:70-71) discusses the many significant and long-lasting effects that the movement had on hospitals' routine management of childbirth. First, the campaign exposed the power of women to shape obstetrical practices (Wolf 2009:70). Second, it promoted the

need for obstetricians as specialists (Wolf 2009:70). The allure of painless birth brought even more women into the hospital, generating a more pervasive view than ever that the safest and happiest births happened in a hospital under a specialist's care. Third, it helped to make labor more manageable for physicians. Under twilight sleep, physicians were free to utilize augmentative and interventional techniques to streamline the labor process (Wertz and Wertz 1977:152). Fourth, Wolf (2009:71) argues that the movement resulted in the desensitization of doctors to their patient's suffering. Under twilight sleep, doctors knew that their patients would have no recollection of the pain they were in, so much less attention was given to providing women with emotional support. Finally, while the public's interest in scopolamine waned, the restraints that had been developed to limit women's movement under twilight sleep remained a ubiquitous part of hospital birth for decades to come (Wolf 2009:70).

The twilight sleep movement was perhaps the most potent force behind the move from the home to the hospital. The drugs and equipment required for twilight sleep could not be administered safely outside of a hospital setting. They required skilled physicians who had the specialized skills necessary to administer potent drugs. Slowly the notion of safety in childbirth started to shift from being focused on the woman's personal and emotional wellbeing to being focused on where birth occurred and who it was attended by (Wertz and Wertz 1977:155).

Birthing the Baby Boom

The years following World War II, women behaved with great consistency when it came to their reproductive and birthing behaviors. Men who had spent years serving in the military were returning home from war and eager to start families and try and return to a life

of normalcy. Wolf (2009:107) describes how the “unusual uniformity” in fertility patterns was key to the development of the well-known baby boom of the 1950s. She makes the observation that the women who had reached their reproductive peaks by the 1950s were the babies of the Great Depression (the smallest generation of the twentieth century). Thus, giving birth to the baby boomers, the largest generation in the United State’s history, required high rates of conception in a very short period of time (Wolf 2009:107). And that is what happened: women married young, gave birth to three to four children in their first few years of marriage, and were done having children by their mid- to late twenties (Wolf 2009:107).

By this time, medicalized hospital birth attended by a physician was the norm. The adage, “doctor knows best” reigned supreme. Long forgotten were the times where women had fought for control over their birthing experiences through twilight sleep. Rather, physician authority was rarely challenged by a generation of women who were generally happy to defer to medical authority in birth (Leavitt 1986:189). Physicians’ high levels of education and extensive medical training were held in high regard and thus, the cultural dictum of the time was that the best way to minimize risks during pregnancy and birth was to trust doctors.

Medical advancements during and following the war had enchanted the country with the wonders of modern medicine. Most notable was the development of penicillin. The use of penicillin in maternity wards vastly diminished the risks of women dying from septicemia—one of the greatest killers of postpartum women in earlier generations (Wertz and Wertz 1977:164). Another development of the decade, blood banking, allowed doctors to decrease mortality from postpartum hemorrhage through blood transfusions (Wertz and Wertz 1977:164). The two greatest killers of postpartum women, infection and hemorrhage, were

largely risks of the past. These new advancements were widely publicized by the medical community, and in return, widely sought out by women (Wolf 2009:109).

But analogous to the many developing industries of the time, increased demand called for increased standardization in labor and delivery wards. The importance of personalized care was minimized in favor of carefully developed and universally applied protocols meant to maximize the safety, speed, and efficiency of childbirth (Wertz and Wertz 1977:167). The treatments these women encountered upon hospital admittance were standard, mandatory, and often devised with doctors and nurses' convenience in mind rather than the comfort of women. Wolf (2009:110) describes the typical sequence of treatments women encountered upon admittance:

Upon entering the hospital, women underwent...an enema, shaving of pubic hair, and sometimes labor induction; even when labor was not induced, it was often augmented chemically. Obstetricians were customarily the primary birth attendants but were not normally present while their patients labored. Instead, they arrived shortly before the birth "to deliver" the baby. Virtually all women were heavily drugged throughout labor. The actual birth took place in a surgical suite under full anesthesia. Once the woman was wholly unconscious, her obstetricians performed an episiotomy, applied forceps, removed her baby from her body, and then stitched her up. During the five- to ten day recuperation periods, mothers and babies resided in separate hospital rooms. Nurses brought babies to their mothers every four to five hours for feeding and even then only during daytime hours.

The assembly-line process of birth that became the norm in the late 1940s and 1950s coincided with a decrease in maternal and neonatal mortality rates, thought to be a quantitative demonstration of the major developments in physical safety during birth (Leavitt 1986:187). However, assembly-line birth left many women scared and alone, emerging from labor and delivery wards with tales of the hospital's negligence of their psychological and emotional wellbeing. Women began to share stories of the inhumanity of their treatment during labor:

The practice of obstetrics is the most modern and medieval, the kindest to mothers and the cruelest.... Women are herded like sheep through an obstetrical assembly line, are drugged and strapped on tables while their babies are forceps-delivered. Obstetricians today are businessmen who run baby factories. Modern painkillers and methods are used for the convenience of the doctor, not to spare the mother. [Schultz 1958]

This juxtaposition between increased physical safety and diminished emotional wellbeing was one of the major themes presented in an expose on childbirth practices in the United States published in 1958 by the influential *Ladies' Home Journal*. The article, written by G.D. Schultz and titled "Cruelty in Maternity Wards," painted a dark portrait of the state of maternity care. Stories included accounts of women's arms and legs being strapped down in the lithotomy position for hours with nurses ignoring their cries for help. One woman wrote about how her anesthetist had hit her, "sticking her fingers into my throat so I couldn't breathe. She kept saying, 'you're killing your baby. Do you want a misfit or a dead baby? You're killing it every time you yell for the doctor'" (Schultz 1958). Other stories focused on measures that nurses had taken to "slow up" labor because of inconvenient timing:

When my baby was ready the delivery room wasn't. I was strapped to a table, my legs tied together, so I would "wait" until a more convenient and "safer" time to deliver.... At this point I was incapable of rational thought and cannot report fairly the following hour. When I regained consciousness I was told my baby would probably not live.... She did live.... I am grateful to the doctors and nurses who worked so hard and skillfully to save her. I am grateful that she is alive and happy. I do not believe the treatment I received was intentionally cruel –just "hospital routine." [Schultz 1958]

The article was widely publicized and helped to trigger a new wave of childbirth reform (Wertz and Wertz 1977:179-181). Yet again, women began demanding control over their births. Only this time instead of advocating for increased medical intervention, as was the case of twilight sleep, women became increasingly skeptical towards medical innovation. The harrowing stories of inhumanity in maternity wards coupled with a spreading women's rights

movement resulted in a growing number of women who were determined to “take back control” of their births.

The Rebirth of Natural Birth

The trend in birthing practices throughout the first half of the twentieth century can be characterized by the growing desire of women and their physicians to exert medical control over the inherently uncontrollable process of childbirth through intervention. Although the seeds of change were sown that would lead to the eventual reversal of this trend in the 1930s, it was not until the 1970s that a new wave of birth reform really took off (Wertz and Wertz 1977:173). By the 1970s women were convinced that many of the medical interventions that had become an integral part of obstetrical practice in the United States were often not only unnecessary but also less safe than birth without routine use of medical intervention. Two obstetricians, one English and one French, were particularly influential in the push for obstetric reform and non-medicalized birth that defined the 1970s: Dr. Grantly Dick-Read and Dr. Fernand Lamaze (Arms 1975:132-134,144-146).

Grantly Dick-Read’s philosophy about childbirth was that labor was never meant to be painful, but rather had become painful because of the fear society instilled in women about birth and labor pains (Arms 1975:132). In his influential book, *Childbirth Without Fear*, which was first published in 1944, he promoted the importance of relaxation, trust in one’s own body, and mother-child bonding in order to achieve childbirth without suffering (Block 2008:169). He even went as far as to claim that if all women approached labor without fear, ninety-five percent of them should have little or no need for anesthesia (Wertz and Wertz 1977:152).

The story of Marjorie Karmel provides a paradigmatic example of the effect that the natural birth movement had on women. When Karmel became pregnant with her first child in the 1950s, she did not find the concept of natural birth particularly appealing (Wolf 2009:153). However, during a long boat trip to France, she read Dick-Read's book out of boredom and became so inspired by his method that upon arriving in France she sought out Fernand Lamaze, an obstetrician who believed in the benefits of Dick-Read's method (Wolf 2009:153). Lamaze similarly believed in the ability of women to handle birth without extreme interventions.

But unlike Dick-Read, whose theory was rooted in an idealized notion of the "true woman's" ability to be so in touch with her body as to transcend fear and pain, Lamaze's method, also known as "psychoprophylaxis" (Wertz and Wertz 1977:193), was much more grounded in specific techniques that every woman could use. He argued that by instilling a woman with confidence (gained through Pavlovian-type conditioning that caused the woman to associate labor with the production of a new life instead of pain) was the key to a woman's ability to manage birth and cope with labor pain without general anesthesia (Simonds et al. 2007:24-26).

Karmel was so overjoyed with her birth experience under the care of Dr. Lamaze that she published a book in 1959 called *Thank You, Dr. Lamaze: A Mother's Experience in Painless Childbirth*, which touted the benefits of Lamaze's method. The book quickly gained popularity, successfully mainstreaming the Lamaze method in the United States (Edwards and Waldorf 2009:52). In 1960 Karmel, along with Elisabeth Bing, another proponent of the Lamaze method, founded the American Society for Psychoprophylaxis in Obstetrics (ASPO), which was eventually renamed Lamaze International (Wolf 2009:155-156).

The medical community was at least fairly receptive to certain aspects of the Lamaze method, particularly childbirth education classes and breathing techniques. Women were becoming more informed about their choices in birth and were more comfortable than ever challenging medically established practices if they did not agree with them. On one hand, obstetricians were receptive to the movement because they understood that to preserve their profession, they would need to adapt to this new natural birth movement (Wolf 2009:163). On the other hand, physicians accepted aspects of the Lamaze method because certain evidence seemed to reinforce the benefits of the method (Wolf 2009:163).

The natural birth movement also had the effect of creating a demand amongst middle class women for CNMs. World War II had resulted in a shortage of obstetricians. As the natural birth movement piqued the public's interest in alternatives to physician-attended birth, nurse-midwifery was in a primary position to begin gaining national recognition and acceptance. By the 1950s, CNMs were legal and licensed in all fifty states (Sullivan and Weitz 1988:18). After decades of exclusion, more and more CNMs began being granted access to hospitals as legitimate clinical practitioners. For the first time, nurse-midwives were called upon, not to attend underserved population, but the general public (Dawley 2003: 91-92). CNMs were desirable practitioners for women interested in the natural birth movement because the family-centered values that the natural birth movement fostered were more amenable to the nurse-midwifery model of care than the stereotypical obstetric model. As a result, by the 1960s nurse-midwives not only had more hospital-based training programs than ever before, but also had gained noticeable clinical presence in hospitals throughout the country (Dawley 2003:87-89).

But the growing public acceptance of CNMs as adequate maternity care providers resulted in the absorption of the majority of nurse-midwives into hospital settings.

Independent birthing centers that had previously been operated by nurse-midwives closed (Dawley 2003:92). By the 1970s, along with the incorporation of nurse-midwives into general practices, the natural birth movement had spawned a cohort of women who distrusted the swiftly advancing medical industry, including CNMs (De Vries and Barroso 1997:264-268). These women were eager to avoid hospitalized, medicalized, physician-attended birth all together. They viewed the services that CNMs provided within hospitals as little more than mislabeled obstetrics (Coburn 2008:14). The result was the revitalization of direct-entry midwifery and the home birth movement.

The campaigns against traditional midwives that took place between 1900 and 1930 (Dawley 2000:51) meant that by the 1970s, nearly every state had either passed regulations criminalizing direct-entry midwifery or required that a DEM partner with a physician in order to practice, which physicians were rarely willing to do (Block 2007:213).

Ina May Gaskin became the champion of non-interventionist DEM birth in the 1970s after her husband established a self-sufficient collective named The Farm. Ironically, what The Farm has become most well known for has little to do with Ina May's husband and everything to do with the Midwifery Center founded and directed by Ina May herself.

Gaskin established the Midwifery Center on The Farm in rural Summertown, Tennessee as a holistic alternative to the “predominately male and profit oriented medical establishment” (Gaskin 1978:11). Gaskin structured her Midwifery Center around a philosophy of spirituality and trust of women's bodies in birth, which she describes in *Spiritual Midwifery* (1978). Beginning at its conception, and continuing on until today, The Farm has offered women an unanesthetized home birth alternative to paradigmatic hospital birth –and with impressive results. As of 2012, Gaskin had delivered 1,200 of the 3,000

births at The Farm, with a 1.5 percent cesarean section rate (Edwards and Waldorf 1984:185).

The comprehensive critique of U.S. birthing practices of the 1960s and 1970s prompted many obstetricians to adopt some of the techniques and philosophies of the natural childbirth movement. Arney (1982:236) discusses the “rush of knowledge” that accompanied obstetrics’ response to the natural childbirth movement. “The techniques of natural childbirth simply *had* to be investigated. Everything had to be made known” (Arney 1982:236). There was some beneficial exchange of knowledge, including Gaskin’s introduction of a method for handling shoulder dystocia. The method, now referred to as “The Gaskin Maneuver,” became the first obstetrical maneuver to be named after a midwife (Gaskin 2012).

Additionally, The ACNM revised its statement against home birth in 1980 to support not only “the right of women who meet selection criteria to choose home birth” but also “certified midwives (CMs) as providers qualified to attend planned home births” (American College of Nurse-Midwives 1980).

While the vast majority of births still occur in the hospital, the natural birth reform movement had lasting effects on the culture of birth in the United States. The movement prompted empirical research, which began to support the movement’s claim that a woman’s emotional wellbeing in birth influenced her physical safety (Arney 1982:237). For the first time in the history of hospital birth, husbands were welcomed into the delivery room, women were permitted to hold their babies right after birth, and alternatives to general anesthesia, namely, epidural anesthesia became a commonly available option that allowed women to remain “awake and aware” during delivery (Wertz and Wertz 1977: 234).

Medical Dissent: “Home Deliveries are for Pizzas, Not Babies”

Despite intrigue in the natural birth movement, it was not met without opposition from the medical community. While by the 1970s obstetricians were willing to accept certain changes to maternity care, like allowing husbands into delivery rooms, most were not willing to accept DEMs as safe, legitimate, and professional birth attendants (Coburn 2008:15). By the mid-1970s, ACOG and the American Academy of Pediatrics (AAP) had both released position statements asserting that because labor carried risk, however slight, of sudden life-threatening maternal and fetal complications, that the hospital was the safest, and therefore only appropriate setting for childbirth (Freeze 2010:283). The medical community’s stance on home birth has remained fairly consistent since then. As of 2013, ACOG still actively opposes the legalization of direct-entry midwifery. To illustrate ACOG’s staunch opposition to DEMs, Block (2008:218) cites the 2006 ACOG conference, where one of the items handed out to all attendees was a bumper sticker that read, “Home Deliveries Are for Pizzas, Not Babies.”

The Illusion of Control: Turn of The Century Childbirth

The heated debates over home birth that marked the 1970s began to fade by the 1980s (Wolf 2009:167). The home birth movement had rested upon the notion that by avoiding the grasp of medical protocol and, notably, general anesthesia, women could extend their reproductive choices and autonomy. But the development of modern reproductive technologies like in vitro fertilization in the late 1970s and embryo transfer and genetic engineering in the 1980s demonstrated the medical world’s ability to offer women a more profound level of control than had previously been imaginable (Wertz and Wertz 1977: 240-241).

By the 1990s, both natural and out-of-hospital births were generally uncommon practices. Just as their grandmothers had thought about birth as best handled by physicians who “knew best,” and their mothers had imagined birth as an opportunity to exert female autonomy, women in the 1990s had developed yet another idea about what the best model of childbirth looked like. Wolf (2009:171) discusses how by the 1990s epidural anesthesia was widely available and seemed like “the ideal choice for childbirth, ostensibly offering not only a painless but also a stress-free, even relaxing, way to give birth.” These women believed that they had more choice and control in their lives than any generation before them –they were seeking higher education at the same rate as their male counterparts, full-time jobs outside of the home, and pregnancies that were spaced according to their choosing (Wolf 2009:167). The increasingly accepted belief that nature was controllable and choice was boundless led and continues to lead women to seek what they view as the ideal combination of convenience and comfort in their births (Wertz and Wertz 1977).

The management of birth in colonial America has been shifted, molded, distorted, and redefined throughout the United State’s history. According to the most recent National Vital Statistics Report, 98.8 percent of all American births occur in a hospital, making childbirth the most common reason for hospital admittance in the United States (Martin et al. 2012:13).

The Current State of Maternity Care Services

The terms “midwife” and “home birth” still largely bear the burdens of stigmatization that were cast upon them more than a century ago. Despite the marginalization of midwife-attended birth, the DEM community has recently begun seeing a resurgence in women interested in their services. According to a report published by the

Center for Disease Control in 2012, the rate of home birth in the United States increased 29 percent (from 0.56 percent to 0.72 percent) between 2004 and 2009. Ninety-three percent of those home births were planned (Declercq et al. 2012:13). Although the movement is small, it has afforded midwifery more public attention than it traditionally has had in the past century. A recent article in *The New York Times* even went so far as to call midwife-attended home birth a new “status symbol” (Pergament 2012).

But midwives don’t only attend home births. They practice, depending on state law, in hospitals, homes, clinics, and birthing centers. The freedom midwives have to practice varies depending on a midwife’s qualification has and what state she (or very occasionally, he) practices in. The only midwifery certification that has received countrywide legalization is certified nurse-midwifery.

While obstetricians have never had to deal with issues regarding the legality of their profession, they are currently dealing with stigmatization of a different sort. Obstetrics has gained somewhat of a reputation as a field that frequently has to deal with malpractice lawsuits, which deters many medical students from choosing it as a specialization (Mello and Kelly 2005). Those who do practice obstetrics often are faced with high premiums for malpractice insurance. The national average for premiums was \$79,026 per year as of 2008, although there appears to be a vast range between states, with the lowest premiums costing \$13,400 per year and the highest costing \$204,864 (American Congress of Obstetricians and Gynecologists 2011:30).

According to ACOG’s most recent survey on professional liability (2012), 58 percent of OB/GYNs surveyed had made changes to the way they practice obstetrics between 2009 and 2011 out of “the risk or fear of professional liability claims or litigation” (Klagholz and Stunk 2012). Over the course of their obstetric careers, 77.3 percent of OB/GYNs had

experienced at least one malpractice claim with an average of 2.64 claims per OB/GYN (Klagholz and Stunk 2012). As of 2008, between 6.5 and 8 percent of OB/GYNs had stopped practicing obstetrics all together either because of a fear of being sued or because they could not afford insurance premiums (American Congress of Obstetricians and Gynecologists 2011:29).

Why Missouri?

Missouri has proven to be an incredibly pertinent region for conducting research on maternity care. Because of the geographical variety within the state –from large cities, to suburbs, to rural areas without electricity or indoor plumbing, the maternity care standard for what is acceptable and also *accessible* in terms of maternity services fluctuate quite a bit. Especially in recent years, the status of midwifery has been an exceptionally contentious and highly divided issue –particularly amongst state legislators. This is mainly because of the fact that prior to 2008, practicing direct-entry midwifery in the state of Missouri was illegal.

Legislative History

The push to legalize midwifery in Missouri began in the 1970s, when many states began repealing anti-midwifery laws in response to the progressive natural birth movement (Rooks 1999a:63). But Missouri did not follow suit. By 1980, Missouri was one of only nine states in which DEMs remained illegal (Missouri Midwives Association and Friends of Missouri Midwives 2011:6). The legalization of DEMs would allow prospective midwives to be certified by a private board, either NARM or the AMCB, instead of having to seek formal medical or nursing training. But Missouri law limited the practice of midwifery to CNMs.

For the next three decades, midwifery advocacy groups continually presented bills to the Missouri Legislature in an attempt to legalize direct-entry midwifery. Year after year,

these bills were shot down, often in the Senate due to the threat of filibuster. That is, until May of 2007, when the Senate passed House Bill 818 (Missouri Midwives Association and Friends of Missouri Midwives 2011:6). The bill, which was filed under the title “Health Insurance Portability and Accessibility Act,” included one provision that acted to effectively legalize CPMs:

376.1753. Notwithstanding any law to the contrary, any person who holds current ministerial or tocological certification by an organization accredited by the National Organization for Competency Assurance (NOCA) may provide services as defined in 42 U.S.C. 1396 r-6(b)(4)(E)(ii)(I). [House Bill 818 2007]

The portion of US code cited at the end of the law, “42 U.S.C. 1396 r-6(b)(4)(E)(ii)(I),” refers to all “services related to pregnancy, including prenatal, delivery, and postpartum services” (Missouri Midwives Association and Friends of Missouri Midwives 2011:5). The passage of this provision effectively authorized CPMs to practice in Missouri. Because the word *midwife* didn’t appear anywhere in the provision, it sidestepped the usual threat of filibuster, passing through the legislative process with only a few legislators knowing that the bill included a provision to legalize certified professional midwifery. The sponsor of the bill, Sen. John Loudon, who presented the provision on behalf of the Missouri Midwives Association (MMA) and Friends of Missouri Midwives (FoMM), used the Greek term, *tocology*, to refer to midwifery. According to Gould’s *Pocket Medical Dictionary* (1891:884) tocology is “the science of obstetrics.” Despite the questionable ethics involved in the purposeful omission of the word midwifery, HB 818 effectively decriminalized both the practice and use of midwifery in Missouri homes.

The approval of the bill, while celebrated in the midwifery and home birth communities, was met with a firestorm of criticism from lawmakers and medical organizations. The controversy generated by HB 818 resulted in Judge Patricia Joyce placing an injunction against the provision almost immediately, meaning that the legislation related

to midwifery would not go into effect until an appeal process regarding the legitimacy of the provision was carried out (Strong 2011:9). In her ruling Judge Joyce wrote, “Since the midwife provision does not relate to health insurance and is therefore not encompassed within the title for House Bill 818, the title ‘relating to health insurance’ is underinclusive” (National Partnership for Women and Families 2007). Later on in her ruling she noted that the tocology provision in the bill, “frustrated and was contrary to the legislative process, because the misleading and underinclusive title failed to give legislators and the public fair notice of the subject matter” (National Partnership for Women and Families 2007).

The Missouri State Medical Association (MSMA) brought the case to court, claiming that the HB 818 posed both “profound risks to the health and welfare of Missouri’s citizens” and “legitimate and protectable concern that [obstetricians’] licensure may be placed in jeopardy” (Nelson et al. 2008). After an initial ruling against the provision in the circuit court system, The MMA appealed the verdict to the Missouri State Supreme Court. In a 5-2 decision the Court determined that the MSMA did not have the standing to bring the case to trial and that the Court, therefore, could not respond to the constitutional issues raised during the trial. “Standing,” as described in the majority opinion, refers to the fact that respondents (in this case, the MSMA) “must have some personal interest at stake in the dispute, even if that interest is attenuated, slight or remote” (Limbaugh 2008). Consequently, the Court ruled that physicians could not be subject to disciplinary action for cooperating with unlicensed midwives and that CPMs were legal to practice in the state of Missouri.

CHAPTER 3 THEORETICAL PERSPECTIVES ON BIRTH AND RISK

The concept of birth and risk are hardly concepts that need introduction; they are universal phenomena that play a fundamental role in all of our lives. The pervasiveness of birth and risk make them particularly important subjects for research within the field of anthropology. This is because the phenomena demonstrate just how much culture can influence our understandings of even the aspects of life that seem most constant.

Childbirth as a focus of academic interest has grown immensely since the 1970s – especially within the field of anthropology. This is largely due to the explosion of ethnographic research that followed Brigitte Jordan’s (1993 [1976]) influential ethnography, *Birth in Four Cultures: A Crosscultural Investigation of Childbirth in Yucatan, Holland, Sweden and the United States*. The concepts introduced in *Birth in Four Cultures* have been applied to studies on the social, cultural and biological aspects of birth, and even a number of areas outside the realm of birth. The body of literature that makes up the anthropology of birth today is rich and multidimensional. In many ways scholars have improved upon Jordan’s original work.

In the following chapter I will review the foundational literature that has informed current anthropological understandings of birth and maternity care. I will also discuss sociocultural theories of risk and then describe some of the ways that theoretical perspectives of risk have informed the prevailing understanding of the social construction of birth. The goal of this chapter is to lay down the groundwork necessary to analyze contemporary American maternity care systems –namely midwifery and obstetric models. By the end of this chapter I hope to have revealed that rather than being static aspects of human life, both birth and risk are culturally constructed and defined in ways that intertwine to inform our concept of acceptable maternity care.

Childbirth and Medical Anthropology

Prior to the 1970s childbirth was not a major object of inquiry within the field of anthropology. Aside from a few early ethnographies that explored birth practices within the confines of particular cultures (Montagu 1949; Malinowski 1932), discussions about birth as a cultural event were virtually nonexistent. According to Sargent (2004:224), this is likely due in part to the fact that prior to the 1970s, anthropologists were rarely female. Any interest that male anthropologists may have had in studying birth would have been futile; they likely would not have been able to gain access to birth practices necessary to conduct anthropological research. The 1970s brought with it a number of liberal social movements, most notably second-wave feminism, leading to an increase in the number of female anthropologists and, in turn, heightened interest in pregnancy, birth, and maternity care (Sargent 2004:224). McClain (1975) provided one of the first female-produced ethnographies of birth practices in Ajijic, Mexico. Cosminsky (1976), another female anthropologist, was one of the first to describe the different social position that midwives hold in cultures across the world. Both women provided early contributions to the anthropological concept of birth as culturally dependent (Sargent 2004:224).

But perhaps *the* foundational book in the development of an anthropology of childbirth was Brigitte Jordan's *Birth in Four Cultures* in 1978 (1993). Jordan developed the concept of authoritative knowledge, which she later defines as "the knowledge that within a community is considered legitimate, consequential, official, worthy of discussion, and appropriate" (Jordan 1997:56-58). The development of the concept of authoritative knowledge has proved to be not only an invaluable medium for critically analyzing cultural practices in birth, but a wide range of cultural behaviors and practices. In the case of

American maternity care, this led to a number of criticisms of the standard biomedical management of pregnancy and birth (Gaskin 2008; Davis-Floyd 2003; Martin 2001; Rothman 1982).

Authoritative Knowledge

Jordan's (1992, 1993, 1997) comparative approach to exploring childbirth emphasizes that authoritative knowledge is not a universal, but rather culturally bound to the peculiarities of a given society and based on the social mores that are most celebrated and valued within the culture. In America, a country that places extraordinary value on technology as truth and medicine as progress, we have come to value obstetricians' expertise, entrenched in scientific empiricism, for their exclusive access to, and control over, advanced birthing technology.

Discussions of authoritative knowledge and just as importantly, bodies of knowledge that are not considered authoritative within a culture, have had great anthropological value in illuminating the power relations that bolster conflicting *ways of knowing* about birth (for ethnographic accounts see, Sargent and Bascope 1996; Davis-Floyd and Sargent 1997). While Jordan (1997:56) notes that, "equally legitimate parallel knowledge systems" can, and do coexist, she says that often one way of knowing rises to a position of legitimacy, reducing alternative knowledge systems to being perceived as "backward, ignorant, and naïve" and reinforcing "the current social order as a natural order, this is, the way things (obviously) are."

In American maternity care, biomedicine, and more specifically, obstetricians, have been the gatekeepers of authoritative knowledge for the last century (see Chapter 2). The adage, *doctor know best* comes to mind, and in pregnancy, authoritative knowledge had

reinforced this as especially true. The physician's knowledge is official, sanctioned by society and the state, and therefore valuable. Physicians' authoritative birth knowledge has created perhaps more than a system of "natural order." As Jordan (1993) suggests, it is a system of near uniformity: as of 2010, 98.8 percent of women give birth in a hospital, under either direct (86.3 percent) or indirect care of a physician (Martin et al. 2012).

Another important aspect of authoritative knowledge is that the actual truth-value of knowledge is not necessarily related to its position of social power. Jordan (1997:58-59, 1993:153-154) is careful to note that *authoritative* neither implies that the person possessing the knowledge be in a position of authority, nor that the knowledge be evidence-based; it only implies that within sociocultural boundaries, the knowledge is valued as superior and trustworthy. Jordan (1993:154) explains, "*The power of authoritative knowledge is not that it is correct but that it counts.*" A number of studies have indicated that past and present beliefs used for developing standards of maternity care are not entirely grounded in objective or accurate evidence, but rather driven by both a hegemonic biomedical perception of risk and safety and midwifery-driven values of *naturalness* and *unnaturalness* in birth (Davis-Floyd 2000; Saxell 2000; Goer 1995).

Authoritative knowledge has a profound influence on prevailing perceptions of what is risky in birth and what is not, as well as how risk reduction is suitably managed. Lyster et al. (2009) discuss the influence of biomedical knowledge systems on women's experiences throughout pregnancy and childbirth and concludes, "Too often, current practices reflect reasoning that is governed more by dread than by evidence. In birth, no less than in life itself, there is an irreducible element of risk... Which [risks] strike us as acceptable and which as reckless in the context of pregnancy, in short, may turn in part on social relationships, power dynamics, and who, exactly, is being inconvenienced by the burden" (Lyster et al.

2009:40). Those with authoritative knowledge often determine what is acceptable in pregnancy and birth and thus, have great power to influence behavior in systematic ways.

Davis-Floyd and Davis (1996) and Gaskin (1996) discuss intuition as a source of authoritative knowledge. They both describe intuition as an important source of knowledge for a midwife that is not given the same sociocultural legitimacy as the authoritative biomedical knowledge associated with obstetrics Davis-Floyd and Davis (1996:240) describe intuition as the non-conscious aspects of an individual's cognitive experience that leads that individual to a belief based on nonrational insight that the individual not only considers accurate, but also may in fact prove to be correct. Gaskin (1996:295), who speaks from personal experience writes that she had long felt that her "intuition was sometimes more trustworthy than the accepted obstetrical knowledge about pregnancy and birth." Later she explains the validity of intuition as a source of authoritative knowledge by suggesting that, "the subconscious mind is able to pick up signals too subtle to be perceived by the conscious mind" (Gaskin 1996:296).

Different ways of knowing about birth in the United States, from biomedical to intuitive, exist along a continuum, not a strict dichotomy of knowledge that is considered either culturally valid or invalid. Daviss (1997) describes another framework for understanding how different sources of knowledge are entwined within the Canadian Inuit. She describes eight sources of logic (which she believes is similar to Jordan's concept of authoritative knowledge) and explains how they can be used to understand how different ways of knowing guide thoughts and actions associated with birth. The types of "logic" she cites are: scientific, clinical, personal, cultural, intuitive, political, legal, and economic (Daviss 1997:443). Daviss' (1997) classification system illuminates the complex web of factors that influence perceptions of birth.

Birth as a Rite of Passage

A number of anthropologists have argued that the time period from conception to birth is one that is highly culturally transformative for the woman going through pregnancy. The highly transformative nature of birth has led a number of anthropologists to study the phenomenon as a pragmatic application of Van Gennep's interpretation of a rite of passage.³ Van Gennep (1960[1909]) discusses rites of passage in terms of three distinct phases: separation, transition (also known as *liminality*), and incorporation. In the American birthing paradigm, particularly for nulliparous women, separation occurs when a woman discovers her pregnancy. She then enters a phase of liminality, which is characterized by a high degree of uncertainty. The woman is defined by her pregnancy but is, to Victor Turner's (1964) term, "betwixt and between" two social groups, stuck in a sort of identity limbo. She has not yet been fully accepted into motherhood, but can no longer identify with her previous position in society as a singleton. The third phase occurs once the woman completes the rituals required for the rite of passage –in this case birth. Once the rite is completed, she reenters society, assuming her new position as mother (Van Gennep 1960).

Davis-Floyd describes the system of American maternity care as a rite of passage that consists of a number of rituals that successfully, "align the belief system of the individual with that of the social group conducting the ritual" (Davis-Floyd 2003:10).⁴ She argues that America's dominant model of maternity care is culturally constructed through the use of

³ Van Gennep (1960) defines *rite of passage* as a culturally-bound phenomenon this is composed of a number of rituals that are used to mark an individual's progress from one social position in society to another –for instance, from womanhood to motherhood.

⁴ Victor Turner (1977:183) defines *ritual* as, "a stereotyped sequence of activities...performed in a sequestered place, and designed to influence preternatural entities or forces on behalf of the actors' goals and interests."

symbolic ritual to “reflect and reinforce the core values of our society...[by transforming]...the mother in ways that reflect her orientation to those core values and the technocratic belief system that underlies them” (Davis-Floyd 2003:305). She calls this symbolic, authoritative, and biomedical system the *technocratic model of birth* (2003:44-74). Scully (1980) and Davis-Floyd (1987) further apply the notion of rituals and rites of passage to the training that medical students undergo when preparing to specialize in obstetrics, exerting that medical education emphasizes obstetricians’ role as reinforcers of core American values throughout the process of pregnancy and birth.

In their discussion of birthing behaviors as ritualistic, Sargent and Bascope (1996:213-236) note that although there is usually a very low level of variation in ritualistic behavior within any given cultural system, there is often a great deal of variation between cultures. This feature of ritualistic behavior has been used as evidence to support to notion of birth as a rite of passage in America, where the vast majority of births are hospitalized and largely standardized through institutional guidelines and protocols.

Biopower

Social theorist Michel Foucault has made a number of important contributions to the literature within the social sciences, particularly in his analyses of governmentality, power, knowledge, and the state. But it is his concept of *biopower* (Foucault 1976:140) that has proven particularly useful in anthropological examinations of medical systems. Hakosalo (1991:9) explains biopower as the ways in which a state harnesses control of its citizens through the development of power mechanisms that regulate citizens’ health and bodies. In this way, Foucault argues that knowledge and power relations become inextricably intertwined. He suggests that mechanisms of power are clearly present in therapeutic systems

and vitally important to understanding them as they act to define the human body as a manageable object that can be “subjected, used, transformed and improved” (Foucault 1991:136). Groups in power thus have profound effects on the social construction of risk perception and determination of which risks are considered acceptable and which are not (Harthorn and Oaks 2003:5).

In regard to risk perception and health, Chua (2003:166) describes how biopower influences “social regulation and risk construction, the non-symbolic processes and practices that shape the perception and communication of risk, and how they in turn imbue material and objects with meaning.” Nichter (2003:30 n.9) adds, “Knowledge about risk makes social institutions as well as individuals accountable.” The influence of biopower is evident in maternity care in regards to reactions that are considered appropriate from women based on what their physicians tell them. For example, within maternity care in the United States, once a woman is informed that a certain behavior is risky, she is given *choice* to proceed however she sees fit, but is *expected* to react in culturally defined appropriate ways to reduce that risk by changing her practices.

Social Theories of Risk Perception

The concept of risk has become a topic of considerable anthropological interest over the past half century. Attention to this subject is largely the result of Mary Douglas’ (2003[1966]) book, *Purity and Danger*. Her book provides a now classic exploration of how categories of safe behavior are socially constructed and analysis of the tendency for perceptions of danger and blame to be attached to external sources. She has since published a number of books and essays on the cultural construction of risk, notably *Risk and Culture* (1982), which she co-authored with political scientist Wildavsky. Douglas and Wildavsky

(1982:10) develop a cultural theory of risk as well as applications of their theory that explains, “the sudden, widespread, across-the-board concern about environmental pollution and personal contamination that has arisen in the Western world in general and with particular force in the United States.”

The cultural theory of risk offers a model for explaining why variation in risk perception arises. In a way reminiscent of Jordan’s (1993) theory of authoritative knowledge, Douglas and Wildavsky (1982) argue that risk perception is not objective, but rather built upon thoughts, beliefs, and social constructs, which are influenced by cultural norms and social groupings. Oltedal et al. (2003:11) argue that because different elements of risk can be made more or less salient to different groups and individuals, personal estimates of what is safe and what is risky in childbirth can stray significantly from objective estimates.

Douglas posits that cultural theory can provide a way of understanding why certain groups of people tend to identify certain risks as hazardous while ignoring other risks all together. Wildavsky and Dake (1990:42) go as far as to claim that cultural theory has predictive power –that is, it can “predict and explain what kind of people will perceive which potential hazards to be how dangerous.” While the predictive power of the cultural theory of risk has been brought into question through a number of empirical studies (Wilkinson 2001; Sjöberg 1997; Boholm 1996), Wilkinson (2001:15-16) calls the theory “an indispensable means by which we may come to make sense of the meaning of the cultural complexities revealed through empirical research.”

In addition to Douglas, Ulrich Beck (1992[1986]) argues that there is a connection between the public’s growing lack of trust in scientific technology and governments and increased sensitivity to risk perception. Beck (1992) used the term *risk society* to explain the ways in which contemporary societies organize in response to risk.

Lupton (1994, 2012[1999]) has also provided important contributions to theories on the social construction of risk. In her book, *Risk* (2012) she argues that discussions of risk are more prominent in contemporary societies than have been the case historically, and seeks an explanation as for why this might be. She constructs a continuum that ranges from weak to strong social construction to categorize different ways of conceptualizing risk (Lupton 1999:25-36). The weak social constructionist perspective emphasizes that there is a certain objective quality to risks; there are perceived risks and *real* risks (Lupton 1999:29). On the other end of the spectrum is the strong constructionist perspective, which conceptualizes risk as “never value free), but rather socially and based on factors like power relations and group membership” (Lupton 1999:30-31). She places Becks’ theory of risk towards the weak constructionist end of the spectrum and Douglas’ view towards the strong constructionist end, arguing herself for an intermediate perspective (Lupton 1999:25-36).

Wildavsky and Dake (1990) ask why certain risks are emphasized while other, similarly empirically hazardous risks, are virtually ignored. They claim that “individuals choose what to fear (and how much to fear it), in order to support their way of life,” adding that, “selective attention to risk, and preferences among different types of risk taking (or avoiding), correspond to *cultural biases* –that is, to worldviews or ideologies entailing deeply held values and beliefs defending different patterns of social relations” (Wildavsky and Dake 1990:43). A useful example to illuminate what Wildavsky and Dake mean by “selective attention risk” is to look at the risks that people associate with flying versus driving. It is no secret that the likelihood of dying in a car accident is much greater than the risk of dying in an airplane crash. In fact, according to the National Safety Council in 2008, the odds of dying in a motor vehicle accident were 1 in 98. The odds of dying in an airplane crash were 1

in 7,718 (Locsin USA Today). However, for many that doesn't make the prospect of flying any less daunting.

A number of other theorists have discussed the many interwoven social, cultural, and political factors that influence the development and reinforcement of risk perceptions within particular societies (Caplan 2000; Slovic 1999; Nelkin 1989; Freudenburg 1988; Slovic, Fischhoff and Lichtenstein 1982). The common thread tying the majority of the risk literature together is the general concurrence that risk is, at least to some extent, subject to sociocultural beliefs, values, and biases.

Lyerly et al. (2009), Freeze (2008), and Symon (2006) all provide excellent discussions of how the social construction of risk can be applied to maternity care. For example, Lyerly et al. (2009:38) discuss a fascinating pattern of risk perception reversal that they believe occurs between pregnancy and parturition. They claim that throughout pregnancy, physicians' instructions tend to revolve around urging women to abstain from any behaviors that may pose a risk to the fetus –to avoid certain medications, radiation exposure, and so on. However, the authors suggest that this non-interventionalist approach is reversed when it comes to the medical management of birth: no longer is the risk of intervening seen as particularly significant; rather the risks and results of *failing* to intervene are most saliently perceived:

When it comes to pregnancy, it turns out, [physicians and their patients'] attitudes toward medical intervention are Janus-faced. With nonobstetrical care of pregnant women's health, the tendency is to notice the dangers of intervening without seeing the dangers of nonintervention; with birth, the idea of not availing ourselves of all possible interventions is what strikes as dangerous, even when those interventions can themselves be the source of danger. [Lyerly et al. 2009:35]

The authors claim that this tendency is largely systematic within the technocratic model of birth and seems to correspond to ideologies inherent in the prevailing model of biomedical

healthcare. Theories that claim that risk is socially constructed, like Lyerly et al.'s (2009), explain patterned behavior in maternity care as illustrations of the underlying deeply held cultural values that hold the authoritative biomedical system of knowledge together.

Conceptualizing Safety: Medicine-as-Progress

The alarming disparities between developed and developing nations' maternal and neonatal mortality rates are often cited as evidence for why birth is safest in a hospital setting.⁵ The correlation between industrialization and maternal and neonatal outcomes is a clear and consistent trend, which appears to be related to a country's ability to provide its parturient women with trained, educated professionals to assist in birth and accessible, reliable emergency hospital services to intervene in emergencies. This was certainly the case with the United States' maternal and neonatal mortality rates, which did not begin dropping precipitously until the 1930s, just around the same time that hospital births were becoming the norm (Wertz and Wertz 1977:133,164). One common explanation for this trend, which Beckett and Hoffman (2005:151) refer to as the *medicine-as-progress* narrative, posits that the development and implementation of modern obstetrical care was responsible for the improvement in maternal and neonatal mortality rates that American began to see in the 1930s (Additionally see Loudon (1993) for an international systematic analysis of the effectiveness of different models of maternity care around the globe).

⁵ According to the most recent WHO, UNICEF, UNFPA and World Bank estimates of maternal mortality ratios from 1990 to 2010, in developed regions the ratio is 16 maternal deaths per 100,000 live births. In developing regions that ratio jumps to 240 deaths per 100,000 live births. This makes a woman's lifetime risk of maternal death in developed countries 1 in 3,800 versus a whopping 1 in 39 in developing countries. The contrast is even starker when individual countries are compared (World Health Organization et al. 2012).

The medicine-as-progress narrative is often expanded to suggest that because developments in obstetrics are correlated with maternal and neonatal mortality declines, that home birth, which naturally represents a distancing from those “developments of progress,” creates unnecessary risk, endangering both the woman and child involved (Freeze 2008:201). Thus, much of the medical community, including ACOG, oppose direct-entry midwifery because of its association with home births on the grounds that DEMs lack the progressive medical training to handle emergencies that may arise in birth. Tjaden (1987) and Weitz and Sullivan (1986) both provide good case-study analyses of how legislation regarding DEMs and home birth are typically received by state legislatures. Beckett and Hoffman (2005:153) sum up the argument often made by lobbyists saying, “the implicit, and sometimes explicit, logic...of [their] argument is this: Because hospitals house well-trained and highly educated doctors and medical technology, and because doctors and technology save lives, out-of-hospital birth must be unsafe.”

To a certain degree, this line of reasoning is logical: access to medical care for pregnant women who develop life-threatening complications is invaluable in reducing maternal and neonatal mortality. A clear example of the important role that medical care plays in reducing mortality was dramatically demonstrated in a study conducted by Kaunitz (1984) that examined the maternal mortality rates of otherwise healthy and robust American women who belonged to a religious sect that forbade them from seeking any kind of medical care. The pregnancy-related mortality rate amongst these women was 872 deaths per 100 thousand live births (Kaunitz 1984:826). That stands in harsh contrast to the most recently published national average of 15.1 deaths per 100 thousand live births (Berg et al. 2010).

While access to obstetrical care is indispensable to a woman’s safety in birth, , Freeze (2008) claims that when physicians speak of safety, they tend to place the majority of their

focus on maternal and infant mortality and morbidity rates. Often lacking from such discourses are discussion of the mother's psychological and emotional wellbeing or the risks of utilizing medical interventions, like epidural anesthesia. In an effort to illustrate the medical community's weariness in concentrating too much on emotional wellbeing because of its potential conflict with the outcomes of a delivery, Freeze (2008:205) quotes one American physician who said, "We don't believe in taking an added risk in order to satisfy an emotional need." Midwives, on the other hand, are often deeply entrenched in the belief that a woman's emotional wellbeing is as pivotal a safety issue as physical wellbeing and should remain a priority throughout the management of pregnancy and birth.

An Alternative Approach: The Midwifery Model of Care

A different approach to maternity care is the holistic model of birth (sometimes called the social model), which Davis-Floyd (1993:13) describes as "an approach that stresses the inherent trustworthiness of the female body, communication and oneness between mother and child and within the family, and self-responsibility." This is the approach adopted by the midwifery model of care. The physiological processes of pregnancies, labors, and births are not seen as inherently dangerous, but rather treated as normal until there is indication to suggest otherwise (Rooks 1999b).

In 1996, the Midwifery Task Force (MTF), composed of representatives from MANA, NARM, MEAC, and Citizens for Midwifery (CfM) collaborated to write a definition that could be nationally accepted as the standard of care all midwives offered to women. Their definition is now known as *The Midwives Model of Care* (Midwifery Task Force 1996) and "is based on the fact that pregnancy and birth are normal life processes." The model emphasizes that all midwives should be committed to:

- Monitoring the physical, psychological, and social well-being of the mother throughout the childbearing cycle
- Providing the mother with individualized education, counseling, and prenatal care, continuous hands-on assistance during labor and delivery, and postpartum support
- Minimizing technological interventions
- Identifying and referring women who require obstetrical attention

The definition concludes by explaining that using The Midwives Model of care has been “proven to reduce the incidence of birth injury, trauma, and cesarean section (Midwifery Task Force 1996).

While both the medical and midwifery models of care place a great deal of emphasis on maintaining health and safety throughout pregnancy and birth, the focus on how health and safety is maximized in birth is different. The midwifery model of care tends to view safety in a woman-centric way, focusing on the importance of female empowerment and autonomy for safe births. Obstetricians are trained to recognize pathology, thus much of their model of care is focused on predicting, preventing, and treating potential complications that can arise throughout pregnancy and birth.

It is important to note that most discussions of the midwifery model of care within the anthropological literature tend to conceptualize it as complementary to the medical model –not a complete replacement of it. Rooks (1999b) explains the complementary nature of the two models by noting that, “physicians are experts in pathology and should have primary responsibility for the care of pregnant women who have recognized diseases or serious complications. Midwives are experts in *normal* pregnancy and in meeting the *other* needs of pregnant women –the needs that are not related to pathology” (Rooks 1999b:370).

While theoretically the midwifery model of care is complementary to the obstetric model, a functionally integrated maternity care system has yet to be realized in the United States. While there are certain pockets where a complementary model of maternity care has

thrived, for the most of the United States, including Missouri, the system is still largely separated between the home birth and hospital birth communities. In the following chapter I will take a closer look at how the theoretical perspectives discussed in this chapter can inform an understanding of maternity care, hopefully illuminating some plausible explanations for why such a dichotomized system of maternity care persists.

CHAPTER 4 RISK PERCEPTION IN MATERNITY CARE

We live in a world of risk. But paradoxically, as the number of technological advancements promising to *reduce* risk have increased, the more people seem to be preoccupied with worries about risk. Nelkin (2003) suggests that risk and, more specifically, risk aversion, has become one of the defining cultural features of our society. This seems to be especially true of discourses surrounding American maternity care: pregnancies are classified into risk categories—a woman is either high-risk or low-risk; prenatal genetic testing is a common obstetrical procedure that determines whether a fetus is at risk for being affected by a genetic abnormality (Hunt and de Voogd 2005); women are cautioned to avoid an ever-changing laundry list of foods, behaviors, and activities to minimize their risks during pregnancy—from smoking cigarettes to eating soft cheese, consuming deli meats to taking depression medication (Walsh 2006). In our technologically advanced society, the expectations that professionals should be able to provide women with a complication-free birth and a perfect child are high. Thus, when expectations are *not* perfect or when complications do arise, the tendency is to look for someone to blame. From a practitioner's standpoint, this has made minimizing the risk of complications a vitally important aspect of the care they provide, for both their own sake as well as the sake of the women they care for.

Much of this recent focus stems from the medical community's emphasis in prenatal care on “predispositions,” that is, inherent traits that put a woman at-risk for developing a particular illness or complication during pregnancy or delivery (Lock 2001). Predispositions emphasize anticipating risks of pathology before symptoms exist and treating pregnancies that currently appear healthy as potentially pathological. Lock (2001) and Casel (1991) have both argued that the predictive power that physicians have to determine *future* risks gives

them authority to assert a particular course of action or intervention based on risks that women themselves would not normally perceive.

But how are risks defined in maternity care? Who is responsible for regulating and making decisions regarding risk? Who determines which risk-taking behaviors are acceptable and which are reckless? In the following chapters I will address these questions and suggest that maternity care practitioners' risk perceptions influences and are influenced by inextricably linked social, cultural, and political contexts that confine the environment the perceiver exists within. The purpose of this chapter is to illuminate the ways in which practitioners define and construct risk and show how that directly influences the methods they view as acceptable for managing and reducing risk.

What *is* Risk?

Risk is an elusive concept to define, particularly in the context of health. To be sure, risk can be, and often is understood as McLaughlin (2001:352) defines it: a purely statistical and objective measurement of the likelihood of a particular outcome. But in recent years there has been a growing awareness, especially in the social sciences, that risk cannot be understood as an isolated phenomenon –it is a socially, culturally, and politically imbedded concept (Walsh 2006:90).

In order to begin addressing questions about risk perception, it is essential to first understand the distinction between *objective* risk and *perceived* risk (Freudenburg 1988). Oltedal et al. (2003:11) describe objective risk as a theoretical construct that exists entirely in isolation from influence, bias, and belief. Risk in this regard can be defined as “statistical probability of an event’s occurring within a population” (Harthorn and Oaks 2003:4). For instance, as discussed in Chapter 3, the lifetime risk of dying in a car crash (1 in 98) and the

lifetime risk of dying in an airplane crash (1 in 7,718) are objective risks. Perceived risk, on the other hand, has been the focus of much research within the social sciences as it is subjective –it is framed by cultural norms, authoritative knowledge systems, values, and worldviews. To continue the example from Chapter 3, the *perceived* risks of airplane crashes are often seen as much greater than car crashes, even though there is a far higher *objective* risk of dying in a crash on the way to the airport than in flight.

Analyzing risk perception in the context of healthcare is profoundly important as it influences “definitions of risk, allocations of responsibility and blame, evaluations of scientific evidence, and ideas about appropriate decision-making authority” (Nelkin 2003:viii). The risks perceived in maternity care are susceptible to this subjectivity.

Unpacking the risk discourse in childbirth is particularly convoluted because birth is a unique life event in the sense that it is pervasive and usually physiologically normal, but also carries with it the potential for fatal maternal and fetal complications. Thus, it straddles what some focus on as primarily a normal life event and what others focus on as a life event entrenched in predispositions to pathology. Analyzing beliefs about pregnancy and birth is a fertile ground for a dynamic exploration of how different sources of knowledge and meaning influence and are influenced by OB and CPMs perceptions of risk.

Constructing Risk

In Chapter 3 I discussed evidence that suggests that risk perception is influenced by culturally dominant (or, to use Davis-Floyd’s term, authoritative) belief systems. With this in mind, how can we interpret the ways in which risk is constructed through standards in contemporary American maternity care? It is important to remember throughout this discussion that risk construction is not a one-size-fits all phenomenon –there is horizontal

and vertical variability both within and across groups of practitioners as well as between care-seekers, care-practitioners and birthing institutions. But it is also important to keep in mind that not all interpretations of risk are created equal. Slovic (1999) makes the astute observation that whoever controls the construction of risk also has great power to control the solutions that are available and acceptable to reduce risks. In American maternity care there is no doubt that the medical community, backed by its technocratic model of birth and a medically-oriented understanding of human biology, controls the standard of acceptability when it comes to risk perception in childbirth (McLaughlin 2001; Lippman 1999).

An active awareness of the risks in pregnancy and birth is not irrational –a certain amount of risk is irreducible in birth; Agustsson (2006:102) refers to this as the *no zero-risk factor*. Childbirth is an undeniably risky event. Any lingering doubts regarding this risk can be eliminated certainly by the disconcerting disparities between maternal mortality outcomes in developing and developed nations (see Chapter 3). While risks exist, how those risks are constructed and valued vary considerably.

Obstetrics has tended to focus on *anticipating* pathology by relying on physiological markers to indicate a pregnancy may be high-risk. There are a number of factors that OBs use to determine if a pregnancy is high-risk. An example of quantitative point system often used by OBs is included in Appendix B. Risks are thus inextricably intertwined with pathology; pregnancy consists along a continuum of risk. This construction of risk makes sense for physicians: it places the focus on proactively diagnosing risk factors and making plans for managing those risks accordingly –exactly what physicians are trained to do (Brooks 2006). Kennedy (2006:14) discusses this obstetric approach, painting a picture of OB care that illustrates how obstetric practice is influenced by the medical construction of risk:

The clinician will manage risk by undertaking an assessment of the patient's condition, involving analysis of medical history, evaluation of risk factors and agreement of objectives. This gives rise to a treatment plan that is designed to meet those objectives, by combating identified threats to the wellbeing of the patient, followed by a post-treatment monitoring regime designed to meet the needs of that patient.

In a very Foucauldian sense, the authoritativeness of scientific knowledge has far-reaching influences on individual and societal interpretations of risk. Edwards and Murphy-Lawless (2006:37) argue that the construction of risk in this regard is entirely dependent on scientific thought: "Science and scientific authorities...[send] out a critical message...that science alone can be the judge about risk and that science alone can accurately measure what risk is in an objective rational way." The medical construction of risk guides the choices available to women by predetermining what the most responsible decisions are to reduce risk. Because scientific thought is seen as authoritative, objective, and in the woman's best interest, any decision a woman makes that conflicts with the biomedical paradigm is seen as reckless and unacceptably risky. Beck (1992:71) goes even farther to suggest that, "so long as risks are not recognized scientifically, *they do not exist* –at least not legally, medically, technologically or socially and thus are not prevented, treated or compensated for."

Legal Construction

This is certainly true of the legal construction of risk in birth, which in turn drives malpractice insurance policies and medical malpractice claims. Medical malpractice is an "act" or "omission" by a healthcare practitioner that "deviates from accepted standards of practice" and causes injury to the patient (Four Elements of Medical Malpractice 1997). Legal standards for malpractice require a patient's attorney to indicate that a negative obstetrical outcome –be it an injury to the mother, fetus, or both, was directly caused by a physician's negligence. There are four elements of negligence that must be established in a malpractice suit in order to demonstrate that professional malpractice occurred:

1. A duty was owed - a legal duty exists whenever a hospital or health care provider undertakes care or treatment of a patient.
2. A duty was breached - the provider failed to conform to the relevant standard of care. The standard of care is proved by expert testimony or by obvious errors.
3. The breach caused an injury - The breach of duty was a proximate cause of the injury.
4. Damages - Without damages (losses which may be pecuniary or emotional), there is no basis for a claim, regardless of whether the medical provider was negligent. [Four Elements of Medical Malpractice 1997]

In terms of the construction of risk, the second element of professional negligence is particularly important. It legitimizes—in fact necessitates, particular constructions of risk.

Abiding by the empirically quantifiable biomedical standard of care, which values intervention over nonintervention, is legally constructed in the United States as the superior mechanism for risk reduction and the *only* mechanism for avoiding blame, for *all* maternity care practitioners. This reinforces biomedical knowledge as authoritative and importantly, other forms of knowledge used by midwives, like intuition, as unacceptable and altogether useless as a defense in a U.S. court of law (Davis-Floyd and Davis 1996).

Media Construction

Contemporary trends—particularly in areas as salient as television, movies, and celebrity pop culture, also impact consumers’ understanding of what is safe in childbirth and what is not. The media has the ability to wildly overstate the relevance and likelihood of certain risks while minimizing others. Theorists have called this phenomenon, which has remained a cogent force in shaping childbirth practices throughout America’s history, the *social amplification of risk* (Inhorn 2003; Pidgeon et al. 2003; Slovic 1992). Indeed, historical evidence suggests that social amplification of risk (as well as social minimization of risk) substantially influences trends in maternity care, sometimes even in direct opposition to “professional” opinion (See for example, the discussion of Twilight Sleep in Chapter 2).

American pop-cultural trends have introduced divergent interpretations of risk in childbirth. On one hand, movies, magazines, and TV “reality” shows like *I Didn't Know I Was Pregnant* and *A Baby Story* tend to focus on portraying labor as a painful and frightening event, full of gore and potential life-threatening medical complications (Walker 2012).

On the other hand, the wide media coverage of celebrities like Karolina Kurkova and Gisele Bundchen’s decision to have midwife-attended births has glorified the notion of midwifery and home birth. As a recent article in *The New York Times* claimed, midwives are becoming the “enlightened, more natural choice for the famous and fashionable” that produces healthy and happy babies and “impossibly gorgeous mothers” (Pergament 2012).

The recent attention that midwifery has received, particularly in response to Abby Epstein and Ricki Lake’s pro-midwifery documentary, *The Business of Being Born*, has been palpable –that same New York Times article even questioned whether “midwives [were] becoming trendy, like juice cleanses and Tom’s shoes” (Pergament 2012). While Pergament’s query is not a literal one, it is not quite as flippant as it sounds: The CDC recently published data that indicates that midwife-attended home births are on the rise. According to the CDC, the home birthrate increased by twenty-nine percent between 2004 and 2009. While the increase represents a very small minority (0.56 percent to 0.72 percent), the relative jump is a useful trend to watch when trying to gauge the evolution in consumers’ perceptions of risk in birth (Declercq et al. 2012).

But of course, the power behind the social amplification of risk does not come from its existence in isolation. Risk perception is constantly being shaped by top-down influences from practitioners, lawmakers, and insurance agencies as well as bottom-up influences from women, their families, and their observations of pop-cultural trends. According to Beck (1992) and Lash and Wynne (1992), this two-pronged characteristic of risk perception opens

the door for “non-experts” (as defined through the prevailing systems of authoritative knowledge) to question the validity of scientific evaluations of risk in childbirth (Edwards and Murphy-Lawless 2006:38).

Thus, despite a dominant model of risk construction, it would be a gross oversimplification to presume that just because certain risks are made particularly salient in American maternity care, that they are unanimously accepted as the risks that *matter* in birth. A number of dimensions outside the scope of obstetrics and biomedical knowledge have influenced risk perceptions in birth. The midwifery model of maternity care incorporates some of these dimensions (as well as, of course, some of the same biological dimensions as obstetrics), and thus espouses a different construction of risk in childbirth

Reinforcing Risk

From the words used when discussing birth and maternity care, to the hospital and national professional organizations that constrain obstetric practice, the whole infrastructure that holds up American healthcare is built to reinforce certain notions of risk. As the previous section demonstrated, standards of maternity care are mutually constructed by a variety of forces, stemming both from within and outside the healthcare system. Before turning to a discussion of the midwifery model of care, which constructs risk differently, I would like to first look at some of the mechanisms that act to reinforce the biomedical interpretation of risk.

The Language of Risk

The language of risk in pregnancy and birth permeates both lay and biomedical discourses. As the previous section demonstrated, many physician-patient interactions, particularly in prenatal care, are focused on risks: determining what they are, how to manage

any that arise, and how to minimize the likelihood of negative outcomes. The language people use to speak about pregnancy and birth both impact and express their worldviews regarding the process. While cognitive linguists have most famously demonstrated this phenomenon through the Sapir-Whorf hypothesis on linguistic relativity, studies by anthropologists (for examples, see Hill and Mannheim 1992 or Everett 2005) and philosophers (see Leavitt 2011) have affirmed the important role that language plays in perception.⁶ Importantly, Korzybski (1958:90) illuminates how the role that language plays in influencing perception is often subconscious:

We do not realize what tremendous power the structure of a habitual language has. It is not an exaggeration to say that it enslaves us through the mechanism of [semantic reactions] and that the structure, which a language exhibits, and impresses upon us unconsciously, is automatically projected upon the world around us.

According to Ortendahl (2007), the risk-oriented lexicon adopted by the obstetric community is constructed to benefit women and fetuses through safeguarding their health and wellbeing. But language oriented around risk, danger, and pathology imposes a particular worldview on consumers. The obstetric worldview reinforces feelings of fear and uncertainty in pregnancy and birth, while elevating the biomedical system to a position where it holds the power to diminish risks and fear through intervention (Ortendahl 2007:53-55).

Teaching Risk

Considering the nature of medical training, it is no surprise that OBs are acutely aware of what can go wrong throughout pregnancy and labor. They have been trained to recognize signs of potentially disastrous complications and exposed to pregnancies where

⁶ According to Swoyer (2010), the Sapir-Whorf hypothesis holds that the construction of language affects cognitive processes that in turn, influences the ways in which people think about and make sense of their world. This view, which is named for the two linguists who popularized it, is now often referred to simply as *linguistic relativity*.

such complications have arisen. They are acutely aware that however rare a risk is, it can and *does* occur in birth. OBs are, after all, the only professionals with the medical training necessary to surgically intervene when pregnancies become pathological.

A common trend when discussing risk perception with OBs is a tendency to think back to their medical training when explaining why they perceive certain risks as particularly risky. For example, in one of my interviews with an OB, she started telling me about what she thought the differences in midwifery and obstetrical education were. She circled back a number of times to the idea that the extensive training OBs undergo reinforces how important it is that they be able to recognize problems in labor quickly and intervene promptly. She explained to me why she thought this educational focus was necessary:

When it comes back to it, we do have more book training than [midwives]. You know, people will say, “You should’ve known –this is why you went through four years of medical school and four years of medical training.” You are the interventionist. If anyone is going to intervene to save, it should have been you. In the end...I’m always the end of the game. [Interview with author, January 30, 2013]

Just as the OB suggests, all doctors –including obstetricians, are trained interventionists. The effect of being trained to look for risk factors is broader than just reinforcing that obstetricians maintain a certain understanding of risk. It also establishes a standard of practice that dictates how obstetricians should respond to risk symptoms that present in labor (Smith 1992). The medical standards for responding to risk dictates how courts define malpractice, insurance companies determine coverage, and how bureaucratic governing bodies develop standards of care.

Re-Constructing Risks: An Alternative View

The medical gaze places its focus on a set of risks that are definable, observable, and to them, objective. In a society that is so enthralled by science, technology, and control, it is perhaps no surprise that it is this set of risks that is most salient in American maternity care. Crawford (2004) remarks that the dominant American construction of risk in birth has led consumers to fear risks that, in reality, are exceedingly rare. He goes even further to suggest that the converse is true as well: that cultural standards have resulted in consumers minimizing and sometimes even ignoring what he believes to be the truly dangerous risks of childbirth (Crawford 2004:524). The midwifery model of maternity care offers a very different interpretation of risk. While it is in line with Crawford's hypothesis, this alternative approach tends to base its philosophy not on risk at all, but rather on normalcy in birth.

The ways in which the midwifery model of childbirth differs from the medical model have been explored by many writers, who cite a variety of factors including the location of care, views on the use of technology, and where the locus of control lies in birth (See Davis-Floyd 1993; Rothman 1982; Oakley et al. 1979). Agustsson (2006:102) notes that, generally speaking, whereas obstetricians are focused on proactively looking for risk factors that may indicate a predisposition for a future complication in pregnancy, midwives tend to focus on managing pregnancy and birth as normal until abnormal signs appear. The midwifery model of care stresses the importance of a woman's birthing space, claiming that the most successful and safest births are the ones in which the woman is able to create an environment for herself where she feels safe, in control, and unthreatened (Freeze 2008:207).

Walsh (2006:94) identifies three factors that he thinks are most important to women in birth. He calls these factors *the three Cs*: choice, control and continuity of care. He cites a number of studies that empirically demonstrate that midwifery care focused on the three Cs

lead to better outcomes (See Hodnett 2005, Homer et al. 2001, and Hodnett et al. 2006 for studies based in the U.K. that refer to each of the three Cs, respectively). While “normal” and “healthy” are certainly the buzzwords in midwife-led care, midwives, too, acknowledge (although to a much lesser extent than the medical community) that there are potential risks inherent in the birthing process. However, midwives and the growing consumer base that supports them, construct their views on what is risky in childbirth in a markedly different way from the medical community. Instead of focusing on the pregnant body and birthing process as the locus of risk, they tend to flip it around, focusing instead on iatrogenic risks of birth.

Iatrogenic risks refer to all of the potentially negative outcomes that result directly from medical interventions –for example, risks of complications from surgery, of infections from artificial rupture of membranes (AROM), of cephalohematomas from vacuum extractions, and of scarring from episiotomies (Nolan 2010:6,70; Yankou et al. 1993:159-164).

In addition to iatrogenic risks, midwives refer to the danger of *ignored* risk –that is, risks that exist not because of medical interference, but because of the hospital’s disregard for what Walsh (2006:92) refers to as *organizational deficiencies* that add risks to pregnancy and birth. For example, Walsh (2006:93) suggests that medical risk assessments rarely identify the lack of continuity of care in large labor and delivery wards as a legitimate risk to health, even though evidence indicates that discontinuity of care is a significant risk to a woman’s wellbeing in birth.

Minimizing Risk, Maximizing Safety?

Risk Management

Kennedy (2006:13) suggests that development of risk management in healthcare is a response to the “shadow of uncertainty that surrounds future outcomes, which are not always quite as predictable as we would like them to be.” It is this desire for control –to “impose order and increase the predictability of outcomes by reducing future uncertainty,” that defines the nature of risk management systems (Kennedy 2006:13).

Developing standards for minimizing risk is a convoluted, though entirely commendable undertaking that plays a role in virtually all industries. For instance, consider risk management in food preparation: The FDA publishes a set of uniform guidelines and procedures for all food preparation workers to follow in order to minimize the spread of foodborne illnesses. Those involved in food preparation are required to maintain a certain level of personal hygiene, steps must be taken to prevent cross-contaminating equipment, and different foods must be stored and cooked at different temperatures to minimize health hazards. This makes sense. Developing a standard of preparation based on empirical evidence is clearly a good way to minimize and control outbreaks of foodborne pathogenic contamination. However, risk management can become markedly more problematic in healthcare, particularly in maternity care where Symon (2006:2) notes that “expectations are high and the fear of loss most accentuated.”

Just as with risk management in all other domains, risk management in clinical maternity care is based upon an understanding of what Kennedy (2006:15) calls *the system* –all of the groups of individuals (obstetricians, midwives, nurses, anesthesiologists, nurse-midwives, hospital administrators, pregnant women, mothers, babies, et cetera) that combine and interact within the clinical environment. Symon (2006:161) argues that the success of a

clinical risk management program is evaluated based upon how good the developed protocols and standards of evidence-based care are at producing aggregate outcomes that reinforce the principle of utilitarianism, that is, the best possible outcome for the greatest number of women and babies. Again, no practitioner would argue against trying to maximize positive outcomes. At the end of the day, the ultimate driver in maternity care is the same regardless of profession: to produce happy and healthy mothers and babies with the least amount of trauma possible. But groups of practitioners –both within the clinical system and outside of it, tend to disagree on what the most appropriate means to achieving the best outcomes are.

In previous sections of this chapter I have demonstrated the different lenses that obstetricians' and midwives' use when thinking about how to achieve best outcomes. For midwives, a woman's personal autonomy is key. For obstetricians, minimizing risks through proactive management of pregnancy and labor is essential. These perspectives do not necessarily need to be oppositional –examples of nations that have successfully integrated different perspectives into a collaborative maternity care system are numerous (see for example, Jordan (1993) for a comparison of maternity care in Yucatan, Holland, Sweden, and the U.S.; Bourgeault and Fynes (1997) for a comparison of U.S. and Canadian systems; Benoit and Heitlinger (1998) for cross-cultural comparison between Canada, Sweden, and the Czech Republic and Dutch systems; De Vries (2004) for a study of maternity care in the Netherlands; and Davis-Floyd et al. (2009) for cross-cultural examination of successful maternity care systems and the aspects of those systems that have contributed to their success).

However, this has not been the case in the United States; maternity care remains fragmented. The vast majority of births still occur in hospital settings with at least a degree

of medicalization. Women interested in pursuing more natural and social births often find themselves alienated from mainstream healthcare and socially positioned as radical nonconformists. Edwards and Murphy-Lawless (2006:45) suggest this polarization is the result of the midwifery model of care having to work under the shadow of an authoritative knowledge system that dictates obstetric risk definitions. Symons (2006:161) adds that the root of tensions that exist between midwifery and obstetric management of risk is the “competing claims concerning the validity of different forms of knowledge.”

It is no secret that ACOG and the AMA, the two national bodies largely responsible for developing risk protocols and guidelines for evidence-based care in obstetric medicine, view home birth with a critical eye. Edwards and Murphy-Lawless (2006) suggest that the medical community’s focus on evidence-based medicine is its greatest claim to superior knowledge in childbirth. They also claim that a focus on evidence-based medicine leads to a quantification of risk. This interpretation of risk is meant to pull apart acceptable from unacceptable risk, but as we have seen, the statistical likelihood of a risk event occurring often does not indicate how the risk is perceived and how the acceptability of it is judged. Symon (2006:161) says that the medical community “tends to claim for itself the highest levels of knowledge on which decisions about imposing order or about clinical care are made,” and only views choices as acceptable “if ‘the system’ thinks it can control or predict...the outcome.”

ACOG’s statement on the risks of home birth not so subtly hints at the fact that the organization see biomedical knowledge of safety as superior to women’s when it comes to birthplace: while they “respect a woman’s right to choose the birth site, the safest choice is a hospital or birthing center” (American College of Obstetrics and Gynecologists 2011). ACOG’s unconditional support of the hospital as the safest place for childbirth implies that

a woman's "choice" to choose a birth site is only acceptable if her choice is in line with the biomedical view of risk management. What the statement implies is that any other choice is irresponsible. This seems to provide support for Symon's (2006:161) claim that differing views for what knowledge is valid in childbirth is the underlying point of contention that influences how obstetricians and midwives go about reducing risk.

Symon (2006:165) says, "the focus on risk management, albeit unwittingly, has led to a situation where the imperative is always to control rather than to facilitate birth; to a situation where women's 'knowledge' about what they can achieve in childbirth is discounted in favor of a purportedly 'objective' knowledge designed to achieve population-based outcomes."

A Culture of Litigation

The implementation of risk management strategies in hospitals has been viewed not only as a mechanism for ensuring the best outcomes for women and babies, but also as a response to the increases in liability claims and litigation within obstetrics (Clements 2001; Harthorn and Oaks 2003). Ament (2007) describes medical malpractice as a legal error committed by medical personnel: "The law allows an injured person to seek damages from the wrongdoer to remedy the tort" (Ament 2007:123).

It is no secret that obstetrics is a risky profession —obstetricians are the most frequently sued doctors in the country after neurosurgeons (see Chapter 2). Abiding by the established guidelines for practicing obstetrics is the bottom-line defense that obstetricians have when involved in litigation. If an obstetrician can show that his or her management of labor was in line with ACOG's standards of care, he or she can avoid being found guilty of professional malpractice. Sakala (2012) explains why intervention is viewed favorably in the court system:

Doctors can protect themselves in court by demonstrating that they took action to save or protect a baby who was ultimately harmed. A lawyer or judge might ask, “Did you do everything that you could have done? Did you err on the side of getting that baby out?” If doctors can show that they took special action — by, say, performing surgery — they may ultimately escape blame. [Moyer 2012]

Clearly, deviating too far from the biomedical model standards of obstetric practice can be profoundly risky for practitioners —even in cases where there is little to no empirical evidence to support that the clinical practice guidelines improve the quality of care (Merritt et al. 1999).⁷

O’Connor (2006) claims that that as OBs have taken more control over actively managing labor, they have unwittingly reinforced an unrealistic expectation amongst consumers that by managing birth, doctors can eliminate risk. She argues that active management pressures obstetricians to either implicitly or explicitly “declare full acceptance of responsibility for the outcome or birth, including mishaps...but with responsibility [comes] liability: mishaps [lead] to malpractice suits” (O’Connor 2006:112).

Concurrent to the tendency towards active management has been a growing expectation amongst women that they should be able to exert a certain amount of control over their births, making decisions about the “type” of birth they want. Within the context of this balancing act, “risk reducing strategies implemented by the professionals may be seen as an attempt to stifle that right to choose and as leading to more defensive practice” (McNally 2006:72).

⁷ For example, continuous electric fetal monitoring (EFM) was developed in the 1970s to decrease the rates of cerebral palsy and death resulting from fetal hypoxia. While evidence has shown that EFM decreases the rates of neonatal seizures, it has not been shown to reduce rates of cerebral palsy or neonatal mortality. On the contrary, EFM increases the rate of cesarean section by sixty-six percent (Barstow et al. 2010). See Hindley et al. (2006) for a discussion of EFM and the evidence supporting its continued use.

Home Birth: What Happens When Things Go Wrong?

The litigious culture is notably different within the home birth community. While most CNMs have and are often required by their employer to carry malpractice insurance, the same is not so for CPMs (Andrews 2012). Many midwives –particularly those who do not work primarily in a birthing center, aren’t interested in obtaining malpractice insurance. The few that are interested can rarely afford the steep premiums that insurance companies charge for coverage.

But lack of insurance does not prevent midwives from being held liable in court for malpractice when things do go wrong. While litigation is less common in midwifery (I will discuss the potential reasons for this in the following chapter), cases where midwives are sued for professional negligence do occur. According to Ament (2007:123), “The law expects that all professionals have a defined standard of minimum knowledge and ability. For midwifery, these standards are codified in midwifery core curricula, state licensure statutes and standards from professional organizations.”

Knowledge is Power (and Power is Choice)

Throughout this chapter I have examined a number of different concepts and perspectives related to risk perception in American maternity care: how different perceptions of risk develop and are defined; how each model of care utilizes different forms of knowledge to validate its particular perspective; how risk perceptions are influenced and reinforced by objective data as well as extraneous factors; and different mechanisms that attempt to minimize risks in pregnancy and birth. Two of the important themes that run through each of these concepts are *knowledge* and *power*. These two features are inseparable from one another –knowledge begets power; power in turn legitimizes knowledge (Symon

2006:159). The previous sections in this chapter have offered some perspective on where American maternity care practitioners are situated within this entangled system. As I hope to have illustrated in this chapter, in order to understand risk perception in maternity care, it is not enough to look at practitioners' and women' claims to knowledge about what is risky in birth and what is not in isolation –perceptions are often wrong and risks are often overemphasized, underemphasized, or largely ignored. Analyzing risk perception requires looking beyond individual knowledge systems to examine who it is that holds authoritative knowledge and how that knowledge drives the defining of risk and the development of perceptions of what risk is acceptable in birth.

Before closing this chapter I would like to acknowledge the weaknesses of dichotomizing risk perception into a home birth vs. hospital birth debate. If I have realized anything throughout my research, it is the great variability in how practitioners conceptualize risk. While the home/hospital dichotomization is theoretically useful for conceptualizing risk, it is only a simplified paradigm for looking at the differences in how the two groups of practitioners *collectively* tend to think about risk. That aside, such categorization has limited usefulness when trying to illuminate how all the different factions with stakes in pregnancy and childbirth interact to produce a realistic picture of contemporary maternity care – a system that is paradoxical and convoluted, integrated while fragmented, and dynamic while more homogenized than most other maternity care systems in other countries. With that, I would like to turn to a qualitative study that I hope will illuminate some of the intricacies and contradictions inherent in the United States' system of maternity care.

CHAPTER 5:
A QUALITATIVE STUDY ON DIFFERENCES IN RISK PERCEPTION BETWEEN
OBSTETRICIANS AND CERTIFIED PROFESSIONAL MIDWIVES IN MISSOURI

The purpose of this qualitative study is to explore the theoretical differences and similarities in how OBs and CPMs in Missouri conceptualize risk in pregnancy and childbirth. The study was designed to examine the sources of knowledge that practitioners call upon when developing risk perceptions, how practitioners perceive risk in childbirth, and what practitioners think are the best ways to minimize risk.

My goal is to provide a humble contribution to the literature on maternity care in an attempt to illuminate some of the complexities in providing optimal care in Missouri. An additional goal is to promote discussion between the home birth and hospital birth communities regarding the scope of midwifery and obstetrical practice in order to increase interdisciplinary awareness and promote future collaboration between the two communities.

Context

This present study is based on qualitative research I conducted in Missouri between January and March of 2013 during my senior year at Washington University in St. Louis. The demographic variability in Missouri adds a layer of complexity to studying maternity care because of the wide disparity in access to care. Figure 1 provides a pictorial representation of the population density across Missouri.

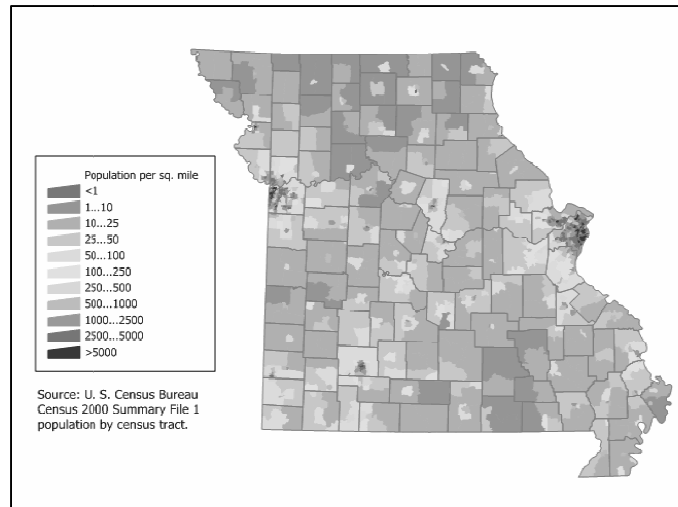


Figure 1. Missouri Population Per Square Mile
Retrieved from Missouri Department of Health and Senior Services 2012

According to the Missouri Department of Health and Senior Services, as of 2011 there were 118 general medical/surgical hospitals in Missouri –with only 68 located in rural counties. Of the 68 hospitals in rural counties, 36 are Critical Access Hospitals (CAH), which are likely to lack specialty medical care practitioners, such as obstetricians. Additionally, there are 41 counties in Missouri that lack hospital facilities all together (Missouri Department of Health and Senior Services 2012).

Of all hospital births in Missouri as of 2006, 30.2 percent of live births were delivered via cesarean section, 29.8 percent of labors were induced, 12.8 percent of births were preterm and 45 percent of births were covered by Medicaid (Sakala and Corry 2008). Additionally, for every one thousand live births in Missouri, 10.4 are delivered outside of a hospital (Missouri Department of Health and Senior Services 2012). The percentage of out-of-hospital births has remained relatively steady at one percent over the last two decades. Figure 2 provides a representation of the frequency in which women in different counties across Missouri give birth outside of a hospital.

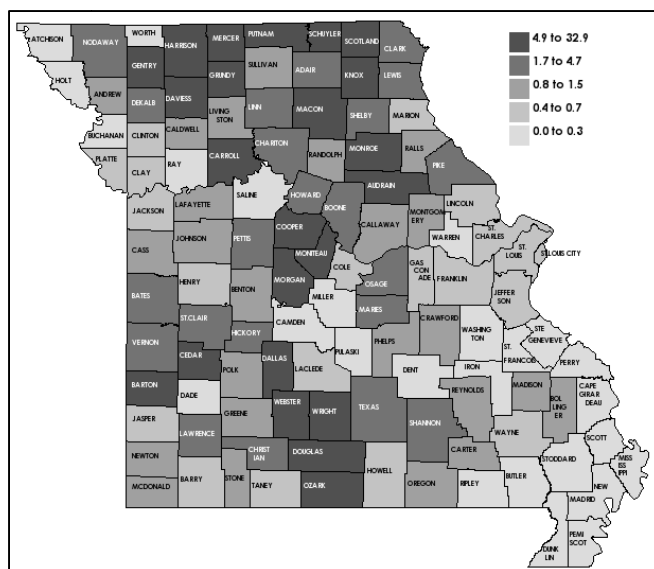


Figure 2. Out-of Hospital Birth in Missouri (per 100 live births)
Retrieved from Missouri Department of Health and Senior Services 2012

Although there are no statistics available in Missouri that indicate the percentage of births delivered specifically by CPMs, average intervention rates for CPMs according to national data collected by Johnson and Daviss (2005) indicate that low-risk women attended by CPMs in home births are less likely than low-risk women delivering in hospitals to receive electronic fetal monitoring (EFM), Intravenous drip (IV), epidural analgesia, episiotomy, forceps, vacuum extraction and cesarean section.

Although certified professional midwifery was technically legalized in Missouri in 2008 (after the injunction placed on the original 2007 provision had been lifted) HB 818 did not introduce any regulatory or licensing boards to supervise Missouri’s CPMs. Missouri is one of the only states in the United States to have legalized midwifery without laying out provisions in accompanying legislation regarding regulation and licensing procedures (Strong 2011:10). Because of this, there is still a great deal of uncertainty regarding the future of

midwifery in Missouri. Lobbyist groups on both sides have been eager for Missouri lawmakers to introduce amendments that would augment midwives' current standing.

For the past few years, the medical community has been urging legislatures to present bills to regulate CPMs' practices. Two common features of the regulatory legislation have been: (1) a requirement for all CPMs to carry malpractice insurance in order to practice and (2) for licensing and regulation to be managed by a board of medical professionals. Midwifery organizations have staunchly opposed such legislation on the grounds that no other group of healthcare practitioners is required *by law* to carry insurance. Midwifery supporters claim that this provision would run midwives out of business. Rep. Caleb Jones has filed a bill to be presented to Missouri's General Assembly this 2013 legislative session under the title HB 308. It includes two provisions, the first being identical to the amendment presented in HB 818, the second reading as follows:

Any person certified and providing home birth services shall, prior to the provision of such services, furnish to all individuals for whom such services will be provided satisfactory evidence that such person has obtained and maintains a midwifery malpractice insurance policy with coverage of at least one million dollars. Any person who fails, prior to the provision of such services, to present proof of such malpractice insurance coverage is guilty of a class C misdemeanor. [House Bill 808 2013]

If this bill were to pass, it would become law in August 2013 and profoundly affect the practices of all midwives who assist in out-of-hospital births.

Rep. Kurt Bahr has also filed a pro-midwifery bill on behalf of midwifery advocates. The bill would establish, amongst other things, a regulatory board for CPMs that would be comprised of midwives and in charge of overseeing a licensure system. It would also define "professional midwifery," clarify that healthcare practitioners cannot be punished for helping a CPM, and require the Department of Health to keep statistics on the safety of midwife- and physician-attended births and make those statistics available to the public. But as of now, midwifery in Missouri remains legal only under the tocology provision of HB 818.

Methods

I had originally hoped to interview ten OBs and ten CPMs to inform my study. However, it became clear that because of time and logistical constraints it would be difficult for me to properly collect and analyze that amount of data. Instead, I accepted a participant pool of fourteen individuals –seven OBs and seven CPMs. Guest et al. (2006:17) suggest that for a qualitative study to produce statistically valid results, “a sample of six interviews may [be] sufficient to enable development of meaningful themes and useful interpretations.”

Preparation

OB participants were recruited for this study over e-mail referral from Dr. Lewis Wall. Dr. Wall provided me with initial connection to OBs who were interested in my research. Once initial connection was established, I took over scheduling interviews. Of the fifteen OBs Dr. Wall referred to me, ten made contact with me saying they were interested in participating. Of the ten who voiced interest in my study, seven ended up participating. Of the three who made initial contact with me, two did not respond to e-mails to schedule an interview and one was illegible to participate because she was currently practicing in a different state. Participants were told the interview could take place wherever was most convenient for them –five interviews were conducted at participants’ offices, two took place at their homes.

My access to CPMs was fundamentally facilitated by relationships I had established through an academic internship with FoMM. CPM participants were recruited through personal e-mails and phone calls, an announcement at an MMA meeting, or referral from other CPMs. I found contacting and scheduling interviews with CPMs significantly more difficult than it had been with OB participants. I was told by CPMs as well as contact I have

established at FoMM that the reason I likely had difficulties scheduling interviews was because CPMs did not tend to check their e-mails frequently and often had unpredictable schedules. However, all of the CPMs who did voice interest in participating in my study were very enthusiastic about speaking to researchers. Of the seventeen CPMs who voiced interest, eight scheduled interviews. Of the eight scheduled interviews, seven were actually conducted. The one CPM who I was not able to interview had to cancel because of a birth she was attending and then we were unable to find a time to reschedule. Just like the OBs, participants were told the interview could take place wherever was most convenient for them. Because of the wider distance between practitioners, I often suggested Skype or phone interviews as an option. Two of the interviews were conducted in person at CPMs' office, two were conducted over Skype and four took place over the phone.

Interviewing

All of the participants were informed of the details of my project prior to participation. They were each informed that the study had been approved by the IRB and given a copy of the IRB exempt information sheet, which detailed the voluntary and confidentiality-based aspects of the study. The sheet also provided my contact information as well as the contact information for the Human Research Protection Office. Before beginning the interview, I asked permission to use a tape recorder for the duration of the interview. All participants agreed. The interviews varied in length between 33:26 minutes and 64:31 minutes, with the average interview running approximately 47 minutes. Following the conclusion of each interview, I manually transcribed each recording verbatim on to a Microsoft Word document, removing all identifying information.

Data Analysis

I owe much of the design for my data analysis to Powell and Renner's (2003) *Analyzing Qualitative Data*. As a novice researcher, I had not had significant previous experience analyzing data. Powell and Renner's (2003) guide was extraordinarily useful in informing my analysis methods. Once all interviews were transcribed, I began data analysis. I started by re-reading the transcripts and identifying reoccurring themes, patterns, and points of contention both amongst individuals within the same profession as well as between OBs and CPMs. A number of preliminary topical themes emerged, which were then edited for relevance to my research questions and condensed based on perceptual overlap. Final themes to use for my analysis were based on emergent reoccurring findings within responses. Categories of participant responses were split into two sections: (1) responses about sources of knowledge and (2) responses about perceived risks and risk reduction in pregnancy and birth.

After identifying those two overarching categories, I went back to the transcripts and began systematically coding responses by category. I noted every relevant response that fell within the boundaries of at least one of the two overarching categories, regardless of how often the response appeared across the data. I chose to create this exhaustive list to reflect the nuances in responses and avoid personal biases from influencing data analysis. Responses were collected in a Microsoft Excel spreadsheet, organized by participant number and relevant category, and compared across participants. Comparing patterns of responses allowed me to identify themes within each category, which became the basis for organizing my findings. Within the first category (sources of risk knowledge), I identified five significant sources that participants called upon: (1) availability heuristics, (2) scientific research, (3) training and education, (4) instincts and intuition and (5) protocols, guidelines, and

recommendations. Within the second category (perceived risks), I identified three different risk origins that participants called upon when describing risk: (1) risks introduced by pregnancy and parturition, (2) risks introduced by place, and (3) risks introduced by practitioner. I determined a number of different themes within each category, upon which I will enumerate in the following sections.

Limitations

Because of the nature of qualitative data, there were numerous instances where responses were relevant to more than one category or subcategory. My goal was not to mold my data into mutually exclusive, strictly defined categories of responses, so instead I strived to accept data that fit into more than one category or subcategory, recognize over-arching themes, and acknowledge the redundancies and limitations of superimposing abstractly defined categories onto qualitative data.

Participants

In order to be eligible for participating in this study, practitioners had to meet the following criteria: (1) must currently be practicing in the state of Missouri, (2) must currently be licensed as either a CPM or OB, (3) must have practiced with professional certification for at least one year. I chose to focus on these two particular subgroups of practitioners because I felt it would allow for the clearest and most reliable comparison. The two groups typify both ends of the hospital-home birth spectrum, while still ensuring a certain degree of uniformity in regards to their certification and training. I excluded practicing CNMs from my data for two reasons: (1) there is only one CNM in the state of Missouri who currently has delivering rights in a hospital and (2) the majority of CNMs work in a hospital with a collaborative agreement with a physician. Because I was interested in researching out-of-

hospital births and how midwives choose to structure their own practices, I felt that CNMs' work place and requirements to work within the confines of their collaborative agreement were not the best option for comparison. I excluded non-certified DEMs for two reasons: (1) because there are not many currently practicing (at least openly), in Missouri, and (2) because their lack of certification introduces so many additional variables in terms of their experience and training that I felt it would not make for a fair or realistic comparison. I also excluded general practitioners because their profession does not focus exclusively on female reproductive health and I therefore did not think they would make an appropriate comparison to the midwifery community.

All of the practitioners have been given pseudonyms, and all identifying information has been removed from their responses. Two of the OBs were male (28.6 percent) and five were female (71.4 percent). All CPMs were female. All participants were Caucasian. Of the CPMs I spoke with, six were currently attending predominately home births in areas ranging from urban to very rural. One CPM was working at a birthing clinic, although she still did attend home births. Additionally, while currently practicing outside of a hospital setting, two of the CPMs were also qualified as CNMs. Of the OBs I spoke with: one worked in maternal fetal medicine, one worked in a small-town group practice, one worked in a city-based private practice, and the rest worked in general hospital-based OB practices.

I recognize that the focus of this study on only two groups of practitioners is a limitation of my chosen method. The variability in practitioners who attend birth is bound to expose a far greater range of beliefs regarding risk perception than the range that is encompassed within the scope of this study. Additionally, within CPMs and OBs there is a great deal of variety in the types of practices each work in, Table 1 specifies the critical

aspects of their working environment to allow for their responses to be viewed through the context of their working environment.

Certification	Pseudonym	Practice	Interview Date
OB/GYN	Andrew Hamilton	Maternal Fetal Medicine	1/28
OB/GYN	Patricia Lynn	Group Practice: Generalist	1/28
OB/GYN	Charlotte MacDowell	Group Practice: Generalist	1/30
OB/GYN	Bridgette Hirst	Group Practice: Generalist	1/31
OB/GYN	Christopher Evans	Group Practice: Generalist	2/5
OB/GYN	Karen Thompson	Group Practice: Generalist	2/11
OB/GYN	Amanda Bowers	Private Practice: Generalist	2/12
CPM	Marissa Anderson	Home	2/4
CPM/CNM	Lily Pederson	Birth Clinic/ Home	2/25
CPM	Jennifer Doyle	Home	2/27
CPM	Emily Tobin	Home	3/9
CPM/CNM	Caitlyn Downie	Home	3/9
CPM	Jade Harvey	Home	3/10
CPM	Emma Laing	Home	3/15

Table 1. Participants and Practice Environment

Findings

Part A: Sources of Risk Knowledge

I identified five themes in the sources of knowledge that CPMs and OBs called upon when discussing childbirth and risk perception: (1) availability heuristics, (2) scientific research, (3) training and education, (4) instincts and intuition, and (5) protocols, guidelines and recommendations. Both CPMs and OBs cited the first two sources very frequently. OBs heavily cited their training and education when speaking about risks in birth. CPMs also quoted their training, mainly time spent observing births in apprenticeships or as doulas, but to a much lesser extent than OBs. CPMs expressed that instincts and intuition—both their own and the parturient, were very important sources of risk knowledge. None of the OBs I interviewed spoke about intuition or instincts. Lastly both groups called upon professional

protocols and guidelines (OBs more often than CPMs), usually as a justification for their risk perception in childbirth, rather than a primary source.

1. Availability Heuristics

All participants called upon personal experiences extensively when explaining why they felt that certain birth choices were risky while others were not. Because the majority of my questions were designed to reveal differences in opinions regarding home and hospital birth, I was not surprised to find that the incidents that participants cited tended to have to do with their personal experiences with the alternative maternity care system.

OBs almost always used the term “midwife” to refer to any birth attendant who did not work within in a medical environment. For the purpose of the rest of this analysis, whenever a participant refers to a midwife it can be assumed that they are referring to a DEM, unless otherwise specified. Additionally they often referred to all DEMs all “lay,” “traditional,” or “untrained” –I have not changed their wording, but it is important to keep in mind that usually they were not aware of whether the midwife they had interacted with was a CPM or not.

Five OBs had experience working with CNMs, either during residency or in their own practice, but none had ever worked alongside a CPM. Instead their experiences with CPMs were isolated to hospital transfers. Dr. Evans told me, “everybody who’s ever been hospital-based takes care of patients from midwives at some point who’ve been transferred into the hospital” (interview with author, February 5, 2013). While not *every* OB I spoke with had had personal experience handling home birth transfers, six of the seven had. The one physician who had not, Dr. MacDowell, practiced in a large urban area and told me that she was “not sure how popular that sort of thing actually is in the city” (interview with author, January 30, 2013). The rest of the OBs I spoke with (a few of them practicing in the same

city as her) cited cases in which a woman planning a home birth had been transferred to their hospital for a complication during labor.

The stories that these OBs told me all involved negative outcomes and were recalled as fairly traumatic experiences. For instance, when the topic of home birth came up in my interview with Dr. Thompson, she told me that managing a home birth transfer was one of her “worst memories” of residency.

There was a woman who had twins at home with her lay midwife –not a CNM. Baby B was stillborn and nobody knew when or why because there was not continuous monitoring. Mom hemorrhaged and had to be admitted to the ICU for massive blood transfusion and needed a D and C [dilation and curettage] for a retained placenta, spiked a fever, needed to be intubated, multi-system organ failure –it was just so preventable and she ended up quite resentful of her care in the medical setting despite almost dying and needing ICU support...her husband was able to give consent for all of this so it certainly wasn't against anyone's will but she very clearly did not want doctors involved in her birth experience. But she had one twin who was a demise and she was nearly gone yet still was so resistant to us helping. And that is frustrating. We're all sort of grieving. The baby came in with her; it was hard for the whole team to then feel like we had done something wrong by helping care for her. [Interview with author, February 11, 2013]

While each OB had their own traumatic story, how the story informed their perception of home birth risk varied. For two of the OBs, including Dr. Thompson, they used the knowledge of their personal experiences as evidence for why home births were never a safe option for women. The other four used this sort of knowledge more as a cautionary tale: they tended to acknowledge, albeit to different degrees, that under certain circumstances a home birth *might* be an acceptable option for a woman to consider.

They also tended to qualify their stories about emergency hospital transfers by noting that they recognized that these types of incidences were exceptional, and that the vast majority of home births had far less drastic outcomes. Despite qualifiers, the OBs' responses indicated that particularly traumatic home birth transfers remained salient in their minds and were called upon as support for their beliefs regarding risk in home birth. They tended to use

heuristic knowledge as supplementary to other repositories of knowledge, particularly empirical research and ACOG's recommendations.

CPMs called upon a significant amount of experiential knowledge as well when describing their perceptions of risk. And just like OBs, many of the incidents they discussed focused on experiences of transferring to the hospital. However, unlike the OBs' heuristic accounts, CPMs utilized personal experiences to explain why hospitals, and specifically hospital interventions, were sources of risk to parturient women.

For instance, Jade told me numerous stories about her experiences in labor and delivery wards, none of them positive. Rather, she explained the incidents to me as evidence of the risks of hospital births. Jade believed that one risk of hospital birth was the time limit set on women's labors. "Women all labor very differently," she explained, "Trying to hold someone to a schedule is a big mistake. It actually causes a lot of the problems that happen in the hospital." She told me how she had attended women at home whose "contractions never got closer than seven minutes apart" but had had completely normal deliveries. She went on to cite an example from when she had been a doula and childbirth educator for pregnant teenagers to explain to me why she thought hospitals were dangerous.

I had a student who was induced at forty-one weeks. Now, teens don't really know when they have their periods and things like that, they aren't tracking them. There is something called a Bishop score that can kind of rate the baby's positioning and how favorable the cervix is and things like that. Her Bishop score was very poor, but they proceeded [to induce her]. After laboring with her for quite a few hours at the hospital her mother came in and insisted that she have an epidural to help her relax because the Pitocin was making her too tense, which I didn't feel it was. At any rate, she decided to do what her mother told her to do and she crashed –and by that I mean her blood pressure and her heart rate plummeted, which is a side effect of epidural... the baby's heart rate plummeted of course, so they rushed her in for a C-section. This baby that was supposedly forty-one weeks weighed just over six pounds... The pediatrician who gave the newborn exam said that she was barely thirty-seven weeks, if that – all a completely contrived situation. [Interview with author, March 10, 2013]

The idea of the hospital introducing unnecessary risk was a sentiment echoed by most CPMs (as well as some OBs). However, the CPMs were more likely to regard their experiences as evidence that avoiding the hospital was often a safer choice for women they defined as low-risk. Lily expanded upon Jade's suggestion that the hospital introduces more unnecessary risk for the average low-risk woman than home births do. "I don't have numbers to back this up, I'm just speaking from personal experience, [but] a lot of the complications I've seen, like postpartum hemorrhage or shoulder dystocia, they don't happen at home with the same frequency because we manage birth differently; because we don't intervene when it's not necessary to intervene" (interview with author, February 25, 2013).

Just like the OBs, CPMs qualified many of their personal experiences as well, acknowledging that there were certainly cases where the hospital was a safer place for a woman to give birth. However, what is most important to note here is that the tendency to call upon personal experience as a source of risk knowledge was universal amongst all practitioners. The heuristics that were most salient to them played prominently in what they viewed as risky in childbirth and what they did not.

2. Scientific Evidence

While I expected OBs to rely heavily on empirical evidence as a source of knowledge, my interviews indicated that CPMs cited just as many studies, if not more than most OBs did. Much of OBs' allusions to empirical evidence focused on describing the newest research suggesting the best obstetrical guidelines for practice. For instance Dr. Hirst explained to me that although VBACs were classically considered too high-risk to perform, "there is new evidence that [suggests] that in the right candidate, her risk is still low enough that we could consider doing a vaginal delivery after a C-section" (interview with author, January 31, 2013). Another body of evidence cited by Dr. Evans, and in fact, by over half of

the OBs in this study (four out of seven), was new evidence that indicates that extending the time limit for normal active labor may improve outcomes.

Traditionally we've said, if you don't make change in your cervix –that is, stay the same dilation for two hours, that you should have a C-section. Now, there is pretty good evidence to say that you don't harm anybody by saying four hours instead of two. You don't increase the risk to the mom and the baby and we'll end up having more vaginal deliveries if you're a little bit more patient.”
[Interview with author, February 5, 2013]

Empirical evidence was not only an important source of knowledge for OBs but also an important justification for adhering to certain standards of practice. Dr. Hirst explained that relying on empirical evidence in her practice was vitally important to minimizing risk. She told me,

Everything we do, in general, is evidence-based...in fact we won't do [a procedure], even though we think in theory it might be helpful because what if we did it and it was found to actually cause more harm than good? Unless there is data to show that it actually is beneficial, we're not going to be doing that until that data comes out to say it's okay to do. [Interview with author, January 31, 2013]

The importance of evidence-based care was frequently discussed by CPMs as well, but they tended to cite it in a broader context than OBs did. The general trends were for CPMs to mention, “evidence,” “science,” or “research” when discussing one of two topics: (1) evidence supporting the midwifery model of care as safe and (2) evidence suggesting risk in medical interventions. Marissa touched on both of these topics:

There is all this mounting evidence that the midwifery model is very sound medical care...I'm very happy that there are some OBs willing to overlook their indoctrination and see that there is actually evidence for practicing in a more sane way. There's evidence that EFM doesn't improve outcomes.... I'm excited the research is starting to back up our very traditional approach to birth.
[Interview with author, February 4, 2013]

Marissa's focus on scientific research suggests an awareness of a need to rely on authoritative knowledge systems in order to appeal to the medical community. In fact, every

CPM I interviewed mentioned scientific evidence that supports the midwifery model of care to some degree.

However, they didn't use empirical evidence in quite the same way as OBs did. Whereas OBs mentioned empirical evidence in the context of structuring their practices and what they considered acceptable practices for minimizing risk, CPMs tended to cite evidence that indicated the safety of the midwifery model on a whole.

3. Training and Education

A very common trend within my interviews with OBs was for them to attribute the perceptions they had developed regarding the risks of childbirth to their medical education.. For instance, in my interview with Dr. Lynn she expressed to me that she didn't feel home births could ever be as safe as hospital births. When I asked her why, she offered me the following response: "Through training you see all of the worst-case scenarios that can happen –people come close to or near death experiences...Seeing a patient or a baby turn so quickly, in minutes, [taught me that] being in a home, worse things can happen" (interview with author, January 28, 2013).

In fact, six OBs explicitly expressed to me that, to one extent or another, they felt that their perceptions of risk were products of their training. Dr. Thompson and Dr. Hamilton's responses were very similar to Dr. Lynn's, both describing how in residency the cases that they were exposed to, as Dr. Hamilton said, "left a mark" (interview with author, January 28, 2013). While those three OBs cited firsthand exposure through residency training, Dr. MacDowell, Dr. Hirst, and Dr. Bowers spoke more broadly about the nature of medical school.

For instance, when I was wrapping up my interview with Dr. MacDowell, I asked her if there was anything she wanted to add (as I standardly did at the end of each of my

interviews). She began talking to me about what she perceived the differences to be between OBs and the CNM that she works with. Eventually, she came to the conclusion that the characteristics valued through CNM and OB educational routes were different. She suggested midwives are “able to give [women] something that I don’t have the patience or training for.” She described the way she practiced as being a product of her education:

We’re taught the very book straight hour-by-hour what labor should look like, what management of labor looks like...all of the actual patient care is given by nurses, right? We come in to do interventions and deliveries. And that’s how we’re trained... We’re very much taught how we do our things, or give our medications or do our surgeries –the focus is not on kind of supporting the woman through labor and what that means, and does she need a massage or to walk around or to change positions –its just not the focus of our training.”
[Interview with author, January 30, 2013]

In a similar vein to Dr. MacDowell, Dr. Bowers expressed that she felt obstetricians in general were predisposed to thinking about risks in childbirth in a particular way because of their training. She told me,

As physicians you’re trained to intervene; that’s what we’re trained to do. We’re good at managing abnormalities. So in some ways obstetrics is an anomaly in medicine. You go into medicine to do some preventative care, but most of medicine is about treating problems and correcting problems. So obstetrics, which is often a normal process, is a little bit of an anomaly in medicine. It takes a different mentality to approach it and it can be really hard because, like I said, sometimes you have really sick patients –they come in sick, they stay sick, they get sicker. Sometimes you have normal patients that get sick. Recognizing when something is normal and leaving it be, in of itself takes time and a different kind of training.” [Interview with author, February 12, 2013].

Dr. MacDowell and Dr. Bowers’ observations were echoed by some of the CPMs I spoke with as well. Emma believed that the difference in training offered an important explanation for why OBs and midwives view the risk of childbirth through different lenses. When I asked her to elaborate on what she thought the differences were, she explained to me, “the difference is not just in how we handle birth. It starts the very first day we meet [the woman]. A physician is trained to recognize and treat pathology. A midwife is trained to

protect the normal state of birth. My philosophy is that birth is generally a normal life process, so I treat it like a normal life process” (interview with author, February 25, 2013).

CPMs did not speak about training influencing their risk perception the same way OBs did. I believe that this is likely because their simple choice to pursue midwifery as a profession requires acceptance of a view of birth, as Lily said, as “a normal life process.” Thus, training is less likely to act as a *source* of knowledge about risk perception.

However, Jade did indicate that the time she spent during her apprenticeship confirmed her perceptions of home birth as low risk. During her training she apprenticed a CPM “who would do around, at least, ten births a month.” She continued to explain to me how over the course of her two and a half years apprenticeship with that CPM, not once did they have to make an emergency transfer to a hospital (interview with author, March 10, 2013).

4. Instincts and Intuition

Whereas OBs were more inclined to call upon their education as a source of risk knowledge, it was only CPMs who made references to intuition and maternal instincts as important sources of risk knowledge. They often cited these sources of knowledge as indispensable tools to minimizing the risks of home deliveries. Marissa, Jennifer, Emily, Caitlyn, Jade, and Emma all made reference to a belief that a parturient woman’s feelings about whether she was at risk or not was an important source of risk knowledge.

Jade explained to me that there had been many times over the course of her career where her intuition had been the only source of knowledge at her disposal that had directed her to a certain risk. When I asked her if she could explain the influence intuition had on her perception of risk she responded that it wasn’t something she could “explain or quantify in

any way. From working with pregnancies and things I think your instincts become more sharpened, you become more aware of things.” She offered me the following example:

I had a mom I was working with who had had a birth nine years before –very quick, very uneventful first birth. Everything seemed to be going just fine in her pregnancy and then we did a sonogram and her placenta was quite low, you know, it was near the cervix. I know there would have been some midwives who just would have gone on with care for her, but I almost became fearful myself when I saw the sonogram so I referred her to an OB at twenty-eight weeks. And so she went on to work with him and at around thirty-seven weeks her placenta had grown up in the uterus and wasn’t in the way anymore. She talked to me about it and I just felt that it wasn’t a safe situation –there was just something in my instincts that told me it wasn’t. And in fact, when she went in to labor two weeks later in the hospital, she hemorrhaged greatly and had to have an emergency C-section and she lost a lot of blood.

So, the testing would have told me that everything was okay, that she would have been okay at a home birth, but my instincts –something just told me that it wasn’t going to be right, that there was something wrong... I’ve learned to really pay attention to that when I get concerned about something.... If the mom is telling me that there is something wrong, I’m going to listen to that and I’m going to transport [her] to the hospital. So I’m looking at that and it’s something that’s just become high-risk –I don’t know how, but I’m going to listen because that’s her intuition as well. [Interview with author, February 10, 2013]

No other CPM talked about a personal sense of intuition as explicitly or extensively as Jade did, most CPMs made it clear that paying close attention to laboring women was important for recognizing risk factors for complications early on. Caitlyn said, “If you’re really paying attention you’re going to be attuned to and ward off problems. You’ve really got to care, you can’t look at it as just your job” (interview with author, March 9, 2013). Emily similarly told me that she believed, “typically the woman knows what’s best for her” (interview with author, March 9, 2013).

5. Protocols, Recommendations, and Guidelines

CPMs, while legal in Missouri, are not regulated by the state. On a national level, the guidelines released by ACOG influence OBs’ practice much more than CPMs are influenced by state or national midwifery organizations. Because of this I wasn’t particularly surprised to find that this final theme was largely isolated to OBs. To be sure, NACPM and MANA

release standards of practice that guide CPMs across the nation. Additionally, the Midwives Model of Care is largely accepted as a standard of care that CPMs are required to uphold. That being said, recommendations and guidelines did not appear to be a significant source of risk knowledge for CPMs, while it was consistently cited by OBs.

A great example of this theme can be found in the interview I had with Dr. Hamilton. Over the course of our conversation, which lasted approximately thirty-five minutes, he cited ACOG recommendations on five separate occasions. For instance, my first question to him (after the introductory question that I started all my interviews with) was whether he thought there was a setting that was best for giving birth. His response fundamentally focused on ACOG's position on the matter. He told me, "ACOG does have a statement regarding home birth; there is an increased risk of...death." Later in our interview when I was asking him about whether the risk of medical malpractice influenced the way he practiced obstetrics he brought up ACOG again: "We do everything by the books. We stick to what ACOG recommends we do." The remaining three times he brought up ACOG were all in reference to his belief that by "staying on top" of current ACOG recommendations, he could insure he was minimizing risks for his patients as much as he could (interview with author, January 28, 2013).

When I asked Dr. MacDowell what she thought constituted abnormal labor, she responded jokingly saying, "well we have *definitions* for that!" She continued:

You know, as OBs we do have definitions about how long labor should last, how long pushing should last, if it's your first, second, third, fourth baby, without an epidural or with an epidural. But I don't think that all of that is probably accurate. It was all done by a curve in like the seventies and probably does not account for the population we see today. I think you can use those definitions –and I definitely do use the ACOG definition of arrest of dilation or arrest of descent. If there has been no more active opening of the cervix after four hours of good hard contractions when they're in active labor –then that's not normal anymore. Then that baby is not really fitting through the pelvis and

they need a C-section for that. [Interview with author, January 30, 2013, emphasis added]

Dr. MacDowell's mixed feelings about the relevance of certain ACOG definitions subtly contrast with Dr. Hamilton's beliefs on the subject. However, it is notable that despite the skepticism she voices about definitions, she still follows ACOG's definitions for arrest of dilation and arrest of descent. The overall impression I got from OBs was that following ACOG's recommendation was often the best position to take in terms of establishing standards of care, since ACOG recommendations are meant to reflect evidence-based medicine, which is viewed as safe medicine.

In contrast to the OBs, only one CPM, Jade, mentioned anything about guidelines, standards, or recommendations. Jade explained that guidelines for CPMs do exist, but that unlike OBs, "we all kind of write our own. They're all pretty similar, and I do refer to those in some situations...but we write them ourselves" (interview with author, February 25, 2013).

Part B: Perceived Risks

Participants indicated a wide range of the phenomena they considered risky. A consistent trend throughout the data, however, was a tendency for practitioners to speak of risk in terms of the risk's origin. Based on this trend, I have identified three themes within participants' responses for classifying risks: (1) risks introduced by pregnancy and parturition; (2) risks introduced by place; and (3) risks introduced by practitioner. Within each theme I identified a number of sub-themes based on my coding analysis. An extensive breakdown of my findings can be found in Appendix C. The following sections are organized by theme to allow for an integrated comparison of OB and CPM responses. In

general, there was much more acceptance and crossover between OBs' and CPMs' understanding of risk than I anticipated I would find based on my literature review.

1. Risks Introduced by Pregnancy and Parturition

Both groups of practitioners readily acknowledged that a certain amount of risk is inherent in pregnancy: lifestyle choices (like diet and exercise), preexisting health conditions unrelated to a pregnancy (like chronic hypertension and obesity), characteristics of particular pregnancies (like breech presentation and placenta previa), complications that develop during labor (like shoulder dystocia, prolonged labor, and cord prolapse), and complications that present soon after delivery (like postpartum hemorrhage and infection), were cited by both groups of practitioners as risks inherent in pregnancy and delivery. However, while both groups recognized these risks, OBs tended to focus on them in interviews more than CPMs did. CPMs focused instead on the process of pregnancy as a non-pathological life event. While a number of OBs explicitly told me that they, too, believed that pregnancy was normal and natural, many of their responses indicated that they viewed the potential for pathology to arise as more probable.

Emma explained to me what she thought the difference was in how OBs and CPMs perceived the risks inherent in pregnancy. "When women come to me, they have to prove to me that they *can't* give birth vaginally...I feel like doctors say the reverse, like 'I don't think you can give birth vaginally, prove to me that you *can*'" (interview with author, March 15, 2013, emphasis added). Emma's interpretation is generally representative of how the other CPMs in this study tended to regard OBs' perceptions of birth.

But the OBs did not echo Emma's sentiments. OBs generally agreed that birth was a natural process. However, they spoke much more often about the problems that arise in birth. The general view seemed to be that while they perceived childbirth as a "natural" life

event, that they perceived it as a fairly dangerous one. For instance, Dr. Hirst explained to me,

It's not pathology to be pregnant –I totally agree. It's not a medical problem to be pregnant. Yet there are things in that process, and time, all of time, even though it's a natural process...why are we talking about underdeveloped nations where the maternal mortality rate is horribly high? That is sad –that is awful. It makes your heart break. Somehow there is something that we can do to make that process, even though it's not pathologic or a problem, better and improve outcomes. [Interview with author, January 31, 2013]

Responses about the risks inherent in childbirth tended to be focused on four areas: (1) the unpredictability of certain complications and the rapidity with which they can arise; (2) the *no zero-risk* factor; (3) the acceptability of different risk factors; and (4) the visibility of different risk factors. Each area will be discussed in turn.

Unpredictability

The risk that OBs repeatedly cited as the most precarious in low-risk childbirth was the risk of developing a devastating, life-threatening complication that required immediate medical intervention in a hospital setting. Examples of complications that were frequently cited by OBs were amniotic fluid embolism, shoulder dystocia, and intrauterine hypoxia. For the full table of complications cited, see Appendix C.

In fact, every OB I spoke with mentioned the uncertainty that surrounds emergency complications as an important risk to be aware of in childbirth. For instance, Dr. Thompson explained to me that, “emergencies by definition happen fast in childbirth” (interview with author, February 11, 2013). Dr. Hamilton also told me that, “the thing with obstetrics is that when problems happen, they happen fast. So you need to be able to [react] fast.” He continued to explain that the complications he was referring to were rare:

Ninety-five percent of the time it's gonna be pretty normal, but for that five percent –when you have that postpartum hemorrhage, which is probably more common than that, when you have amniotic fluid embolism, or when you have shoulder dystocia...you want to be able to have the ability to give

medicine... You know, I think we hear a lot about these great outcomes from home birth and that's fantastic. But being on the side where patients come in after something has gone wrong, I definitely have a view. I know what happens. [Interview with author, January 28, 2013]

Each OB I spoke with expressed similar beliefs to Dr. Hamilton's at some point or another during our interview. For instance, Dr. MacDowell explained to me how she felt that certain risks in pregnancy were entirely unpredictable.

I think there are some things that can happen that you just cannot predict. And when that's your baby that could really die, that's devastating. And I know that's like one in a million but if that were my baby I would not want that baby to be mine, you know. It doesn't happen very often, but when it does, people just don't think it's going to be them and it's usually not. But when it is... It's just the worst thing in the world. [Interview with author, January 30, 2013]

Even Dr. Bowers, who had quite liberal views on the acceptability of midwifery and home birth, appealed to the unpredictability of risk. When describing the safest place to give birth to me she said, "we know historically that moving births to hospitals internationally has improved maternal and neonatal outcomes. So I think going back to a home birth would be a negative trend" (interview with author, February 12, 2013).

There seems to be three premises that are particularly prominent among the accounts that OBs gave me regarding the unpredictability of risk. Those premises can be summarized as follows: (1) life-threatening complications occur rarely, but nevertheless do occur; (2) there is often no way to predict who is at risk for life-threatening complications; (3) life-threatening complications in labor emerge quickly, without prior warning, and require immediate medical intervention only available in a hospital setting.

However, what was most striking about this trend was not the remarkable similarity in OBs' responses; it was the great disparity that emerged when I analyzed the responses CPMs gave me. Similar to the OBs, the CPMs mentioned their awareness that emergency complications can, and do happen. They cited similar complications that can arise during

labor to OBs. But somehow, CPMs came to very different conclusions about the overall safety of childbirth.

*The no zero-risk factor*⁸

Similar to how the OBs discussed the unpredictability of emergency complications, Emily acknowledged that there were certain risks in birth that were unpredictable and unavoidable. In fact, one of the questions I asked in all my interviews was what each participant thought made home birth and hospital birth safe or unsafe. Emily got somewhat irritated with me when I asked her this question. She told me, “I don’t believe that you can *make* something safe. That word ‘make’ I think is a hot button. You can’t *make* somebody safe...that’s impossible. And if that’s the goal, it’s unobtainable” (interview with author, March 9, 2013). I apologized and rephrased the question to indicate I was interested in her perceptions of what could be done to minimize the risks and maximize the safety of a woman’s birth.

While her criticism caught me off guard, the point she was making was an important one. That is, that there is a no-zero factor in birth. Quite passionately, Emily asserted that there would always be risk in birth –it was unavoidable. However, unlike many of the OBs who viewed the ever-present unpredictability of risk as concerning enough as to assert that births were best managed in a hospital, Emily justified the no zero-risk factor by suggesting it was a constant in childbirth. She told me,

I think statistically there’s going to be about the same chance of a baby dying in or out of a hospital. But I think the reasons are going to be different... Obviously if you have a cord prolapse at home, that’s an emergency situation and if you’re forty-five minutes from the hospital, your chances of losing your baby are a lot greater. If the cord prolapses in the hospital, the O.R. is just in the next room, so you probably have a better chance of being able to save that baby.

⁸ I have borrowed this term from Agustsson (2006:102).

But also, in my practice I don't break water so I'm much less likely to see a cord prolapse than someone who does break water. I try to minimize the things that can be minimized, but you're never going to eliminate all of the risk –that's just life, that's just what life is." [Interview with author, March 9, 2013]

The anxiety that I found many of the OBs to possess regarding the no-zero risk factor and unpredictability of birth is not echoed in Emily's response in the same way. While Emily indicated that she was aware of the risk of life-threatening complications that existed in home births, somehow her awareness did not lead her to perceive the risk in the same way that OBs did. Rather she said that while risks do exist in childbirth, that giving birth in a hospital does not minimize those risks.

Emily's appeal to the no-zero risk factor was a common explanation given to me by CPMs to explain why they thought home births were acceptable options for women –to them, the no-zero risk factor remained a constant no matter where the birth place was. In response to these appeals I often asked why they thought so many people seemed to classify out-of-hospital birth as riskier. There were two trends in explanations I received: one trend was to focus on the acceptability of the perceived risk in childbirth; the other was to focus on the visibility of risk.

The acceptability of risk

During my interview with Lily, she began talking about the pressure she felt working at a birth clinic to not make any mistakes in the clients she agreed to work with. She told me that she felt that midwives in Missouri were "under a microscope." When I asked her what she meant by that she said,

Every single thing that I do people are going to judge. Whereas in a hospital, a physician –anything can be explained away by, "well there were risk factors." "I did a C-section because there were risk factors," "I told the mom she couldn't eat because there was risk," "I told the mom she had to be induced at 39 weeks because there was risk." Everything in a hospital can be explained away, even when it is demonstrated to be harmful to a mother and her child. "Well, you know, I thought there was risk involved." I can't say, well I kept this mom at the

birth center because there was risk in taking her to the hospital because she would have been treated like a sick person and her baby probably would have gone to the NICU unnecessarily. It's just not as acceptable." [Interview with author, February 25, 2013]

Lily's response suggests that she felt that not all risks in birth were perceived equally. This view touches upon one of the questions I raised at the beginning of Chapter 4: who determines which risk-taking behaviors are acceptable and which are reckless? The risk that was most salient to Lily in childbirth, the "risk in taking [a woman] to the hospital," did not carry the same power as biomedical definitions of risk did. Lily's belief closely ties into Marissa's interpretations about how the visibility of risks in birth affects people's interpretation of the safety of childbirth.

The visibility of risk

While speaking to Marissa, she began to explain to me how she felt the concept of pregnancy as a scary and dangerous life event had developed. According to her, the American "culture of birth" influenced how people viewed what the risks were in childbirth:

[Home birth] is often considered very strange and risky and selfish and there's all of these very ignorant ideas about midwifery care and about what birth is about...it permeates the culture and all the birth stories that go around are primarily about interventional, hospital births. They're totally scary –they're about control and making it convenient for the obstetrician. That's just how people have decided birth is based on the stories people are told and what you see in the media and what happens when you go to the hospital to have a baby. So people don't examine these beliefs very carefully and when they do and look at evidence –scientific evidence, their eyes start to open a little wider. [Interview with author, February 4, 2013, emphasis added]

There are a few things that are notable about Marissa's response. The first is her view of the public's perception of home birth as "strange and risky and selfish." Her account is reminiscent of Jordan's (1997:56) description of non-authoritative knowledge systems being perceived as "backward, ignorant, and naïve."

Equally intriguing in her account was her specific reference to “scientific evidence” as the key to changing one’s beliefs about risk. Marissa’s appeal to scientific evidence –*the* cornerstone of authoritative knowledge in medicine suggests the important role that appeals to authoritative knowledge play in increasing the visibility of different perceptions of risk in pregnancy and childbirth.

2. Risks Introduced by Place

The question of location was very salient in respondents’ analysis of risk. In general, participants tended to highlight the safe aspects of the setting they practiced in and the risks associated with the alternative setting. This trend confirms Douglas’ (2003) view that perceptions of risk tend to be attached to external sources.

Of the seven OBs I spoke to, five of them were open –at least to some extent, to the idea of home birth. Interestingly, the OB who most adamantly opposed home birth, Dr. Thompson, was very much in favor of both the midwifery model of care and midwives as primary care practitioners –but only in a hospital setting. Similar to Dr. Thompson, Dr. MacDowell expressed significant concerns regarding home birth. When describing her reservations to me she tied together the unpredictability of risk and the location of birth to explain why she thought home births were dangerous.

The hard part about obstetrics is that people have different risk factors but you cannot predict all of the people that are going to have problems and when there is a problem it tends to happen quickly and that would be my real fear. Like, if I was delivering someone at home when someone starts to bleed they bleed *then* and they bleed *fast*. Within the hospital we can send a med student down and within three minutes we can have blood running or have different IV medications going. [Interview with author, January 30, 2013, emphasis added]

Most of the OBs I spoke with, except for Dr. Thompson and Dr. Lynn, thought that home birth could potentially be an acceptable option under certain circumstances. While many OBs, including Dr. Evans, admitted, “there are aspects of a hospital birth that

probably make it safe,” they still felt that overall, hospital deliveries were safer, even for low-risk women (interview with author, February 5, 2013). A common trend I found throughout my interviews with OBs was for them to initially say that they thought home births could be acceptable under the right circumstances, but as the interview progressed to express with more certainty that they thought home births were dangerous.

For instance, earlier in my interview with Dr. MacDowell I asked her whether she thought women giving birth at home were at higher risk for adverse obstetrical outcomes. Despite her statement above she told me that, “I think in general, [home births] probably do have fewer complications. Their complications when they do happen I still think probably do become more severe than what they would in the hospital. But my guess is that their risk of complications is probably lower over all” (interview with author, January 30, 2013).

When I was speaking to Dr. Hamilton about home birth he said that in the “right population it might be okay. But knowing the pathology we see and how many things can go wrong, I prefer a hospital.” He continued, “It’s just that if you’re here and something *does* happen, we can take care of you” (interview with author, January 28, 2013).

The one OB who felt that for low-risk women home birth could be as safe as hospital birth was Dr. Bowers. Dr. Bowers described her practice to me when we first met as a “rare” practice: she works with only one other OB and does “a lot of natural births –that’s sort of our niche.” Unlike many of the OBs I met with, Dr. Bowers said that she approves a number of her patients who are interested in home births to seek out midwives, as long as they are low-risk. She spent some time explaining the limitations of both hospital and home births to me. She felt that, “the ideal situation is to have a birthing facility that can accommodate a lot of different risks rather than the model we have which is a single hospital

setting for everyone, which is not ideal for everyone” (interview with author, February 12, 2013).

Including Dr. Bowers, a total of four OBs offered suggestions for how the hospital model of maternity care might be improved. The common thread that tied each of their suggestions together was the belief that the location where the improvements should take place was in the hospital. For instance, Dr. MacDowell suggested a low-risk wing, which would, “resemble a birthing center with not as much intervention but still [be] close enough to an O.R. with the doctors kind of right there so that if there was something to happen they would still have complete access to the O.R.s right away –it just might *look* different” (interview with author, January 30, 2013).

Similarly, Dr. Evans’ suggestion for improving maternity care focused on bringing a more midwifery-minded approach *to* the hospital setting. He explained to me, “I’m not sure that we are always very good at helping [women] have the experience they want to have in a hospital setting. . . . If we’re concerned that women are having babies in what we would consider an unsafe environment, then I think part of our question to ourselves ought to be: Well what can we do to make them feel like they can have that experience in a place that we would generally would say is safer to have your baby” (interview with author, February 5, 2013).

While Dr. Evans acknowledged that he sees certain faults with both hospital and home birth care, by the end of his statement he has concluded that while a midwife model of *care* may be useful in decreasing hospital risk, the *location* of their care is not. Dr. MacDowell told me that while she realized the sterility of hospitals wasn’t particularly comforting, that at the end of the day it was “really for the good of [patients], but it means that there’s not lots

of soft cuddly things around.” This contrast is made even clearer by Dr. Hirst’s statement regarding why she viewed the hospital to be safer to the home:

...Because sadly were not just dealing with [anyone], we’re dealing with *you* and if you have other kids you are extremely important to your family. Anything can happen and it’s not just you; *we’re talking about two lives here*. I think all of us would just feel awful and horrible if something randomly bad was going to happen and we were not within distance of getting help in a timely fashion. And so even if the environment isn’t as nice, or isn’t as pleasing –as much as L and D is trying to be very cozy looking –you know we try to hide things and not make it look so medical, at least what we do have down is how to act very quickly in an emergency setting so that we can prevent that, “Oh my gosh, that’s god awful” scenario from happening [Interview with author, January 31, 2013, emphasis added]

The belief that OBs expressed about the appeal of home birth suggests that they believed women chose home births because of the emotional comfort that “cozy” environments and “soft cuddly things” provide. This exposes the crux of my finding regarding the difference in how OBs and CPMs think about the risk of the location of birth: while OBs acknowledged that the hospital may impose more emotional stress than a home environment, when it comes to physical safety, they all believed that the hospital was the safest setting for child birth. As Dr. Hamilton told me, “you can’t argue with the actual medical care.” But CPMs seemed to do just that. Lily’s explanation of what she viewed to be “misconceptions in the medical community” about the safety of home birth provides a great example of the midwifery perspective on the risks involved in the location of birth.

The truth is the majority of women choose to stay out of the hospital because they feel like staying out of the hospital is the *safer* option... And for a healthy woman, research shows that that is likely true. That she is less likely to have major surgery, or babies who go to the NICU, she’s less likely to lose a lot of blood –physical things, not even touching on the psycho-emotional risks with a woman who feels victimized during her birth, a woman who feels separated emotionally from her baby, who feels like birth was something that was done to her, not something she accomplished.... I think that’s why when doctors say that they need Pitocin to make birth happen, they’re probably right. Most of the times they do [need it] because the woman’s body is not functioning correctly because her mind is not supported.... That emotional aspect isn’t just warm,

fuzzies –it’s a critical part of health and safety.” [Interview with author, February 25, 2013, emphasis added]

CPMs tended to place equal emphasis on the physical and psycho-emotional aspects of birth that made it safe. However, they did not staunchly believe in staying as far away from the hospital at all costs. Caitlyn told me that she doesn’t “like seeing someone real far away from a hospital, because normal pregnancies do develop complications and I like to have a backup plan” (interview with author, March 9, 2013). But in turn, while OBs acknowledged certain benefits to home births, they all seemed to agree that, as a general rule, the hospital was the safest place for a woman. Dr. Evans provides an explanation of the OB mindset when it comes to birth location:

The challenge for us is all those times when it is not fine –that is a potential disaster. And so we would love for you to be somewhere where you can have that disaster appropriately managed because when it happens, the home is not the best place to manage that.... I want you to feel safe, but I don’t know that I am going to support a different standard of care just so that you can deliver in the comfort of your own home. Because I think you have to acknowledge that there is a different standard of care if you choose to deliver there.

My research indicates that what typically mattered to CPMs was not *where* the birth was held, but whether the woman felt safe and supported. For instance, when I asked Marissa if she thought there was a setting that was best for giving birth she told me that, “the midwifery model is the most supportive for [natural and empowered birth]. I’ve seen physicians really embrace the midwifery model and I see midwives who really embrace the medical model, so it’s not so much the location as the practitioner’s approach” (interview with author, February 4, 2013). And in fact, a number of OBs I spoke to did embrace the midwifery model of care. The most direct supporter was Dr. Thompson, who told me, “she appreciated the time, the care, [and] the sort of quality of birth...supported by midwives” (interview with author, February 11, 2013).

3. Risk Introduced by Practitioners

The third category that OBs' and CPMs' perception of risk fell under was risks that were introduced by the birth attendant. These risks can generally be categorized as: (1) risks regarding the attention and support that a practitioner gives to a women, (2) risks about a practitioner's ability to provide adequate care, (3) risks introduced by the power to make authoritative decisions, and (4) risks introduced by lack of communication and continuity of care between CPMs and OBs.

Attention and support

Midwives believed that relationship building throughout pregnancy and attention to women in labor was extraordinarily important for maximizing the safety of birth. In fact, when I asked Emily what she thought contributed most to a birth's safety she told me, "paying close attention and really caring about the person.... If you're really in tune with everything that's going on you can tell when things aren't going right and you can be alert to when you need to transfer" (interview with author, March 9, 2013). No OB told me that observing a woman continually throughout labor was a factor that could either increase or decrease the safety of birth. In fact, two OBs directly told me that having to passively watch labor was not something they were comfortable with. When Dr. MacDowell was explaining the difference between how she and the CNM in her practice managed labor she told me, "I am not willing –that may be a little harsh, but I don't really want to sit there and talk them through different positions or sit with them through all of their second stage of labor and pushing.... Part of my personality wants to be a doer. Part of my personality is not to sit there and coach you through eight hours of labor –that is what the nurse is for" (interview with author, January 30, 2013). Dr. MacDowell's statement contrasts with what Emma told me when we were talking about the value of attention and support. She used the analogy of

fans at a football game to indicate how important she felt attention and support was to reducing risks during labor.

Birth is an intense time. Having someone there to support you and telling you you're doing well and being your cheerleader, letting you know that everything is going well –that builds confidence. And when somebody has confidence they do a good job; they have less problems, just like a game. If you go to a football game and everybody is cheering for you to win, that fills you with confidence and you win. But if everybody just sat there in the bleachers and said nothing. They would be like, “Oh why are we here? He's got no confidence, he'll probably lose.” I feel like having that person to cheer you on makes all the difference. [Interview with author, March 15, 2013]

While OBs did not claim that personal attention and support were unimportant factors, it appeared that most of them did not see it as part of their job. As Dr. MacDowell told me later in our interview, “I would be interested to learn a little bit more about positioning or comfort measures and things like that. But I also think it's hard to change our environment and the way we are –I don't get paid for that, I get paid to deliver a baby” (interview with author, January 30, 2013). It seems that what practitioners felt that they were hired to *provide* was quite different.

Ability to provide adequate care

Both groups viewed the practitioner's competency as having the potential to both significantly increase and decrease the risks of childbirth. In relation to other midwives, CPMs' responses tended to focus on the role that experience played in increasing the safety of a home birth. For instance, Marissa explained to me,

Beyond [parents being informed], I think there is enough evidence to show that it really makes a difference to have a very well trained provider at the birth. They use that experience with birth and either through apprenticeship or formal education have acquired the skills to understand the physiology of birth and understand when things are veering from normal to either offer appropriate interventions at home or to transfer the woman to the hospital. I do think that is a safety net. [Interview with author, February 4, 2013]

CPMs believed that a birth attendant's skill and experience was more important than any particular qualification or certification. At one point in my interview with Lily, she began talking about her experiences attending births at home and at a birthing center. She told me that the reason a number of her clients come to her is because their insurance covers birth center births but not home births. I asked her why she thought insurance companies made that distinction and she replied, "Because ACOG has made the decision. They say home birth is not safe and birth in a birth center is safe. But that's not scientifically valid." I asked her if she would explain what she meant:

If you think births are dangerous, and you think facilities are safe, then the facility is going to be your preferred place, even if –like in this facility, the only emergency things that we have are things that I carry to every single home birth. For me, it's the professionals that make it safe. Not the walls. Here I have oxygen; I have breathing masks for mom and baby; I have medications and IV supplies. I have a big duffle bag that I carry to every single home birth that has the *exact* same things. [Interview with author, February 25, 2013, emphasis added]

The contrast between Lily's statement about the safety of birth and the trend in OB responses from the previous section, which essentially was that location made all the difference, is significant. In fact, four OBs had told me that they would find a birth center a more acceptable choice for a mother than a home. For instance, Dr. Lynn said that she thought birthing centers were not as risky as home births: "[In] birthing centers you have available emergency care, usually there's a C-section room in house or right attached to the building so to me that's not the same as when you're at home and having to take an ambulance ride to a place" (interview with author, January 28, 2013). This illuminates not

only some misinformation between the medical and midwifery communities but also the different value placed on practitioner and place in making birth safer.⁹

In regards to the medical community, CPMs often mentioned concerns about how and when OBs make decisions to intervene in labor. They often cited time constraints as a factor that they felt affected OBs' ability to make the best decision for the woman in labor. Caitlyn told me from the time she had spent working as a CNM in a hospital that, "the doctors often start to get a little antsy if they're not following that Friedman's curve –If they don't think it's going quick enough they'll start to augment. And once you start one intervention, you're often going down a slope of interventions that often leads to a C-section." However Caitlyn was sympathetic to OBs, recognizing that the difference in volume of women being cared for limits an OB's ability to manage births in the same way as a CPM would.

They do such a high volume of births, especially compared to home births and what CPMs do, and it really is an inconvenience for them on their family life to be called out all of the time. I do feel kind of bad for them in that. I think

⁹ Because I received such conflicting information regarding the functions of a birth center, I did some additional research on the subject. According to the American Public Health Association's (APHA) guidelines for licensing and regulating birthing centers, a center must have the following equipment: (1) cardiopulmonary resuscitation (CPR) equipment, (2) oxygen, (3) positive pressure mask, (4) IV equipment, (5) equipment for maintaining infant temperature and ventilation, (6) blood expanders, and (7) "medications identified in protocols drafted by professional staff" (American Public Health Association 1982:3). The APHA goes on to say that, "The birth center is not an ambulatory surgical center. Surgical procedures should be limited to those normally accomplished during uncomplicated childbirth...and should not include operative obstetrics or cesarean section" (American Public Health Association 1982:4) The American Association of Birth Centers (AABC) affirms APHA's standard for licensing, adding that while an accredited birth center must provide a means of transport between a center and hospital, it should not be in a hospital and must be, "governed as an organization that is separate from other health, hospital or medical services" (American Association of Birth Centers 2008:6). Currently there are no birthing centers in Missouri that are licensed because the Missouri Department of Health's standards requires birth centers to the meet the requirements of an ambulatory surgical center.

sometimes they kind of want to rush things along so it kind of fits their schedule a little bit better. But I can see why they do that. Because if you really look at their family lives –you know we kind of gripe on the doctors, but if you look at the other side of what they’re really going through: how much they’re on call, and how much they’re home life is interrupted just because of the volume they do –they do so much more.” [Interview with author, February 9, 2013]

The risks that OBs felt were introduced by CPMs as birth attendants focused on whether they had the training and qualifications to both adequately screen for high-risk women and provide interventional care if complications arose during birth. More than anything, OBs indicated a lack of knowledge about CPMs in general, which made them uncomfortable trusting their ability to manage births. Dr. Hirst implied this lack of trust in CPM ability when she stated, “Would I ever advise my family members or closest friends to have a home delivery –without me present? Or anesthesia? It makes me nervous. I don’t know if I would do that.” Later in our interview I asked Dr. Hirst if she thought that it could ever be a reasonable decision for a woman to decide to have a home birth she acknowledged that yes –for a certain type of woman it theoretically could be a reasonable option. The issue she had was with the midwife’s ability to determine who would be an appropriate candidate for a home birth. She told me,

I don’t know anything about their training, I’m presuming they are well-trained and...are capable of making these decisions, but I actually don’t know that so that comes down to a lack of communication or links between these roads. Who’s making that decision though? That’s my problem. I don’t know who’s making the decision that you as an individual are a great candidate for having a home delivery because the odds are so low that there would be a problem? I don’t know –I’m probably not, I’m not sending people back home to have their own deliveries. [Interview with author, January 31, 2013]

Indeed, much of OBs’ reservations about the qualifications of CPMs seemed to be isolated into two general sources of concern. The first was whether CPMs had the ability to provide quality care. The OBs who were familiar with midwifery had gained their familiarity through working with CNMs in a hospital setting. Therefore, it was not uncommon for

them to generalize what they knew about CNMs to the whole scope of midwifery practice, occasionally inaccurately. More of the time though, their knowledge was not *inaccurate*, per say, but incomplete. For instance, OBs commonly only made the distinction between CNMs and non-nurse midwives, referring to all midwives that did not operate in a hospital as “lay” or “uncertified” midwives. The second general concern OBs voiced was with the CPM’s ability to act as a competent decision-maker in childbirth because of their perceived lack of training managing emergency complications. Views on the role of practitioner as decision-maker turned out to be another source of diverging opinions within my data.

Locating the nexus of decision-making power

A very important aspect of care within the CPM community regarded who had the decision-making power in birth. Rather than viewing themselves as *providers*, per se, CPMs tended to view themselves as *partners* with the women they were attending. Lily told me that when she takes on a new client, “It’s viewed as a partnership from day one. That you have some services and some knowledge that you want from me, and I have some things to offer you, and we’re going to do this together –That’s the relationship through the whole thing” (interview with author, February 25, 2010). The importance of a woman’s choice and autonomy to make her own decisions often seemed to be of utmost importance to CPMs.

However, the degree to which they thought the decision-making power should belong to the woman varied. Lily told me that she has all of her clients sign a document saying that they would be willing to transfer to the hospital if she felt it became necessary. Other CPMs, like Jade told me she tries to educate her clients as much as possible so that they’re able to act as the primary decision-makers. Most CPMs focused on the importance of mutual trust and collaboration in making decisions, especially the decision to transfer to a

hospital. Emily expressed the most radical view, explaining to me that the women she attends have *all* of the decision-making power. She indicated that autonomy to choose how to give birth is a personal right that should be upheld, even if she thought a birthing situation had become dangerous. She explained how the relationship she builds with her clients usually leads them to trust her opinion if she thinks a transfer to the hospital is necessary.

However, while she had never had this experience personally, she explained to me,

If I was at a birth and somebody wanted something that I didn't think was safe –say I thought that they needed to go to the hospital and they wouldn't go –then I feel like they have every right to make the decision to stay home, even when the midwife is not comfortable. But I think the midwife also has a right to not work with them anymore if she's not comfortable with the birth plans.

[Interview with author, March 9, 2013]

Emily's view though was not the typical response I received from CPMs. The general consensus was that while the midwife had a shared responsibility with the pregnant woman to provide information and educational tools, it was the woman's responsibility to make decisions about her health. They expressed that because they spend so much time building relationships and trust with their clients that in the rare situation where they tell a client that they really should transfer to the hospital, the client tends to agree.

CPMs worried that OBs did not give their patients those same decision-making powers. They claimed that decisions were often made for them, which added considerable risk to the process of labor and delivery. Emma believed that, "You don't get choices often in the hospital, it's very rare that you get choices." She used epidural as an example to illustrate her point: "Sure, you may be asked if you want to get epidural, but you're going to go in and you're going to be pounded into getting an epidural...I hear people all the time say, 'I just gave in,' the pain was hard and they're offering something to alleviate the pain –of course they take it" (interview with author, March 15, 2013).

However, Dr. Thompson voiced to me that she felt like the suggestion that women don't have choices in the hospital was not accurate. She was so offended by the perception of associating OB care with a lack of choices that she fervently explained her position to me when the topic came up in conversation.

You have no idea how many patients ask me, "Do I have to be tied to the bed?" People ask me this! In prenatal visits! "Will I be able to move or will I have to be in my bed unable to move?" First of all –nobody is tying anyone up. And I tell you, it's not like just one person has said this to me, people say it all the time: "If you have your baby in a hospital you'll be restrained, you won't be able to move." You can have your baby squatting in the corner leaning over a birth ball –I don't care! [*You would feel comfortable delivering a baby like that?*] Yes! No one is tying you to anything! This is crazy! [*Do you think most obstetricians would be comfortable delivering a baby under those circumstances?*] I hope so! I hope so for Pete's sake!" [Interview with author, February 11, 2013]

But based on the my findings, most OBs did not seem to be comfortable delivering babies under such conditions, mainly because it was not something they were used to encountering. For instance, in telling me about a woman who had come to her hospital wanting "to do a natural birth," Dr. Lynn indicated how "uncomfortable" and "awkward" the situation had made her. When I asked her why she told me,

Saying "Oh, I had this delivery yesterday and I couldn't do anything, we just had to stand there." And you know I think she was on the floor for a little bit pushing –it's just not something [we're] used to doing. We're not used to catching babies squatting anymore so you're like, "Oh god, I hope I can do that!" So [it's] just awkward because it's not what's in your everyday repertoire. [Interview with author, January 28, 2013]

More commonly, OBs placed the power for decision-making in their own hands when describing how labor is managed. A great example of this comes from Dr. Hirst's explanation of how she manages abnormal labor.

So, say she's gone four hours, but baby still looks good –maybe she's thinned out her cervix, maybe there's a little bit of change, we extend that to another set of two hours. [If there is still no change]...there are other signs usually on an exam –like caput and uterine swelling that tell us, you know what, big picture, we are not going to make it to a vaginal delivery. We just unfortunately are not going to get there. So rather than have her sit here and wait, wait, wait, wait –

even though baby looks fine, we're just risking her getting further along and increasing her risk of morbidity as opposed to just doing a C-section earlier on when we know the endpoint is very unlikely in terms of the vaginal delivery route. So we decide to just go now." [Interview with author, January 31, 2013]

Clearly the locus of decision-making control in Dr. Hirst's account was practitioner-focused, very different from some of the CPMs statements. But there appeared to be quite a bit of variety even among OBs in what decisions they were comfortable allowing women to make. The general theme was that the decision-making power was ultimately focused on the practitioner, while trying to allow women as much control as possible to exert their preferences when it was deemed safe enough to do so. For instance, Dr. Hirst told me that women did not have to be hooked up to EFM throughout their entire labor. Rather, if they wanted to walk around the hospital it would be perfectly fine, "as long as her strip looked good" (interview with author, January 31, 2013).

Most OBs acknowledged that not as many options are available to women in the hospital. Dr. Evans said that OBs "really don't do a very good job at managing expectations of women who range from, 'I want an epidural before I ever have a contraction,' to, 'I never want to hear the word epidural during my admission to the hospital'...and to be fair it's very hard to do in a hospital setting" (interview with author, February 5, 2013).

However, it is important to note that both groups of practitioners placed a high value on informed consent. Especially in regards to avoiding malpractice suits, OBs felt that it was important to make sure that women were informed about procedures. Dr. Evans concluded, "I think from a physician provider standpoint, there is absolutely an opportunity to have an impact on the frequency of [malpractice] cases just by learning to be a good communicator and talking to your patients about risk, and making sure that when they sign that surgical consent form they know what they're signing and they know what the risks involved are" (interview with author, February 5, 2013).

Communication and continuity of care

Continuity of care was described as an important aspect of both CPM and OB care. For CPMs, this was very much related to their view that building a relationship with their clients over time was an important part of prenatal care. While Dr. Bowers monitored and delivered all of her own patients herself, all of the other OBs worked in rotational practices and didn't seem to think that that affected their relationship with their patients or the woman's experience during birth.

However, continuity of care was expressed as a factor both CPMs and OBs worried about in transfers between the home and hospital. OBs reported that the vast majority of the times they had handled home birth transfers, they hadn't thought the midwife had accompanied the woman to the hospital. Thus, they often expressed disapproval over what they believed were midwives' inability to provide comprehensive care to women. Dr. Thompson expressed this belief very strongly when she said,

As a healthcare provider, I do not respect someone who is not willing to participate in the complications and who only pats themselves on the back when there are successes. But when that's your patient that you have coached through their whole pregnancy and you don't continue to support them when they need medical care –I think it's unconscionable to just sort of disappear when they need you the most. Obviously I believe that there is an emotional connection that midwifery provides, but when [their clients] need medical help and they disappear...that just seems, I would *never* do that to one of my patients.
[Interview with author, February 11, 2013, emphasis added]

But the CPMs I spoke with described continuity of care as very important to their model of birth, especially in transfers. Marissa told me, "Hospital transfers are *always* accompanied by at least the primary care giver –the midwife" (interview with author, February 4, 2013, emphasis added). For instance, Emily told me she transferred 12 percent of her clients to the hospital and stayed with them throughout the transfer process (interview with author, March 9, 2013). Another example was Caitlyn, who explained to me the process

she had recently gone through transferring one of her clients to the hospital who was suffering from a postpartum hemorrhage. She told me she remained with her client throughout the entire experience (interview with author, March 9, 2013).

But their experiences regarding the smoothness of transitioning from the home to the hospital varied considerably before and after the legalization of CPMs in 2008. Jennifer recalled in detail how traumatic transferring to the hospital prior to 2008 was.

It was horrible. It was awful. And it was unsafe. There's a huge difference now. We would have to pretend that we were doulas or my preceptor would sometimes pretend that she was a grandma. You'd have to give medical information to the dad; he then would have to, in this crazy sleep-deprived state, relay that information to medical people, who were incredibly suspicious. They're saying that this is a planned home birth, but the midwife didn't come while you're standing right there. It was really, really hard. And I feel like our transfer rates are definitely higher now and I think that's a good thing. I think that there are times where we didn't transfer where maybe we would have now. [Interview with author, February 27, 2013]

While my findings do not directly account for the discrepancy between OBs' and CPMs' accounts regarding continuity of care, I do think much of the reason for this discrepancy can be explained by the need for CPMs to lie about their role in the home birth to protect themselves legally. Caitlyn provided support for this hypothesis when she told me that she thought, "Part of the problem was that [midwives] were so scared to transfer because they weren't practicing legally that they would wait until it was way late. I think [hospitals are] already seeing that, 'Oh okay, [midwives] can transfer in and this can work'" (interview with author, February 9, 2013).

Most of the CPMs I spoke with echoed Caitlyn's sentiment that legalization had made transfer experiences go much more smoothly. Marissa told me that she felt like the relationship between OBs and CPMs in transfers "feels like it continues to improve. I don't know if that's about exposure, legality, attempts to be respectful and kind when we come in,

or what, but it seems to be a pretty smooth transition at this point in time” (interview with author, February 4, 2013).

Part C: Additional Findings

Influence of Malpractice Claims

During the developmental phase of my research, I posited that the fear of malpractice lawsuits would be an important factor in understanding how practitioners perceived risk. Thus, a section of my interview questions focused on trying to discover if and how the fear of malpractice and constraints of insurance influenced how practitioners managed birth. I had read a number of studies –including ones produced by ACOG that demonstrated that the fear of malpractice lawsuits influenced the way that OBs practiced. I was interested to find out more about this, and interested to see if the same trend existed amongst CPMs. My hypothesis was that the greater the fear and the stricter the constraints, the more conservatively the practitioner would define risk in birth.

However, while my interviews elicited a number of intriguing responses from OBs and CPMs alike in terms of their perceptions of malpractice and insurance, I do not believe that my findings were able to provide strong support either for or against my hypothesis. The vast majority of OB respondents indicated that they did not believe the risk of malpractice suits influenced the way they managed births (consciously, at least). This finding, while certainly valid from the perspective of their conscious perceptions of the way they practice, is at odds with a number of previous studies that have indicated that OBs do, in fact, often alter their practices out of the fear of being sued (For examples, see American Congress of Obstetricians and Gynecologists 2011; Yang 2009; Xu et al. 2008; Ortendahl 2007; Dubay 1999). So while I will present my findings as they are in this section, I would

like to first acknowledge certain limitations of my study designs that may have skewed my results.

Study design limitations

I believe there are two reasons that can largely account for my inconclusive findings. The first was the limitations in my research design. My data collection was based on qualitative interviews that occurred in a setting largely removed from the setting in which the practitioners practiced. Incorporating statistical data that showed the rates that the OBs in this study, for example, used certain interventions, would have increased the strength of my study by providing a mechanism for comparing what was told to me in an interview environment and how they actually performed in an obstetrical environment.

The second was my inability to adequately anticipate the different nature of occupational risk perception and childbirth risk perception. While I believe my design was appropriate for determining how practitioners perceived risks that influenced the women they attend, it appears to have been inadequate for determining how practitioners perceived self-reflective risks. For instance, while each OB I spoke with acknowledged that risks of malpractice lawsuits were an omnipresent occupational risk of practicing obstetrics, only two openly acknowledged that it influenced the way they managed births.

Findings

Each of the OBs in this study had malpractice insurance and recognized that the risk of malpractice suits was a pervasive part of obstetrics in the United States. Dr. Evans and Dr. MacDowell each told me that they believed that those risks did not influence the way they practiced. For instance, Dr. Evans told me, "I guess I've always felt that if I start second guessing myself because I'm worried I'm going to get sued or not, then I probably have

chosen the wrong profession and ought to think about what I'm really choosing to do" (interview with author, February 5, 2013).

Other OBs told me that while they believed that the risk of malpractice lawsuits did not consciously influence the way they practiced, they acknowledged that those risks possibly influenced the way they practiced on a subconscious level. For example, Dr. Thompson told me, "I'm sure it does. I'm sure it's ingrained in my brain. I think what drives me is safety of the mom and baby more than anything. I don't think I've ever done something because I thought I'd get sued. But to say it's not in there would probably not be fair to the nature of humans. I don't think so though" (interview with author, February 11, 2013).

Dr. Hirst and Dr. Hamilton both told me that while it did not affect their decision-making, they were sure it influenced some of the standard practices they followed as OBs. Particularly, both described how the risk of being sued had led them to document their interactions with their patients much more diligently. Dr. Hirst told me, "I feel like the way we're trained is training as a result of being in a litigious culture. Constantly, I think you feel like as a resident that things are made very clear that you chart everything. You have to document, document, document" (interview with author, January 31, 2013).

But each of the five OBs discussed above indicated that they believed they made decisions based upon what they thought was best for the mother and baby, not based upon the risk of being sued. As Dr. Hamilton memorably told me a number of times throughout our interview: "mal occurrence does not equal malpractice" (interview with author, January 28, 2013).

Dr. Lynn and Dr. Bowers were the only two OBs that told me that they felt that the risk of malpractice actively influenced the way they practiced obstetrics. The conversation I

had with Dr. Bowers about the influence that the risk of lawsuits have on the way she practiced was very illuminating in terms of understanding the professional and emotional pressure that the litigious culture of American maternity care puts on OBs. I met Dr. Bowers at her home, where she was taking care of her newborn baby daughter. When I asked her whether the risk of malpractice influenced the way she practiced obstetrics she told me, “I think it would be naïve to say it doesn’t...I think that with the patients we perceive to be more litigious we will be more interventional in terms of our approach to them, which may or may not result in better medical care for them.” But later on in our interview, she opened up to me about more of the emotional aspects of working in a litigious environment.

Obstetrics is the highest of the highs in medicine and the lowest of the lows.... I had a really bad outcome recently. There was a uterine rupture on a woman who had never even had a C-section, she had never had anything done to her uterus and her uterus ruptured and her baby isn’t doing well. It’s really dehumanizing to feel really horribly sad and grieve for this family and this baby. You know they came into labor and expected to take home a baby like mine. And they are taking home a baby that will never function. But then to have to wonder, how are they going to interpret those notes in a courtroom? Because it *will* go to a trial; you can’t, I mean nobody is going to be able to –it’s incredibly expensive to care for this child. Someone’s got to pay for it.... It’s really emotionally exhausting and it makes you feel guilty for worrying about [your liability] but in real life you have to worry about it because your insurance only covers so much and a case can easily go way beyond that...That’s really hard for me, that inability to fully just grieve with the family and the baby. And of course you think well could I have done something wrong? You think about that all the time as a physician. When you have any outcome that’s not perfect you think back and go through the thoughts of “what if I...” But to not be able to just go through that process with purely...to have it diluted by this umbrella of legality and, *Oh my god, they could sue me for millions of dollars*, way beyond what my insurance covers. How do I have my home assets protected? How do I have them protected for my daughter and my husband? [Interview with author, February 12, 2013, emphasis added]

Dr. Bowers’ candid response illuminated some the complexities of practicing obstetrics in America. Her response demonstrates how liability and personal grief creates an “emotionally exhausting” environment for OBs.

Of the midwives I spoke to, only Lily had malpractice insurance. The rest of the CPMs did not. I generally found that they were not interested in obtaining it, either. They were not interested for one or more of three reasons: (1) they felt that their volume of clients was not high enough to justify spending the money for malpractice insurance; (2) they believed that their relationship of mutual trust with their clients protected them from lawsuits; (3) they believed that having malpractice insurance would put them at higher risk for being sued. Marissa, who had had insurance for a short while years ago when she worked at a birth center, touched upon all three of these points during our interview:

I don't think there is one CPM in the state who has [malpractice insurance]. And I do believe that we just don't have the volume of clientele, nor do we charge enough to afford malpractice insurance....I've really operated from the position that my greatest protection both on a soul level and on a very practical worldly level is to develop relationships with people and through that be able to give that care through the relationship, but also in that process –in developing that relationship, I think I become very human to the people that I serve. That protects me when people get sued: for them to see me as human, and for me to see them as humans, so that really certainly does seem to provide a certain level of protection against litigation. Along with the fact that they come to my home often and they see that I live a very modest life here –I'm obviously not driving around in a Mercedes or BMW. There's not much to get out of me financially, if I'm very honest. I think that becomes very clear to people, that they're not going to be able to benefit financially from suing me and that it's not the best way for them to express their dissatisfaction with the care or their absolute disappointment with the outcome of the care. [Interview with author, February 4, 2013]

The perceptual differences between how OBs and CPMs perceived malpractice risk and litigation pressure were clearly vast. Whether or not OBs' perception of risk influences the way they practice obstetrics remains unclear. Further research that compares verbal responses in an interview environment to actions in a working environment would help to illuminate the validity and accuracy of my findings.

Thoughts on the Future

As a point of personal interest, I often asked participants towards the end of our interviews what they thought the future of maternity care in Missouri would look like. I was interested in hearing whether they felt collaboration between midwives and obstetricians was likely and whether that was something they would approve of. In this final section, I present my findings based on participants' responses to this final question.

A number of practitioners –both CPMs and OBs, felt that it was likely that the future of maternity care in the United States would be a more collaborative model. Not all of the CPMs and OBs were particularly excited about this trend. For instance, Marissa told me that while she felt that the trend in midwifery was towards integration, she wasn't overly enthusiastic about what integration would mean for her practice.

I'm not really excited about having malpractice insurance; I can't trust that –you know [the one time I had malpractice insurance] was the one time I got sued. That was a pretty powerful message to me that the risk I take as a provider is to carry malpractice insurance so there's some sweet things about kind of being under the radar in that way and having a very small practice and a very intimate practice. But you know...I think that [a collaborative model] is probably the future of midwifery, that we will become more accountable... I see it as the future of midwifery in this country, and again it's not something that I'm so terribly excited about but at the same time I do think that it will increase access to care for all women rather than the few that are able to afford it or to justify it as an out-of-pocket expense. [Interview with author, February 4, 2013]

Dr. Bowers explained to me that she thought the reason a collaborative model had not been realized in the United States yet was because of the financial constraints it would put on obstetric practice. While she was very supportive of collaboration she told me that, “normal deliveries bill the same as someone who's complicated, so if the midwives did all of the fun, easy, bread-and-butter deliveries and were able to capture that revenue and physicians were left with the really hard complicated patients...it'd be a little bit of a kill joy” (interview with author, February 12, 2013). In a very similar way, Dr. Lynn told me that she felt an integrated model of maternity care would negatively affect her practice. She said that she

would, “lose out on some of my patient care. I wouldn’t feel like I was as happy in my career, not that I would be mad at the other [practitioner], I’d just feel like I wasn’t getting as much out of my career as I wanted to. I don’t want to just be called in at the last minute...I like doing surgeries, but I also like taking care of my patients through the whole course” (interview with author, January 28, 2013).

A number of CPMs as well had less optimistic views on integration. Emma told me that she couldn’t imagine it happening “whole-scale in the United States unless they change the way they train their doctors. That would be the only way that that could happen. The doctors would need to be trained to respect birth, to respect midwives, and to respect women” (interview with author, March 15, 2013).

Like Emma, Jennifer felt that an integrated system of maternity care in the United States was not likely. However, she cited different aspects of maternity care that she thought would need to change if integration was going to be possible.

We have to have [a separate university-based non-nurse midwifery] if we want to be integrated. I don’t think that the CPM can be integrated into our system and I think the CNM is too much –people are basically doctors by the time they’re done with that. If our goal is to improve outcomes and a midwife for every woman, it can’t be the CNM, I don’t think. [Interview with author, February 27, 2013]

But not all practitioners were pessimistic. Lily and Caitlyn both told me that it would be their dream to have a fully collaborative system of maternity care in the United States (granted, they were the two who also possessed CNM qualifications). Dr. Thompson also thought collaboration would be a step in the right direction for American maternity care. When I asked her whether she could see midwives and OBs working together she was very enthusiastic about the potential. “Heck yeah! We should hang –we should work together, for sure. We should have them in our offices –there is no question. They can do pap smears; they can do breast exams; they can do everything except for surgery, really. So why not work

together?” (Interview with author, February 11, 2012). Whether CPMs would want to be in OBs offices doing pap smears or breast exams is certainly debatable, but the interest Dr. Thompson had in learning more about non-nurse midwifery care was echoed amongst other OBs as well.

The perceptions of the future of maternity care varied widely. Most were open to removing the barriers to communication between CPMs and OBs. It seems clear based on my findings that what is really needed in order to improve the functionality of maternity care in Missouri is education. Dr. Bowers closed our interview with a statement that I find to be quite fitting based on my results, so to close this chapter I'd like to quote her:

It's become such a dichotomous issues in Missouri. It's either you're pro-midwife or you're not and in my mind that's not what it's about at all. It's all about the fact that we have a defective system that doesn't utilize midwives well and we should figure out a way to use midwives better. From a health standpoint, they're cheaper. From a medical care standpoint they shouldn't have to go to school for nearly as long. I think we should find a better way to work with them and use them. [Interview with author, February 12, 2013]

CHAPTER 6 CONCLUSIONS

The qualitative study presented in the previous chapter illuminates a number of trends –both divergent and convergent, in how OBs and CPMs think and speak about risk. These trends will be discussed below. While overarching patterns did emerge, many of which were in line with preexisting research, what I hope to have demonstrated by focusing my findings on direct quotes is that a considerable variability exists in how risks are perceived within each group as well. Instead of strictly opposing risk perceptions, my findings suggest viewing risk perception as a continuum might not only be a more appropriate way to conceptualize how OBs and CPMs perceive risk, but also act to bring the two groups’ historically competing worldviews closer together.

In the following discussion I will highlight some of the most relevant trends in the data by responding to the research questions I posed at the beginning of Chapter 4. I will also relate my findings to the preexisting literature where applicable. At the end of the discussion I will describe the implications of my results and then offer my interpretation of what this research has suggested about the future of maternity care in Missouri. Finally, I will propose areas for further research.

Discussion

At the beginning of Chapter 4, I posed three questions regarding risk perception in maternity care. The first was: *how are risks defined in maternity care?* My findings suggest that CPMs and OB/GYNs each call upon multiple, interrelated sources of knowledge to both define and justify risk in childbirth. Definitions were the product of their personal experiences, acquaintance with scientific literature, and education. Instincts and intuition

appeared to be an important fourth source of knowledge that played into CPM's definitions of risk while the constraints placed on OB/GYNs protocols, guidelines, and recommendation influenced how they defined risk as well. Definitions varied considerably both within and between groups of practitioners. But certain trends in how each group defined risk did emerge.

The locus of OBs' definition of risk focused on the pregnant woman. Risks were seen as entities that resided within the pregnant body that, if discovered and controlled, could minimize the likelihood of serious complications arising. Their perceptions indicated that locating these risks –both predisposed and pregnancy-related, is aided by advanced technology, probability reporting, and scientific knowledge. Their discussions of risk concentrated on the need to be prepared to deal with complications quickly and effectively if and when they arose.

The locus of midwives' definitions of risk often originated in the environment that a pregnant woman found herself in rather than in the pregnancy itself. Quite often CPMs' definitions of risk involved things that were *done to* a woman. Thus, they tended to perceive things like medical interventions or withholding decision-making power as salient risks in childbirth. Until they saw indications of the woman being the source of a risk, the standard position they took was that risks were more often projected onto women.

Broader social and cultural values seem to act as the lens through which definitions of risk were viewed. These findings support Douglas and Wildavsky's (1982) cultural theory of risk as well as Jordan's (1978/1993) theory on authoritative knowledge. Even the practitioners themselves understood that not all of their definitions of risk had equal influence. The awareness that the biomedical model's definition of risk in childbirth carried more social weight than the midwifery model's definition was demonstrated by Lily's

assertion about the social acceptability of her definition of risk (p. 103-104) as well as Marissa's assertion about the American "culture of birth" (p. 104). The sources of knowledge that midwives and OBs called upon to develop definitions of risk were clearly ingrained in social norms and cultural values. Their sources of knowledge, in turn, acted as their basis for developing risk perception. Thus, my findings suggest that because perceptions of risk are products of socially constructed definitions, that the risks that each group of practitioners perceived as most salient were also substantially influenced by social and cultural norms.

The second question I posed was, *who is responsible for regulating and making decisions regarding risk?* My research suggests quite a divergent split between CPMs and OBs in their views regarding responsibility in childbirth. CPMs classified themselves as guides, educators, and supports for pregnant women. They indicated that their primary responsibility as maternity care practitioners was to make sure their clients were educated enough to make their *own* decisions. Most of the control in actual decision-making was placed in the hands of the women themselves. There was some variety in the extent to which midwives relinquished decision-making power. Lily was the most conservative, refusing to take on clients unless they signed a consent form acknowledging a willingness to transfer to the hospital (p.115). Emily was probably the most liberal, telling me that each woman has a fundamental right to choose the birth she wants, even if that choice potentially puts her or her baby at risk (p. 115-116). The majority of CPMs fell in the middle: they acknowledged that it was important for their clients to take responsibility for their pregnancies and births, but also indicated that their relationships with their clients created an environment where if they felt strongly about a certain decision, the woman would usually trust her judgment and agree.

The high value that CPMs placed on women as decision-makers was not represented in the same way amongst OBs. They tended to view their training as having imbued them with the knowledge and experience necessary to make decisions that were the safest for women and babies. This view is likely a reflection of OBs' position as decision-makers in life-threatening situations, where they are the ones who make the recommendation to perform surgery and thus deal with the consequences of their decisions if there are negative outcomes. They perceived themselves as bearing much more of the responsibility for making the "best" decisions they could, pursuing the safest outcomes possible, and basing their actions on evidence-based medicine. As Dr. Hamilton said, "we use the best evidence to do things and we always do what's right for the patient" (interview with author, January 28, 2013).

While not stated explicitly, the undertones of OBs' responses suggested that because they saw pregnancy and childbirth as presenting risks not only to the *woman* but to the *unborn child* as well, that the woman did not have unlimited autonomy to make decisions. They appealed to risks to the mother as well as the baby. As Dr. Hirst told me, "anything can happen and it's not just you, we're talking about two lives here" (p. 108). However, just because OBs tended to see themselves as the ultimate authorities in making emergency decisions in birth, does not mean that they devalued their patients' desires to make their own decisions. On the contrary, they viewed communication and informed consent as vitally important aspects of their responsibilities as practitioners.

The difference between the OBs and CPMs was that because OBs felt that they had a greater personal responsibility to make the best decisions for a woman that if they did not make the best decision, the burden of blame was on their shoulders. As Dr. Hamilton repeated to me almost compulsively throughout our meeting, "mal occurrence *does not* equal

malpractice” (interview with author, January 28, 2013). With the responsibility for decision-making focused on OBs, the tendency was to feel like they had to prove that every negative outcome was *not* their fault. While only two OBs indicated that the risks of malpractice lawsuits actively affected the way they make decisions, all of the OBs clearly indicated that the pressure to consistently make the objectively “best” decisions for their patients –women and babies, was a great professional and emotional burden. The professional and emotional conflicts of practicing obstetrics that Dr. Bowers described (p. 124) was implied in a number of my other interviews with OBs who felt they carried a great burden as physicians. The conflicts between emotional grief, professional responsibility, self-doubt, estrangement from patients, and desire for the patient’s family to receive the necessary reparations when malpractice *or* mal occurrence arose, created a complex web of factors that clearly influenced, if not the way they practiced (as most of them claimed, at least the way they perceived the responsibilities of their practice. There seems to be no room for human error in obstetrics, which is perhaps an outcome of our legal system.

To be sure, CPMs indicated feeling extraordinarily vested in the wellbeing of their clients as well. But because a fundamental feature of their care was to empower women to make their own decisions, they tended to view negative outcomes not as a direct product of their care, but rather, to borrow Dr. Hamilton’s term, “mal occurrence”. The difference in the locus of decision-making in CPM care was demonstrated by how differently they thought about malpractice lawsuits. Essentially, they didn’t. The only CPMs who indicated that the risks of malpractice suits influenced their practice in any way were Emily and Jade, and both said it affected their practices in very limited ways. Emily told me that it influenced which clients she accepted; Jade told me it influenced how she wrote her personal protocols. But the overarching perception amongst CPMs, including Emily and Jade, regarding burden

of blame was that: (1) the relationships they built with their clients protected them from malpractice suits and (2) their lack of malpractice insurance meant that no attorney was likely to bring a case against them since, as Marissa said, “they’re not going to be able to benefit financially from suing me” (p. 125).

The final question I posed at the beginning of Chapter 4 was, *who determines which risk-taking behaviors are acceptable and which are reckless?* My results suggest that this question can be answered in two ways: from within the confines of CPM and OB practice or from within the broader context of maternity care in the United States. Looking within the confines of how each participant perceived which risk-taking behaviors were acceptable, my findings suggest much more variability than I had anticipated. Particularly amongst OBs, I was surprised by the flexibility in what they found acceptable. The variations in comfort level are most clearly illuminated in the comparison I made between Dr. Thompson and Dr. Lynn’s comfort with delivering babies in non-lithotomy positions (p. 116-117). The differences in comfort levels stretched the full spectrum –from feeling “awkward” and “uncomfortable,” to feeling completely capable of accommodating such deliveries.

This variability reveals what I feel is a very important trend in my findings: while of course, a number of standard conventions regarding how OBs and CPMs practice can be ascertained persuasively by looking at each group collectively, important diversity exists *within* each group that acts to bring these two models of maternity care that are typically viewed as divergent closer together. My findings did not unconditionally support a dichotomization between the midwifery and obstetrical models of care. To be sure, many significant differences between obstetric and midwifery practice do exist: OBs’ perception of risk more closely focuses on certain risks inherent in pregnancy and parturition and movement away from the hospital; CPMs’ perceptions concentrated on iatrogenic risks and

how experienced the practitioner was. These are not minor disparities –they inform why the current divided system of maternity care still largely exists in the United States, and especially in Missouri.

But my findings suggest that the focus on only the dividing factors between midwifery and medical care may not be the most appropriate approach to understanding maternity care in the United States. Almost as much variation existed *between* practitioners in the same group as existed *across* groups. OBs frequently appreciated the benefits of non-interventional maternity care and the need within the medical system to create mechanisms that better support the whole woman through labor. They repeatedly expressed frustration with the constraints that *the system* (Kennedy 2006:15) puts on OBs as maternity care practitioners (p. 71) and often voiced interest in developing a more integrated system of maternity care.

While to say that the CPMs I interviewed were eager to integrate into mainstream maternity care would be a distortion, their interest in improving the degree and quality of communication between the midwifery and medical models of care was pervasive. They each recognized the limits of their practice and suggested, often explicitly, that a more collaborative model would be both a benefit to the women they serve and a more cost-effective solution to maternity care.

CPMs and OBs alike occasionally voiced reluctance in such a collaborative system. And rightly so: it would require OBs to relinquish, as Dr. Bowers aptly noted, “the fun, easy, bread-and-butter deliveries” (p. 125) and instead refocus the scope of their professional practice on managing pathological pregnancies. It would require CPMs, to open their practices to more women and accept some of the limitations that institutional oversight creates. It would probably require a significant portion of CPMs to practice within

institutional settings –be it in low-risk maternity wings or birthing centers (although I have come to agree with the midwifery community that the option to birth outside of an institutional setting is a personal right, and will have to remain an option for women if midwives are ever going to agree to future collaboration). It would require major changes in how midwives and OBs are reimbursed for their services. It would require better wide-scale national data regarding the safety and cost-effectiveness of different models of maternity care. It would require a complete overhaul in how families seek monetary retribution for negative outcomes in birth. It would require significant tort reform. It would require a change in the social status of midwives, the cultural acceptability of non-medicalized healthcare, and importantly, a change in state legislative perceptions of what level of training is necessary to provide safe and effective maternity care.

Is this a realistic goal for America? It does not seem very likely. While the trend in much of Europe, notably in Britain's National Health Service (NHS), has been towards utilizing both community and hospital-based midwives as primary care practitioners for women with low-risk pregnancies, the peculiarities of the United States' culture of healthcare, with such a high value placed on medical technology, autonomy, control, and litigious retaliation (not to mention, privatized health care) make developing a integrated system of maternity care a particularly overwhelming objective. Perhaps one of the greatest differences between the United States and many of our European counterparts is the capitalist model of healthcare that exists in the United States in which individual practitioners must practice in the same capitalist economic model as all other small business entrepreneurs.

However, as the history of maternity care in the United States has proved time and time again, major shifts in standards of care are feasible, especially when the push for change

originates amongst consumers. Developing, if not a fully integrated model, at least a more fluid one, is a worthy pursuit for increasing access to more comprehensive forms of maternity care, decreasing costs, and limiting the frequency of complications from interventions. However, any move towards that sort of system will require multi-level and multidisciplinary cooperation and, most importantly, education and economic reform. To turn back to Mencken's quote that I included at the beginning of this paper, the solution to maternity care in the United States will be neither neat nor simple, but with increased consumer and practitioner education on different models of maternity care, we can start working towards a more collaborative future.

Implications

The Future of Maternity Care in Missouri

The changes in maternity care throughout the United States' history have had a notably cyclical pattern. Perceptions of birth have swung back and forth between being viewed as normal physiology and medically manageable pathology. While Missouri is certainly not the most progressive state, the national pendulum seems to be swinging in the direction of viewing birth as physiologically normal. Missouri's OBs, at least in this study, have shown considerable acknowledgement of the importance of normalizing birth. Missouri's CPMs have made significant strides in gaining acceptability –both amongst consumers and legislatures.

One of the trends within my data that was made clear based on the personal experiences each group of practitioners cited, was that they were most used to interactions (or often, as was the case with OBs, non-interactions) with the alternative profession only in emergency situations. If an environment can be fostered where midwives, their clients, and

hospitals don't see transfers to the hospital as *failed* home births, but rather a fluid continuation of maternity care, the quality of that care, as well as the relationships between the two groups of practitioners will undoubtedly improve.

In fact, it seems that legalizing CPMs has already profoundly improved the quality of care they are capable of providing women (at least from their perspective). They are beginning to build relationships with hospitals so that transfers occur smoothly and safely, before serious complications arise. As a number of CPMs I interviewed indicated, an important aspect behind the safety of their care is transferring a woman to a hospital if an indication of *potential* risk presents, so that they are in the appropriate environment to manage a complication should it arise. Based on CPMs' responses, hospital practitioners seem to be accepting home birth transfers with less hostility than in the past. It seems that if the current trajectory continues, relationships will improve. The more often midwives and OBs are able to interact in non-emergency situations, the more realistic their impressions will become for how the other group operates. Because ultimately, what both groups have devoted their professional lives to are the same: to help women safely delivery healthy babies in as trauma-free a way as possible.

That being said, the future of CPMs in Missouri is precarious. The legislation being considered this term in Jefferson City has the potential to either solidify CPMs' position in Missouri as acceptable maternity care practitioners or reverse much of the progress that has been made since 2008. Especially in a state like Missouri, where midwifery care is often the preferred option for women, ensuring that CPMs remain legal and can be held responsible for the care they provide is essential.

The trend in Missouri should be towards increasing the visibility of midwives, ensuring that they practice responsibly, and working towards a model that emphasizes

continuity-of-care between hospital and out-of-hospital birth. In order to ensure that this trend continues, the State will need to affirm the important role that CPMs play in Missouri's healthcare system.

Areas for Further Research

Through every phase of my exploration of risk perception I have found myself being lured by the many divergent areas of research that seem to somehow intertwine themselves with birth, maternity care, and risk perception; the subject is truly interdisciplinary. It has been a genuine struggle to sort through the incredibly vast body of literature and carve out a focused area of study. Even as I conducted my own qualitative research, I found myself having to continually narrow my focus –there is just an incredible amount to be said about risk perception in maternity care. However, there are a few gaps in the literature that I encountered that are important areas for further research.

The primary area I see for further research is regarding the other end of risk perception: what actually happens regarding the future care of a woman or child who has a negative outcome as the result of home birth attended by a midwife without malpractice insurance. Unfortunately, because I only realized how central this issue was to discussions of risk perception after conducting my research, I was unable to discuss this aspect of risk in maternity care. Can a woman seek financial reparations if outcomes are negative if her practitioner does not have insurance? If so, how? What process does a woman need to go through to insure that she has the proper financial compensation to take care of say, a newborn with a debilitating neurological impairment? Are midwives held to the same level of accountability as OBs are if they do not have insurance? What if the outcome was not the result of professional negligence but just (to borrow Dr. Hamilton's term) mal-occurrence?

From my research, it seems that malpractice insurance provides women a route (albeit not a particularly good one) for a woman to go about seeking the financial resources she needs to care for a seriously impaired child, even if the impairment was not the result of anything an OB did wrong. I would be interested in seeing more research on whether home birth women have any similar routes to obtaining financial resources. Perhaps cross-cultural comparisons could provide a model in this regard not only for the home birth community, but also for restructuring the ways that women and their families go about seeking reparation in the realm of medical healthcare.

There is also a need for more research concerning how practitioners' perceptions compare to how they actually practice. The limitation of a study on risk perception that relies only on qualitative interviewing, as this study has, is that it is removed from the reality of how practitioners actually practice. Particularly in maternity care, I would hypothesize that midwives and physicians alike often don't exactly practice what they preach –it is one thing to have a conversation with a college Anthropology student regarding conjectural details of obstetric or midwifery practice, it is something very different to watch first-hand as a midwife, for example, handles an emergency transfer to a hospital, or as an OB/GYN makes the call that an emergency cesarean section is needed. My own understanding of practitioners' risk perception has all been second-hand. It would be beneficial for research to compare how practitioners talk about risk to how they actually react to risk.

APPENDIX A. INTERVIEW GUIDE

1. Can you describe for me what the last delivery you attended was like? When were you contacted? What was your role during early labor? Active labor? After delivery? Would you describe this a “typical” birth in your practice?
2. Do you think there is a particular setting that is best for giving birth? [Prompt: If so, what setting? Why? Who should be the primary care giver?]
3. In your opinion, is it a reasonable decision for a woman to decide to give birth outside of a hospital? [Prompt: If so, where is it appropriate for her to give birth? Who should be the primary care giver?]
4. Do you feel there is anything routinely problematic about the way births are carried out in hospitals/ home? Do you think anything is wrong with the medical approach/ homebirth approach? Do you think any interventions are over- or under used?
5. Why do you think some women might prefer a homebirth to a hospital birth?
(*And visa versa*)
6. *CPMs Only*: Have you ever had to transfer a client to a hospital because of a childbirth complication? How often does this happen? Did you accompany the client to the hospital? How were you received by the medical staff?
7. Would you distinguish what you do from what a Certified Nurse-Midwife or a Certified Professional Midwife does? In what way? (*Change accordingly for each group*)
8. What constitutes abnormal labor? How often does abnormal labor occur in your practice? How often does abnormal labor occur in the United States?
9. Are women giving birth at home at higher risk for an adverse obstetrical outcome than a woman giving birth in a hospital?
10. What makes homebirth/hospital birth safe/unsafe? What criteria would you use to judge whether or not a birth is safe or unsafe?
11. Does the possibility of medical malpractice influence the way you practice? Is it something you personally worry about? If there were no risk of malpractice, is there anything you can envision changing about your routine management of birth?

12. *CPMs Only*: As someone doing home births, do you worry about being sued for medical malpractice? Do you have malpractice insurance? Have you ever tried to get it?
13. Do you think that home birth professionals and medical professionals share different burdens of blame when it comes to accountability?
14. What can be done to decrease the risk of malpractice suits?

APPENDIX B. OBSTETRIC RISK FACTORS FOR HIGH-RISK PREGNANCY

<u>Pregnancy Risk Assessment for High-Risk Pregnancy</u>			
Abridged and adapted from Hobel et al. 1973			
OB History Risk Factors	Points	Physical Risk Factors	Points
Previous stillbirth	10	Incompetent cervix	10
Previous neonatal death	10	Uterine malformations	10
Previous premature infant	10	Maternal age ≥ 35	5
Post-term > 42 weeks	10	Maternal age ≤ 15	5
Fetal blood transfusion for hemolytic disease	10	Maternal weight < 100 lbs.	5
Repeated miscarriages	5	Maternal weight > 200 lbs.	5
Previous infant > 10 pounds	5	Small pelvis	5
Six or more completed pregnancies	5	Pregnancy-Dependent Risk Factors	Points
History of eclampsia	5	Abnormal fetal position	10
Previous C-section	5	Moderate to severe preeclampsia	10
History of preeclampsia	1	Multiple pregnancy	10
History of fetus with anomalies	1	Placenta abruption	10
Medical History Risk Factors	Points	Placenta previa	10
Abnormal PAP test		Polyhydramnios or oligohydramnios	10
Chronic hypertension	10	Excessive use of drugs/ alcohol	5
Heart disease NYHA Class II-VI	10	Gestational diabetes (A1)	5
Insulin dependent diabetes	10	Kidney infection	5
Moderate to severe renal disease	10	Mild preeclampsia	5
Previous endocrine ablation	10	Rh sensitization only	5
Sickle cell disease	10	Severe anemia	5
Epilepsy	5	Severe flu syndrome or viral disease	5
Heart disease NYHA Class 1	5	Vaginal spotting	5
History of TB or PPD ≥ 10 mm	5	Bladder infection	1
Positive serology for syphilis	5	Emotional problems	1
Pulmonary disease	5	Mild anemia	1
Thyroid disease	5	Moderate alcohol use	1
Family history of diabetes	1	Smoking ≥ 1 pack per day	1

APPENDIX C. DATA ANALYSIS

Perceived Risks in Childbirth																	
Theme	Sub-Theme	Code	MW1	MW2	MW3	MW4	MW5	MW6	MW7	OB1	OB2	OB3	OB4	OB5	OB6	OB7	
Risks Introduced By Provider	Relationship with Woman	Provider's Appearance		✓													
		Interview with ♀				✓		✓									
	Intervention Decisions	Cervadil							✓								
		Cervical Exams (Don't Do to Decrease)			✓				✓							✓	
		CPM Suturing												✓			✓
		Cytotec						✓									
	Care Provided	Labor on a Schedule/ Time Limits		✓				✓	✓	✓							
		CPM Not Recognizing when To Transfer			✓	✓		✓	✓							✓	✓
		No Continuity of Care														✓	✓
		Practicing Defensive Medicine		✓	✓					✓	✓	✓					
		Provider Doesn't Know ♀ in Transfer								✓	✓	✓			✓		
Risks Introduced By Place	Location	Distance from Hospital		✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
	Interventions At Hospital	Chorioamnionitis														✓	✓
		Continuous EFM	✓	✓	✓					✓					✓	✓	✓
		Epidural			✓					✓	✓						
		Forceps			✓					✓							
		Induction	✓					✓	✓	✓							
		Pitocin (during labor)			✓	✓		✓	✓	✓							
	Distance Delays Emergency Intervention	Unfamiliar Location for Delivery					✓		✓								
		Amniotic Embolism			✓				✓		✓					✓	✓
		Cesarean Section (Emergency need)			✓				✓		✓				✓	✓	✓
		Cord Prolapse			✓	✓	✓		✓						✓	✓	
		Illegal Transfers							✓								
		Intrauterine Hypoxia	✓					✓		✓						✓	✓
No IV Access (Ilep Lock)												✓	✓		✓		
Placental Abruption				✓	✓												
Shoulder Dystocia	✓	✓					✓	✓	✓	✓	✓	✓	✓				
Risks Introduced Through Pregnancy/ Parturition	Pregnancy-Specific	Group B Strep								✓						✓	
		Gestational Hypertension														✓	
		Large Fetus								✓		✓		✓		✓	✓
		Breech	✓	✓	✓						✓		✓			✓	✓
		Occiput Posterior (OP)														✓	✓
		Placenta Previa			✓												✓
	During Labor (Process)	Multiple Birth			✓												✓
		Amniotic Embolism			✓				✓		✓						✓
		AROM					✓	✓	✓	✓			✓				✓
		Arrest of Descent												✓			✓
		Arrest of Dilation							✓					✓			✓
		Cord Prolapse		✓	✓	✓	✓			✓							✓
		Fetus Not "Tolerating" Labor/NRFS													✓		✓
		Intrauterine Hypoxia	✓						✓	✓						✓	✓
		Placental Abruption			✓	✓											
		Placental Insufficiencies During Labor										✓		✓			
		Pre-Term Delivery			✓												
		Shoulder Dystocia	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	
		Stalled Progress in Labor/ Prolonged				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
	Unusual/ Decels in Fetal Heart Rate	✓	✓	✓				✓		✓						✓	
	Uterine Rupture														✓	✓	
	During Labor (Parturient)	♀ Eating/ Drinking During Active Labor												✓			
		♀ Exhaustion	✓	✓			✓	✓	✓	✓							
		♀ Not Eating/ Drinking	✓				✓	✓	✓	✓							
		♀ Thinks Something is Wrong	✓			✓	✓	✓	✓	✓							
		♀'s Ignorance/ Lack of Knowledge	✓	✓	✓		✓	✓	✓	✓		✓				✓	
		Emotional Suffering/ Distress	✓	✓	✓				✓	✓							✓
Acutely After Delivery	Cesarean Section (Complication of)				✓			✓	✓		✓						
	Infection/ Sepsis	✓		✓				✓	✓		✓						
	Postpartum Hemorrhage	✓	✓	✓	✓	✓	✓	✓		✓	✓					✓	
	Retained Placenta	✓														✓	
General	Speed in at Which Complications Present									✓	✓	✓	✓	✓	✓	✓	
	The <i>No-Zero Risk</i> Factor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Unpredictability/ Speed of Complications	✓					✓		✓	✓	✓	✓	✓	✓	✓	✓	
Risks Introduced By Pregnant Woman	Pre-Existing (Pregnancy Non-Specific)	Bleeding Disorder		✓				✓								✓	
		Chronic Hypertension															✓
		Heart Disease			✓												
		Nulliparas	✓	✓	✓			✓	✓				✓	✓			✓
		Pre-Existing Diabetes							✓								
		Previous Myomectomy												✓			
	Uterine Fibroids												✓				
Lifestyle Choices	NBAC		✓					✓						✓			
	Lack of Exercise							✓	✓								
	Improper Diet				✓			✓	✓								
	Overweight				✓											✓	
Uncategorizable	Family's Risk Perception		✓					✓									
	Estimated % of Abnormal Labors		6%	10%	13%	5%	15%	N/A	5%	25%	40%	15%	N/A	25%	20%	25%	

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