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A MOTHER'S PARADOX: CHOOSING A BIRTHING METHOD IN THE 21ST CENTURY

by

Jenae Franklin

A THESIS SUBMITTED TO PITZER COLLEGE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE HUMAN BIOLOGY MAJOR

CLAREMONT, CALIFORNIA

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The undersigned certify that they have read, and recommend for acceptance, a thesis entitled "A Mother's Paradox: Choosing a Birthing Method in the 21st Century" submitted by Jenae Franklin in partial fulfillment of the requirements for the Human Biology Major

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Abstract

Investigating childbirth, one of the biggest moments of a woman's life, this thesis examines the reasons behind women's preferred birthing methods. This research explores the fundamental decisions women make during the birthing process: the amount of prenatal care mothers will receive, the type of health care provider they will use, picking the place of delivery, views on technological and medical interventions, and outlooks on natural childbirth. In addition to an extensive literature review, in-depth interviews with mothers, midwives, and obstetricians are used to examine the various controversies of childbirth. This thesis begins with a review of the transition from midwives to physicians as customary birth attendants in the United States and offers a comparison to obstetric care in Europe. Then comparing the training of obstetricians and midwives and their birthing philosophies to examine the medical and holistic models of childbirth. Finally, first-hand experiences of mothers conclude the research conducted and offer insight on the controversies of childbirth in an age of medical and technological interventions.

This research concludes that the transitions in American history have led to the cultural norm of medicalized, hospital births attended by physicians. These societal customs have led to great ambivalence towards alternative methods of childbirth such as not using the medical and technological resources available or using a midwife. With this, there has been a paradox created between the institutional pressures of childbirth and an individual's choice when deciding what will be involved in a woman's childbirth experience.

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Introduction

As a Human Biology undergraduate student I do not have any first-hand experience with childbirth, but I have a passion for learning about the human experience, medicine, health care, and the way the body works. My curiosity is where my interest in childbirth begun. My interests in health care steered me to an internship position at the Foundation of Health Care Quality, a nationally recognized non-profit organization working to reduce variations in outcomes and improving the quality of care for patients in the state of Washington. The division I was placed in was the Obstetrics Clinical Outcomes Assessment Program (OBCOAP). OBCOAP uses provider-specific, chart-abstracted data about the care given to women during labor, delivery and the postpartum period as the basis for analysis and discussion. Outcomes for newborns as well as moms are also part of the discussion. These data are analyzed to evaluate labor management practices and interventions commonly used in labor and delivery and compare implications of care decisions, allowing for opportunities to explore methods for actionable and sustainable improvements. My experience at OBCOAP led me to explore the decisions that mothers make during the childbirth process. Is it possible that outcomes could be improved from the very beginning, starting with the decisions women make throughout the birthing process? By investigating women's reasons for their decisions during the childbirth process¹, as well as obstetricians' and midwives' philosophies, I believe obstetric outcomes can change. The first step is to ask why.

¹ For the purposes of this thesis, the childbirth process refers to actions taken in prenatal care, throughout a pregnancy, during labor and delivery, and postpartum care.

Why is this research important?

In comparison to European countries that have the same technological advances introduced at relatively the same period in time as the Untied States, the outlook on childbirth varies immensely. While American society employs the medical model of childbirth, most European countries, like the Netherlands, promote the midwifery model. In 2012, doctors of medicine attended 86.1 percent of all hospital births in the United States, while certified nurse-midwives attended 7.6 percent of all hospital births. Out of hospital deliveries represented 1.4 percent of all births in 2012 (Martin et al. 2012). While midwives deliver about 8 percent of babies in the United States, they attend up to 75 percent of births in European countries (Keefe 2013: 1). The resulting effect of the variation in birthing methods between the United States and Europeans nations is illustrated in the obstetric outcomes of each nation, with the United States falling towards the bottom.

The United States has one of highest infant mortality rates among industrialized countries. Today the U.S infant mortality rate is 6.17 infant deaths per 1,000 live births, compared with the Netherlands, which has an infant mortality rate of 3.66 per 1,000 live births (CIA 2014). It is important to note the socioeconomic and demographic differences between the U.S and the Netherlands as they each contribute immensely to infant mortality. The ethnic and racial disparities in the U.S are the largest factors contributing to infant mortality rate. With infant mortality rate (infant deaths per 1,000 live births) ranging from 12.4 for non-Hispanic Black women to 5.33 for non-Hispanic White women, 5.29 for Hispanic women and 4.4 for Asian or Pacific Islander women (Mathews 2012:1). These disparities suggest that not all racial and ethnic groups benefit equally from social and medical advances in the U.S. The Netherlands on the other hand has less racial diversity with 78.8 percent of the population being Ethnic

Dutch, resulting in ethnic disparities to be a smaller contributing factor to infant mortality (CIA 2014). In addition, income inequality has a significant impact on various health issues as those with higher incomes have better access to health services, higher life expectancy and lower infant mortality rates. The U.S has a significant income gap across the nation whereas the Netherlands is not as nearly close in comparison. Looking at the income quintiles of 2010 by racial distribution, White Americans made up 87.93 percent of all households in the top 5 percent, while only 4.75 percent of all households identifying as Hispanic or Latino and 4.17 percent of all household identifying as African Americans made up the top 5 percent. Overall, households headed by Hispanics and African Americans were underrepresented in the top two quintiles and overrepresented in the bottom two quintiles. 86.01 percent of all households in the top two quintiles with upper-middle range incomes of over \$55,331 were of households who identified as White alone, while only 7.21 percent of households were being headed by someone who identified as being Hispanic and 7.37 percent by someone who identified as being African American. Looking at the overall distribution of White Americans, White households are underrepresented in the lowest quintile and slightly overrepresented in the top quintile and top 5 percent (Census Bureau 2011). In comparison, the Netherlands has the 5th lowest income inequality of all European nations. On a scale of 0 to 1 where 0 represents total income equality and 1 represents total inequality (one person earns all the income), income inequality in the Netherlands was 0.27 as of 2011 (Blair 2012: 2). The significant difference in ethnic diversity and socioeconomic distribution between the U.S and the Netherlands has a substantial impact on the infant mortality rates of both countries. I will address this issue further in the conclusion of this thesis as it plays a greater role in the expansion of midwives and the changing approach to childbirth.

In addition to infant mortality, cesarean section rate is another indicator of the necessary changes to the approach to childbirth that the U.S must take. In 2012, the U.S cesarean delivery rate was 32.8 percent of all births, while the Netherlands hold a cesarean rate of 14.3 percent (OECD 2013:1). Looking at the varying obstetric outcomes between these two countries that are similar in their wealth and technological advances, the most significant differences are the health care systems and the cultural outlook on childbirth. First, the Netherlands differs from the U.S in that it has a dual health care system in which all primary care is covered by required private insurance, including family doctors, general practitioners, obstetricians, hospital and clinical services, and postnatal care. The supplementary plan of this insurance covers the costs of midwives in hospitals, birthing centers, and private residences. Health insurance plans in the U.S generally do not cover midwives and women tend to pay most of the expenses of hospital births out of pocket. The health care system coupled with the methods employed by society is what is affecting the U.S the most. If society accepted and implemented the midwifery model then the infant mortality and cesarean rates of the U.S could begin to look more similar to that of the Netherlands. One of the first steps in changing society's perspective of childbirth is to investigate why women are choosing the birthing methods they prefer, examining both the cultural and medical background of their decisions.

Methodology, Ethics, Limitations

In order to investigate the reasons behind the variation in birthing methods, I conducted both qualitative and quantitative research. In addition to an extensive literature review on all topics covered, national data on obstetric characteristics were first collected from the Centers for Disease Control and Prevention annual National Vital Statistics reports. Statistical data included the recent number of cesarean births, vaginal births in hospitals and in homes, the percentage of births attended by physicians and midwives, and trends over time. The national statistics are used to broaden the demographic scope represented by the small sample of the population interviewed in this particular research. In addition to the National Vital Statistics reports, comparisons to the study, *Listening to Mothers Surveys and Reports*, are made. Women are the key contributors to the childbearing practice yet there is little research on their experiences and reasons for using different delivery methods. One organization that has taken on the role of understanding mothers' perspectives is Childbirth Connection. Childbirth Connection has completed a study called Listening to Mothers Surveys and Reports. The focus of Listening to Mothers is to understand the views of mothers on maternity issues. The pilot program of *Listening to Mothers*, run in 2003, was the first time that women in the Untied States were polled on a national level about the maternity experience (Declercq, et al, 2013: 7). They have performed two more surveys since 2003, one in 2008 and the most recently in May 2013. The latest version of *Listening to Mothers* included 2400 surveys completed online from participants ages 18-45 years old, who had given birth to single babies in a U.S hospital (Declercq, et al, 2013: 11). This thesis adds to the collection of information on the direct experience of new and expectant mothers during maternity.

In order to gather ethnographic information on this topic, I conducted interviews with mothers, obstetrician-gynecologists (OBGYN), certified nurse-midwives (CNM), and certified professional midwives (CPM). Childbirth and the decision-making process during this experience are sensitive and personal topics that can put individuals in a vulnerable state. For this reason, anonymity of all participants is maintained throughout this thesis. All mothers, physicians, and midwives have been given alias names and were informed before agreeing to participate in an interview that any content used would not cite their name. OBGYNs are interviewed to further explore the medical and cultural reasoning of the different birthing methods employed in the United States. One OBGYN, David, was interviewed. David is a male who works in a small, private hospital in Seattle, Washington. Three midwives were interviewed to compare the two childbirth models and understand their perspectives on the variation in birthing methods. The first is a CNM, Claire, practicing and teaching at George Washington University Hospital in Washington, D.C. The second midwife interviewed is a CPM, Rebecca, who attends homebirths in the surrounding areas of Claremont, California. The last midwife interviewed is also a CPM, Mary, who attends homebirths and works out of a small, private office in Claremont, California.

In addition, five mothers from both Claremont and Seattle have been interviewed to explore the motives behind their decision-making process during childbirth. All mothers interviewed are from similar socioeconomic classes yet varying in educational and occupational backgrounds. The first mother interviewed is Anna, a 29 year-old real estate agent who just recently gave birth to her first child. The second mother is Melanie, a 28 year-old small business owner who just recently gave birth to her second child. A college economics professor, pregnant for her second time is the third mother interviewed, 39 year-old Lily. The next mother is another college professor who teaches political studies and is pregnant for her second time, 35 year-old Michelle. The last mother interviewed is a college art professor, 37 year-old Marie, who is pregnant with her first child. Furthermore, an interview with the program director of OBCOAP was interviewed to gain an alternative health care perspective on this topic. The director, Kristin Sitcov, does not take on an alias name as her professional status in the obstetric field would not allow for anonymity to be maintained. Sitcov gave her consent for her real name and direct quotes to be used throughout this research.

Before interviewing the participants for this research, the ethical issues of this topic were carefully reviewed. The first issue is to maintain confidentiality of all participants, for this reason alias names are given to the participating OBGYN, midwives, and mothers. This excludes OBCOAP program director Kristin Sitcov. In addition to confidentiality, one ethical issue thought of beforehand was to inform all participants that they had the option of skipping any questions they were uncomfortable discussing or stopping the interview altogether. I never had to stop an interview, however some participants did ask to skip a question they felt was too personal to answer; the questions skipped varied among participants. The final ethical matter encountered during this research, is that conducting interviews with medical professionals poses the risk of intruding on doctor-patient confidentially; this is why all participants have remained anonymous.

There were a few limitations to this project, however, none that were detrimental to the outcomes of the research. The most significant limitation was the small network of participants that were polled for interviews. Finding OBGYNs to participant in this research was the most difficult and greatest limiting factor. There is only one OBGYN interviewed due to various cancelled interviews and restricted networking. The same issue arose while connecting midwives but not to the same extent. In addition, finding new and pregnant mothers within the area was a difficult task due to the limited resources available for contacting pregnant women. Although there were enough participants interviewed to collect the information needed to complete this thesis, the number of participants and demographics are very narrow. Ideally, this thesis would have included more interviews and participants from all ethnic, socioeconomic and educational

backgrounds. An additional limitation was the small amount of recent literature published on this topic. While there are countless resources on the natural birth process, cesareans, obstetricians and midwives in the United States, the majority of these works are outdated.

Theoretical Framework

The general public may not know the meaning of particular medical and theoretical terms used throughout this thesis, for this reason I outline the terms and definitions here. Terminology-

Obstetrics: As defined by the American Board of Obstetrics and Gynecology, the field of obstetrics is the medical care of women before, during, and following the birth of their child (ACOG 2013:1).

The Medical/Technocratic Childbirth Model: This approach to childbirth focuses on preventing, diagnosing, and treating the complications that can occur during pregnancy, labor, and birth. Prevention strategies tend to emphasize the use of testing, coupled with the use of medical or surgical interventions to avert a poor outcome.

The Holistic/Midwifery Childbirth Model: According to the Midwives Alliance of North America (MANA), the midwifery model of care includes "monitoring the physical, psychological and social well-being of the mother throughout the childbearing cycle while minimizing technological interventions" (MANA 2014:7). In practice, midwives manage deliveries by patiently waiting for nature to do the work (Radosh 1986: 131).

Natural Childbirth: There are varying definitions of a natural childbirth. For the purpose of this research I have chosen to use the definition provided by Grantly Dick-Read, a British obstetrician who coined the term "Natural Childbirth." According to Dick-Read, "a natural

childbirth is one that includes unmediated and uninterfered with labor and birth; in which the major function of the birth attendant is to support the woman to relax and to have faith in the normal and natural outcome of childbirth" (Michaelson 1988: 162). In this thesis I will not be invoking a universal human experience for childbirth. "Natural" when used will not be referring to a pre-cultural or a cultural experience.

Cesarean Section (C-section): The delivery of a baby through surgical incisions made in the mother's abdomen and uterus (ACOG 2013:2).

Perinatal: The period immediately before and after birth from about three months before to one month after birth (ACOG 2013:2).

Theoretical Concepts-

There are two key theoretical concepts used throughout this thesis. The first is the metaphor of the woman's body as a machine. I found this to be a reoccurring metaphor when reviewing literature for background information on the topic. Emily Martin refers to this concept in her book, *The Woman in the Body: A Cultural Analysis of Reproduction*. Martin (2001: 54) states, "In obstetrics, the metaphor of the uterus as a machine combines with the use of actual mechanical devices, such as forceps, which played a part in the replacement of female midwives' hands by male hands using tools." Martin is referring to the period in history when male physicians first replaced female midwives in the role of delivering babies, at this time the first medical instruments, such as forceps, were used to assist doctors in the delivery. Metaphors such as the one touched on by Martin play a role in the way society view women during the birthing process, as well as illustrate the transition from traditional midwifery to modern day obstetrics. Paralleling this analysis, Robbie Davis-Floyd and Elizabeth Davis outline this metaphor in the article, *Intuition as Authoritative Knowledge in Midwifery and Homebirth*. Throughout the

history of Western obstetrics there has been a pattern of "technologies of separation" (Davis-Floyd and Davis 1996: 238). By this, the authors are alluding to the separation of the fetus and the mother through the use of diagnostic technologies, such as an ultrasound or fetal monitor. As Davis-Floyd and Davis note (1996: 238), the medicalization of pregnancy has brought with it the metaphorization of the female body as a defective machine and the working notion that birth will be "better" when this defective birthing machine is hooked up to other, more perfect diagnostic machines. Davis-Floyd and Davis introduce the concept of the medicalization of the birthing process through this metaphor, expressing the commonly held belief that with medical and technological advances, childbirth will be more successful and safer.

The second theoretical concept used throughout this thesis is the notion of hierarchical management employed during maternity. The hierarchical thinking implemented by the medical model of childbirth categorizes the roles of physicians, nurses, midwives, and patients during the decision-making process. Mander and Murphy-Lawless (2013: 37) describe these levels with the medical practitioner at the hierarchy's pinnacle, midwives at differing levels depending on experience, and the supposedly "compliant and passive" childbearing woman at the bottom. This hierarchical way of practice takes away a woman's autonomy during childbirth by placing her at the bottom, not allowing her decisions to hold value over that of a medical practitioner. The hierarchical thinking demonstrated in childbirth is one of the factors influencing the predominance of patriarchy seen in obstetric care.

Summaries of Chapters

The chapters to follow include an analysis of the variation in birthing methods through a collection of literary reviews, data analysis, and in-depth interviews from obstetricians-

gynecologists, midwives, and mothers. Chapter one reviews the history of obstetric care in the United States from the mid-eighteenth century to today. With the introduction of male physicians into the childbirth practice, medical institutions barred women from applying, pushing midwives out of the obstetric field. In addition to male physicians, the developments of medical instruments, such as forceps, to assist physicians with deliveries transitioned females to birthing in hospitals and utilizing pain relievers. By the turn of twentieth century the American public had become reliant on modern medicine, resulting in hospital births being the modern norm of childbirth. It was not until 1925 when the Frontier Nursing Service was established that nursemidwives became a publically accepted medical profession, helping to bring the midwifery model of care and midwives back into a positive light.

In addition to analyzing the effects of historical trends on obstetric care, chapter one also examines national birthing data today in order to understand how childbirth practices have transformed and where they are heading. Furthermore, there is a detailed comparison to childbirth methods employed in Europe to fully understand the effects of the obstetric practices implemented in the United States.

Chapter two employs literary reviews and ethnographic information to contrast the philosophies and perspectives of obstetrician-gynecologists and midwives. First comparing the training criteria of both fields, to better understand the similarities and differences in the methods employed by each. Then, by using information gathered from in-depth interviews, supplemented by literature reviews, the opinions on varying childbirth issues are investigated. These topics include a comparison of the medical and midwifery model of childbirth, the contribution of prenatal care to obstetric care, perspectives of medical and technological interventions on the birthing process, and finally an outlook of the future of the obstetric care.

Chapter three digs into the controversies of a mother's decision-making process during her childbirth experience through the use of ethnographic information, as well as literature reviews. Tackling the issues of the use of prenatal care, understanding how a woman chooses her health care provider, reviewing transitions in American culture, looking at technology's influence on the natural childbirth experience, and lastly, figuring out how a woman chooses the best birthing method for herself. Chapter three is also supplemented by national statistics and a comparison to the report by Childbirth Connection, *Listening to Mothers*.

Conclusion

The experience of mothers during childbirth is one that has yet to be explored in great detail. This thesis takes on the task of expressing this major life event from the perspective of those who are most involved—mothers, physicians, and midwives. Through in-depth interviews, literary reviews, and data analysis, this thesis investigates the medical and cultural reasons for the preferred childbirth methods used in the United States.

Chapter One: Contextualizing the Problem

Introduction

There have been dramatic changes in obstetric care from the eighteenth century, since males first stepped into the sphere of deliveries introducing anesthesia and forceps to the technological innovations used today, such as 3D fetal monitoring systems. Why has obstetric care changed so drastically in recent centuries? What role has historical shifts played on the trends in American birthing methods? To better understand the reasons behind preferred labor methods and the cultural influences in America, it is necessary to dig into the history of obstetric care. In this chapter, I review the transitions in obstetric care from traditional midwifery to modern gynecology in the United States. In addition, I provide birth data analyzing the key characteristics of obstetrics to illustrate the current situation of maternity care. Furthermore, I include a view on the future outlook of obstetric care, based on an interview with the program director of the Obstetrics Clinical Outcomes Program of Washington State. As a way of a conclusion, I offer a comparison to the birthing outlook of European nations, countries similar to the United States in wealth and technological advances, but far different in their use of medical interventions.

The History of Obstetric Care

The first midwives in the United States were European women who immigrated to colonies, bringing over their skills to the New World (Radosh 1986: 129). Female midwives performed the majority of deliveries of babies at this time; however, the rigid role expectations of women prevented the extension of the midwifery practice beyond simple deliveries. Until the mid-eighteenth century, childbirth had been an area of medicine traditionally controlled by

women. In 1720, however, the use of the term "man-midwife" suggested that men could now be involved in the delivery of live babies, rather than being called in only to remove one who had died or one that could not be delivered without killing it (King 2007: 66). William Smellie, one of the most famous men-midwives of this time, introduced the development of midwifery forceps, along with the description of the mechanisms of normal labor into midwifery practice (King 2007: 66). With Smellie's developments, and educational qualifications as a member of the Faculty of Physicians of Glasgow, he gave the midwifery practice a professional domain (King 2007: 67). The use of forceps in delivering a live child demonstrated that the presence of men in the birthing field was no longer a signal of death and therefore gave men a gateway into the practice.

In the years before 1750, doctors were scarce, making this the "age of the midwife." In 1762, Dr. William Shippen Jr., who had studied under Smellie, opened the first midwifery school for men and women in Philadelphia (Radosh 1986: 130). Shippen assumed that under proper instructions, midwives would be able to take care of the majority of cases while emergencies could be referred to qualified physicians. Three years later, the first medical school began taking students, however barring women from the program. By the 1780s, male physicians began replacing midwives among the more affluent communities as it was claimed by medical schools that only doctors could make childbirth safe. Initially, the male physicians were only called upon to assist with difficulties during deliveries as the attendance of men upon maternity cases was still held to be "most indelicate," but gradually physicians begun to take over standard childbirth as well (Radosh 1986: 131). As men increasingly replaced women in the midwifery field, childbirth became regarded as a medical problem managed by physicians. As males became more educated, and therefore physicians become more available, women were limited to the

practice of midwifery, which received much less educational and professional support (Radosh 1986:130).

The acceptance of men into obstetrics is surprising given the moral taboo of men's presence during childbirth at the time. However, men-midwives were willing to perform services which female midwives would not usually undertake, such as experimenting with a variety of instruments to promise the mother less pain and quicker deliveries (Radosh 1986: 131). Female midwives, on the other hand, virtually never interfered with the normal birth process. They managed deliveries by "patiently waiting for nature to do the work" (Radosh 1986: 132). When male physicians started to deliver babies, women transitioned from squatting on a midwife's stool or kneeling, to taking to the bed to labor and deliver. As Radosh (1986: 131) explains, "presumably, a woman in bed could be well covered and this would relieve some of the uneasiness caused by the fear of men and loss of modesty." The problem with the position of the women lying on her back to deliver was that she was unable to use the force of gravity to help with the delivery, thus prolonging labor.

Along with the introduction of men into the childbearing practice, came an increase in mortality rates, both maternal and infant. The most serious problem associated with the increased use of physicians was the employment of instruments during delivery, prior to the discovery of antiseptic (Radosh 1986: 132). Interference by physicians with instruments was extremely dangerous and frequently led to death of the mother from puerperal fever, blood poisoning. In the nineteenth century, puerperal fever was the greatest maternity problem and only became more complicated and widespread as midwives were less frequently employed (Radosh 1986: 132). Nevertheless, as physicians took control of both normal and emergency childbirths, interference with the birthing process became a regular occurrence. In 1847, physicians began to

use chloroform as the first pain-alleviating drug, as it anesthetized the woman during childbirth while allowing contractions to continue (Radosh 1986: 131). Since the late nineteenth century, the pain of childbirth has been increasingly managed medically by anesthesia and painkillers. In spite of the increased risks caused by physicians experimenting with more procedures while women were anesthetized, the use of midwives declined steadily by the late ninetieth century. By 1910, only fifty percent of all births were attended by midwives as anesthesia and painkillers were increasingly used to manage the pain of childbirth by physicians (Radosh 1986: 132). By the early twentieth century, childbirth was considered the preview of medicine and treated as "a pathological condition" (Michaelson 1988: 124).

At the turn of twentieth century, medical reform was aimed at eradicating the problems of the poor through public health programs, in hopes of improving social conditions throughout the nation. The midwife was symbolic of "dirty indigents who needed to be upgraded," and was targeted to be eliminated (Radosh 1986: 133). According to the common view of the medical profession, midwives could not be regulated or educated to provide the same care as physicians because this would cause competition and reinforce a double standard for medical care. During the first couple of decades of the twentieth century the debate over what should be done about midwifery was extensive. Public opinion on the matter, however, was clear: "hospitals were modern and scientific, while midwives were old-fashioned and dangerous" (Radosh 1986: 134). Despite the fact that midwives provided care equal to, if not superior to, that given by a medical professional, the modern American women employed obstetricians, not midwives. The American norm of physician-attended hospital births had been firmly established by 1930 (Radosh 1986: 136). This social boundary between midwives and physicians had been built around the idea that physicians were of higher class and embraced modern technology. The American public created

a reliance on modern medicine because of this, in addition to the fact that midwives were neither professionally recognized nor given the opportunity to receive medical training equivalent to that of physicians. This created a distrust in midwives, along with a fear of natural childbirth. Most women were attracted to hospitals because hospitals could offer painless birth that was not available in homebirths (Feldhusen 2000: 5).

Along with the influx of male practitioners, the improvements of regulations on maternity care, and the increase in medical interventions, came the advances in medical technology of the twentieth century. According to Gregg (1986: 2), "pregnancy in the late twentieth century was pregnancy in a high-tech age." During this time, pregnant women in the United States experienced more medical innovations and procreative interventions than ever before. By the late twentieth century, "fertility testing, techniques of 'assisted conception', tests to confirm pregnancy, prenatal screening and diagnosis, fetal monitoring induced labor, and cesarean sections had become normal, if not expected, components of contemporary childbearing" (Gregg 1995: 2). Pregnancy had been redefined as a process requiring medical and technological intervention through the availability of technological advances and a high supply of practitioners willing to use them. For the vast majority of obstetricians at this time, technology and birth become inseparable. Early on obstetrics adopted the model of the assembly-line production of goods, with the advances in technology being no exception to this model. As Davis Floyd (1995: 55) illustrates, "in the hospital a woman's reproductive tract is treated like a birthing machine by skilled technicians working under semi-flexible timetable to meet production and quality control demands." This metaphor of the body as a machine has continued throughout maternity treatment into modern day obstetrics. The growth of medical advances and physicians as birth

attendants who are advocates of medicalized childbirth has had a large affect in shaping society's perception of what is deemed as normal birthing practices.

The Rise of The Nurse-Midwife

The twentieth century was defined in large part by the replacement of home deliveries by hospitals births and the significant decline in demand for midwives throughout most of the nation. However, in the early 1900s, there was one area of the country initiating a midwifery program. In 1925, Mary Breckenridge founded the Frontier Nursing Service (FNS) in Hyden, Kentucky. The FNS was a midwifery service where midwives traveled on horseback to the homes of women in labor (Radosh 1986: 137). The efforts of the FNS were unique in that the practitioners in the program were not only midwives, but they were also trained and certified public health nurses, certified nurse-midwives (CNMs). This established a new concept in maternity care, combining the practice of traditional midwifery with the modern scientific training of nurses. In 1931, the Maternity Center Association established the first school of nurse-midwifery in New York City (Radosh 1986: 137). In 1939, the FNS established its own graduate school for midwifery, which later became the first certificate program to prepare family nurse practitioners (FNP) (Hines 2013: 2). By 1958, the FNS nurse-midwives had attended over 10,000 births. All maternal and infant outcome statistics for the FNS's first thirty years of operation were better than that of the country as a whole. The biggest differences were in the maternal mortality rate (9.1 per 10,000 births for FNS, compared with 34 per 10,000 births for the United States as a whole) and low birth weight (3.8 percent for FNS, compared with 7.6 percent for the country) (Hines 2013: 2). In 1970, the name of the School was changed to the Frontier School of Midwifery and Family Nursing to reflect the addition of the FNP program and in 2011 the name changed to the Frontier Nursing University to reflect the graduate level Master's and Doctoral program offered.

The practices and education by the Frontier Nursing Service brought the profession of midwives back into a more positive light. As more nurse-midwifery programs became established throughout the country, the occupation took on professional importance in 1955 when the American College of Nurse-Midwives (ACNM) was created (Hines 2013: 2). By 1970, university affiliated training programs for nurse-midwives became more common through the ACNM, allowing there to be 26 established schools by this time (Radosh 1986: 137). With increased public demand for services provided by CNMs and the insufficient supply of obstetricians to meet these demands, a spur in the acceptance of CNMs as qualified maternity practitioners was generated.

According to the American Midwifery Certification Board, today there are 13,071 certified nurse-midwives and 84 certified midwives practicing throughout the United States (ACNM 2014). The number of nurse-midwives who are certified each year has increased by 25 percent since 1991. There are currently 50 accredited nurse-midwifery educations programs in the United States, most offering a Master's degree. Frontier Nursing University continues to offer programs today, offering Doctorate and Master's degrees in nursing and nurse-midwifery (Hines 2013: 3). Furthermore, nurse-midwifery practice is now legal in all 50 states and the District of Columbia. The initiation Frontier Nursing Service took in making nurse-midwifery a distinguished medical profession has made tremendous improvement for maternity care, without it nurse-midwifery would not have the professional recognition it does today.

Obstetric Care Today

Looking at where we are today in the twenty-first century, the United States is at a place where the latest technology is employed, the highest education is available to male and female obstetricians, and training institutions have been established for certified nurse-midwives and licensed midwives. To understand the magnitude of where maternity care has transitioned to today, it is helpful to look at the national statistics of births in the United States. For this purpose, I present an overview of national data on a variety of key birth characteristics, including method of delivery, place and attendant at birth, and maternal age.

The National Vital Statistics Reports presents detailed data on numbers and characteristics of births in the United States for 2012, including birth and fertility rates, maternal demographic and health characteristics, place and attendant at birth, and infant health characteristics. Data shown in this report are based on 100 percent of the birth certificates registered in all states and the District of Columbia; more than 99 percent of births occurring in the Untied States are registered. The total number of births includes births to women up to age 64 (Martin, et al, 2013: 3).

According to the National Vital Statistics Report, in 2012 the U.S cesarean delivery rate was unchanged from 2011 at 32.8 percent (Martin, et al, 2013: 2). The cesarean rate rose nearly 60 percent from 1996 to 2009, has since declined slightly from 2009 to 2010, and has been stable since (Table 1). Potential reasons for this significant increase may be related to the high correlation between the use of anesthesia and cesareans performed. When women choose to use anesthesia, such as an epidural, for pain relief during labor and delivery there is a much higher chance that a cesarean will have to be done. During this period, not only was there an increased use of anesthesia, but also, there was a high rate of elective cesareans. Elective cesarean deliveries are performed for non-medical reasons, including wanting to schedule the birth on a specific date, living far away from the hospital, sense of discomfort in the last weeks of pregnancy, and most commonly, a fear of vaginal birth (ACOG 2013: 181).

	Vag	ginal	Cesarean			
	Nun	Number		Rate		
Year	All Births	Total	Total	Total		
2012	3,952,841	2,650,744	1,296,070	32.8		
2011	3,953,590	2,651,428	1,293,267	32.8		
2010	3,999,386	2,680,947	1,309,182	32.8		
2009	4,130,665	2,764,285	1,353,572	32.9		
2008	4,247,694	2,864,343	1,369,273	32.3		
2007	4,316,233	2,933,056	1,367,340	31.8		
2006	4,265,555	2,929,590	1,321,054	31.1		
2005	4,138,349	2,873,918	1,248,815	30.3		
2004	4,112,052	2,903,341	1,190,210	29.1		
2003	4,089,950	2,949,853	1,119,388	27.5		
2002	4,021,726	1,687,144	1,043,846	26.1		
2001	4,025,933	1,746,551	978,411	24.4		
2000	4,058,814	1,804,550	923,911	22.9		
1999	3,959,417	1,810,682	862,068	22.0		
1998	3,941,553	1,842,420	825,870	21.2		
1997	3,880,894	1,829,213	799,033	20.8		
1996	3,891,494	1,851,024	797,119	20.7		
1995	3,899,589	1,867,024	806,722	20.8		
1994	3,952,767	1,896,609	830,517	21.2		
1993	4,000,240	1,903,433	861,987	21.8		
1992	4,065,014	1,916,414	888,622	22.3		
1991	4,110,907	1,941,726	905,077	22.6		
1990	4,110,563	1,972,754	914,096	22.7		
1989	3,798,734	1,806,753	826,955	22.8		

Table 1. Births, by method of delivery for all races, United States, 1989-2012 (Martin, et al, 2013: 75).

Prior to 2010, the cesarean delivery rate had increased every year since 1996 when about one fifth of births were delivered by cesarean (Martin, et al, 2013: 10). The American College of Obstetricians and Gynecologists has called for a reduction in the occurrence of non-medically indicated cesarean delivery and induction of labor prior to 39 weeks (Martin, et al, 2013: 11). Efforts to reduce such births include changes in hospital policy to disallow elective delivery prior

to 39 weeks. The rate of cesarean delivery for all U.S births delivered at less than 39 weeks peaked in 2009 at 38.3 percent and had declined every year since, reaching 37.5 percent in 2012. This slight decrease in elective cesarean reflects the progressive outlook of medical professionals toward providing a more mindful and less invasive birthing experience. An additional sign of this is the decline in recent years of the use of forceps and vacuum extraction to assist in deliveries (Table 2).

Table 2. Percent of live births delivered by forceps or vacuum extraction: 1990,1995, 2000, 2005 and 2008-2012 (Martin, et al, 2013: 41).

Year	Forceps	Vacuum extraction	Forceps or vacuum
2012	0.61	2.79	3.40
2011	0.65	2.85	3.50
2010	0.66	2.96	3.62
2009	0.67	3.04	3.71
2008	0.71	3.22	3.94
2005	0.93	3.87	4.80
2000	2.07	4.85	6.92
1995	3.48	5.90	9.38
1990	5.11	3.90	9.01

In 2012, forceps or vacuum extraction assisted only 3.40 percent of births, down from 3.50 percent in 2011. Compared to 1990 when forceps and vacuum extraction assisted 9.01 percent of births. There was a large influx in 1990 due to the introduction of the instruments, but in recent years there has been increased encouragement not to use such interventions.

The vast majority of births in the United States are delivered in hospitals. In 2012, 98.6 percent of all U.S births occurred in hospitals (Martin, et al, 2013: 10). Doctors of medicine (MD) attended 85.8 percent of all hospital births, certified nurse midwives (CNM) attended 7.6 percent, and doctors of osteopathy (DO) attended 6.0 percent (Table 3). Out of hospital deliveries represented 1.4 percent of births in 2012. Of the more than 50,000 out of hospital

births, about two-thirds (65.6 percent) occurred in a home, and 29 percent occurred in a birthing

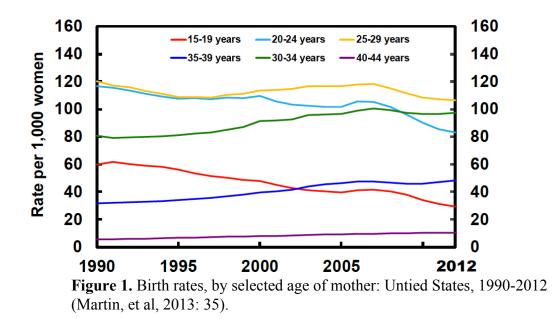
center (Table 3).

		Physician		Midwife			Other		
Place of delivery	All births	Total	MD	DO	Total	CNM	Other Midwife	Other	Unspecified
Total	3,952,841	3,582,768	3,347,334	235,434	342,189	313,846	28,343	25,777	2,107
In hospital	3,899,089	3,580,382	3,345,245	235,137	303,184	297,806	5,380	14,324	1,199
Not in hospital	53,635	2,352	2,058	294	38,997	16,040	22,957	11,425	861
Birthing center	15,577	458	346	112	14,571	7,988	6,583	502	46
Clinic or doctor's office	450	197	161	36	222	145	77	28	3
Residence	35,184	1,233	1,124	109	23,584	7,739	15,845	9,715	652
Other	2,424	464	427	37	620	168	452	1,180	160
Not Specified	117	34		3	8	2	6	28	47

Table 3. Births, by attendant and place of delivery for all races, United States, 2012 (Martin, et al, 2013: 74).

In 2012, CNMs attended 7.6 percent of all hospital births, the same as 2011, but a 6 percent increase from 2005. The percentage of out-of-hospital births attended by CNMs also increased 6 percent over this period, from 28.6 percent in 2005, to 30.4 percent in 2012 (Martin, et al, 2013: 10). This may be due to the increase in established midwifery schools over this time. Additionally, there has been increasing support of non-interventional methods of childbirth during this time, including the use of nurse-midwives and embracing the midwifery birthing philosophy.

The average age of the mother at first birth rose to 25.8 years in 2012, up from 25.6 years in 2011 (Martin, et al, 2013: 2). The teenage birth rate was 29.4 births per 1,000 women aged 15-19 in 2012, an historic low for the nation (Figure 1). In 2012, the birth rate for women aged 20-



24 in 2012 was 83.1 births per 1,000 women in this age group, a new record low for the U.S (Figure 1).

The birth rate for women aged 25-29 was 106.5 births per 1,000 women (Martin, et al, 2013: 5). The birth rate for women aged 30-34 was 97.3 births per 1,000 women and for women aged 35-39 the birth rate was 48.3 births per 1,000 women in 2012. Compared to the older age groups, the birth rate for women aged 40-44 was 10.4 births per 1,000 women, and 0.7 births per 1,000 women for women aged 45-49. Only 600 births occurred to women aged 50 and over in 2012, which is a significant increase from 1997 when the number of births for this age groups was 144 births (Martin, et al, 2013: 6).

The advances in technological interventions have helped to allow women of older age, or high-risk, to continue to deliver without or with fewer complications. The birth rate for women aged 50-54 was 0.5 births per 10,000 women, which is unchanged since 2006. As in previous years, cesarean delivery rates were higher for older mothers. One in two births to women aged 40-54 were delivered by cesarean compared with less than one in four births to women under age 20 (Martin, et al, 2013: 10). This is because women over the age of 40 are considered part of the

high-risk group, meaning they are more likely to have complications during their pregnancy and during the delivery, therefore there are more cesarean sections performed within this age cohort.

The data presented here is representative of the nation; it gives a general overview of how far obstetric care has come and where it is today. Based on the historical patterns of obstetric care and the trends seen today, it is important to think about how this care will change in the future. In order to do this, I have interviewed the program director of the Obstetrics Clinical Outcomes Program (OBCOAP) from the Foundation for Health Care Quality, a non-profit organization in Seattle, Washington working to reduce the variation in outcomes and improve the quality of care for patients in Washington State. Using a unique model of clinician-led, datadriven partnership, OBCOAP works in collaboration with participating hospitals from around the state to promote changes in the care of labor and delivery, as well as to lower costs. Its members include hospitals that are perinatal levels I, II, and III; including urban, suburban and rural hospitals. The program director, Kristin Sitcov, works to analyze the data abstracted from participating hospitals and evaluate the labor management practices and interventions used in labor and delivery, comparing the implications of care decisions. From this, and the discussions among committees that follow, methods for achievable and sustainable improvements are explored.

To better understand the impact of both past and current care decisions, I interviewed Sitcov on her perspective on the future outlook of obstetric care. Upon asking Sitcov where she believes obstetric care is headed, she responded:

Well, looking at it from this perspective, the non-clinical perspective, and seeing what some of the trends are with payors, particularly like Medicaid that pays for over 50 percent of the births in the state of Washington, it is really a movement toward using midwives and other nurse practitioners and non-physician care givers to provide more prenatal health care and for low risk women. And because I see payors trending towards covering more homebirths and birth centers, which I know right now Medicaid had not been paying that and there was a big move towards getting approval for home and birth center coverage, I think we're going that direction, whether or not there will be some unintended consequences of that I don't know. But I think that midwifery care as a whole is growing and that coverage of it is also going to grow.

Sitcov is reacting to the fact that payors, the entity responsible for paying the medical bills, is

shifting towards covering the costs of midwives and therefore, the use of midwives is going to

increase. The main reason for this, as Sitcov sees it, is economical. Sitcov explains:

For a payor, it is less expensive for a non-physician caregiver and what is termed a mid-level practitioner, so midwives would fall in that same category. They're much less expensive than paying a physician to care for a healthy person throughout their pregnancy and to deliver their baby when it may not be necessary to have someone of that level of training. So I think that's one of the biggest drivers, is just cost.

While physicians, such as OBGYNs, may have higher training qualifications, one can receive the

same quality care, and sometimes better quality care, with a non-physician caregiver, including

midwives, for much lower costs. According to Sitcov, "the cost difference between a typical

hospital birth and a delivery in a birthing center can range from \$8,000 for a totally

uncomplicated hospital birth to up to \$16,000 and \$20,000 for some cesareans, even higher for

more complicated deliveries, and usually around \$2,000 for birthing centers." For this reason, we

are beginning to see payors covering the costs of midwives and therefore there is a significant

rise in the public support for midwifery, which is driving the increased use of their services.

In addition to economical savings, midwives are progressively gaining more attention from a quality standpoint. A key indicator of the growing support for midwives is the legislative bill that is currently being passed in Washington State. As Sitcov explains:

Last Monday a bill was introduced to require that licensed midwives collect data on 100 percent of their cases and submit those to the national database of midwifery. They introduced that last year but ran out of time in the legislative session so it just kind of died. That it is running through the Senate Health Care Committee this year is a huge indictor that there's much more interest in [midwifery] from everyone's perspective.

The bill Sitcov is referring to is the House Bill 1773, an act relating to the practice of midwifery. The bill has three main outcomes creating the following requirements for licensure: thirty hours of continuing education every three years, mandatory peer review for quality assurance, and submission of perinatal outcome data to a research organization (Morrell 2014:1). This bill demonstrates the effort towards strengthening and generating accountability for the midwifery profession in Washington State. Although this is only one state, it is still a huge indicator of the emerging support for this type of care.

An additional implication of the escalating support of midwives in perinatal care is the policy changes OBGYNs are beginning to employ in their practices. As it can be seen in the data, cesarean rates are slowly beginning to decrease. A large portion of this comes from shifting the mindsets of obstetricians and the implications that result from this. As Sitcov says, "there is definitely a push for practitioners to be much more mindful of why they're doing what they're doing, of why they are doing cesareans." Sitcov believes that one of the biggest influences changing this outlook is using the data analyses to make recommendations for obstetricians around labor management. Sitcov explains:

Looking at analyses such as the Bree recommendations which were really designed to look at people who are, sort of taking all the people sick or at highrisk in some fashion, taking those completely out of the equation, and just talking about normal, healthy pregnancies that are expected to go into spontaneous labor and deliver, that there is a lot of labor management guidelines that are really being emphasized right now to try and to reduce the number of cesareans.

A main initiative in Washington State that has resulted from such analyses is the Dr. Bree Collaborative (Bree), which is a statewide consortium that annually identifies up to three areas where there is substantial variation in practice patterns and high utilization trends that do not produce better care outcomes. After the Bree selects a topic area, it appoints an expert workgroup to develop evidence-based recommendations for improving quality and reducing waste in the health care system. These recommendations are then sent to the Health Care Authority to guide state purchasing programs, such as Medicaid. The Bree, in association with OBCOAP, has had a significant impact on changing the attitudes of obstetricians and the general public's outlook on labor and delivery care. An interesting piece of this analysis is that the advice given to obstetricians on how to change their practice is similar to the guidelines midwives include throughout their practice. Sitcov comments on this:

Those are things that midwives just normally do as just part of the midwifery practice. Nurture someone through labor, give them time, and help them navigate through longer labor and just allowing nature take its course. And midwifery is all about supporting that process. Hospital based care tends to, well once you get in the door and are put in the bed, this system falls on your head basically. If you haven't made any progress in six hours, well let's do something about it, give you some drugs or send you into the operating room. The wheels start turning for many reasons.

Due to the shifting nature of labor management, there are cultural changes gradually developing throughout the nation. As obstetrician become more aware of their actions, as cesarean rates begin to drop, as midwives become employed more frequently, the nation as a whole will start to become more mindful of the implications of labor and delivery decisions. As Sitcov explains, "There are a lot of cultural changes, both on the patient side and the physician side that are starting to change, because there is more attention being paid to the idea of, we need to start giving people more time and support them through the process and not pull the plug too quickly. That's happening nationally, there is a lot of emphasis right now."

Compared to Europe

Compared to European nations, such as the Netherlands, a country with the same

technological advances and similar amount of wealth as the United States, the outlook on birthing interventions is much different. Since the 1990s, the Netherlands has had the lowest rate of cesareans out of all the OECD (Organization for Economic Cooperation and Development) countries, while the United States has one of the highest (Figure 2). In the 1990s, when technological interventions were on the rise, the United States' cesarean rate was 22.7 percent, compared to that of the Netherlands, which was only 7.4 percent (Figure 2). In just over a decade, the Untied States' cesarean rate increased 9.6 percent rising to 32.2 percent by 2009, while the Netherlands' cesarean rate nearly doubled but still remained relatively low at 14.3 percent in 2009 (Figure 2). The slow progression of cesarean rates in the 1990s in the United States is a result of changes in obstetrical practice including trial of normal labor and delivery after a woman has had a previous caesarean to reduce the number of repeat caesareans. The rapid increase thereafter, however, is due in part to reports of complications from trial of labor and continued changes in patient preferences. The spike in cesarean rate from 1990 to 2009 seen in the Netherlands can be attributed to global trends such as increases in first births among older women and the rise in multiple births resulting from assisted reproduction. More recently, the low rate of cesareans seen in the Netherlands since 2009 is due in part to the commonality of home births (30 percent of all births occurred at home in 2004) (OECD 2011: 96).

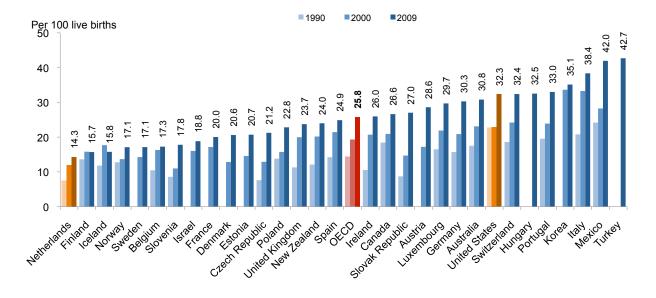


Figure 2. Cesarean sections per 100 live births 1990-2009. Netherlands and United States are highlighted in orange, OECD average highlighted in red. (OECD 2011: 97)

The reasons for this large disparity in cesarean rates between the United States and the Netherlands could be due to a number of different factors. The first is that the health care systems of these two countries vary immensely. Differing from the United States, the Netherlands has a dual health care system in which all primary and curative care is covered by compulsory private insurance, this includes family doctors, general practitioners, obstetricians, hospital and clinical services, and postnatal care (Figure 3). In paying for insurance policies, there is a monthly contribution along with an excess, which covers the first 350 European dollars of treatments, however, there is no excess fee on services supplied by GPs, obstetric and postnatal care; these are completely free (Expatica 2014: 1). While long-term care is covered by social insurance, which is funded through taxation. All Dutch residents are covered by long-term care and everyone over eighteen is required to take out basic health care insurance. Insurers must offer the same universal care package at a fixed price for all. Insurers may then offer supplementary services at additional costs. The majority, if not all, supplementary packages

cover the services of midwives in hospitals, birthing centers, and even home births. A unique aspect of the Dutch health care system is that certain health insurance policies covering additional care entitle clients to receive a kraampakket – a home birth hamper full of all the necessary essentials for delivery (Expatica 2014: 2). The universal coverage of primary care in the Netherlands coupled with low cesarean rates reflect the idea that midwives are widely used for the high quality care they provide. If obstetricians are covered by health insurance plans but Dutch residents are choosing to use midwives instead, this leads to the conclusion that the practices of midwives are highly favored in the Netherlands, which greatly differs from the United States. Conversely, through the health care system of the United States almost all patients pay in part for hospital visits, postnatal care, and obstetricians (Figure 3).

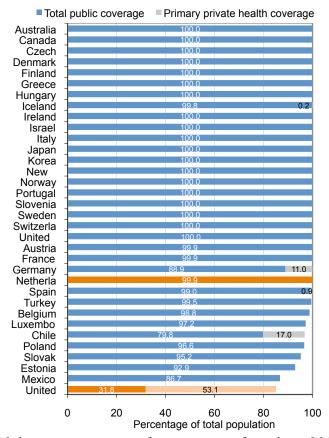


Figure 3. Health insurance coverage for a core set of services, 2011. Netherlands and United States are highlighted in orange. (OECD, 2011: 96).

More importantly, the majority of insurance plans do not cover midwife services such as birth centers and home births, so women must pay out of pocket if they so choose to use this. Consequently, the health care system of the United States may be one of the reasons for the low use of midwives, and therefore, the unnecessarily high cesarean rates.

Not only do the structures of the health care systems differ in the United States and the Netherlands, but there is also a significant affect of the United States' health care system that negatively contributes to the cesarean rate, which is not as substantial in the Netherlands. According to the OECD (2012:96), malpractice liability concern is one of the leading reasons for the increase in cesarean rates in the United States. Obstetrics is an area of medical practice that is most highly affect by malpractice risks (Kim 2006: 3). In order to avoid a lawsuit or to increase the chance of winning a malpractice case, a physician may perform procedures that have little or no medical benefit to the patients, but that protect him from possible future litigation. In particular, it is often suggested that malpractice concerns encourage OBGYNs to perform more cesarean sections than are medically needed. There are a number of ways through which malpractice fears can alter the decision to deliver a baby by c-section rather than vaginally. Some have suggested that patients can more easily argue physicians' negligence when they fail to perform a timely procedure. Subsequently, the decision to not act, meaning to not deliver the baby by c-section, leaves a doctor vulnerable to a lawsuit when complications arise. Thus, the potential for malpractice lawsuits increase the number of unnecessary c-sections performed and therefore lead to a significantly high cesarean rate in the United States.

An additional difference from European nations, such as the Netherlands, is the overall outlook on natural childbirth and midwives. Dutch healthcare is generally non-interventionist in practice, therefore, the viewpoint on childbirth is that it is not a medical condition and pregnant women should not be treated as patients. As a result, pain relief during labor and delivery is not encouraged and home births are very typical. For women with low-risk pregnancies, home births are the most common option, occurring in 30 percent of all births in 2004 (Expatica 2014: 2). In addition to the "natural route" attitude of pregnancy, routine check-ups are not the norm of the Netherlands, a complete change from the United States. In the case of pregnancy, it is not common that a gynecologist checks Dutch women after the age of 30, even if she is pregnant with her first child. It is expected that there will be occasional check-ups during pregnancy, unless otherwise requested. This is common whether a midwife or OBGYN is the primary caregiver. In the United States, pregnant women regularly have check ups by their obstetrician or gynecologist, a service that some feel can be too intrusive on the pregnancy. By employing routine check-ups and medical tests, pregnancy is treated as an illness that physicians must care for by way of medical interventiona. As Mander and Murphy-Lawless (2013:54) describe the meaning of medicalization in the United States, "it turns healthy life events, such as childbirth, into a problem." In clinical practices of childbirth, the medical approach indicates the change in the culture of childbearing from a domestic and social phenomenon to a potentially pathological event (Mander and Murphy-Lawless 2013:54). This contrasts greatly from the approach taken in the Netherlands and this is another reason why midwives are more prevalent in the Netherlands rather than the United States.

The conflicting attitudes toward midwives in the United States and the Netherlands have come into place through the historical shifts of both nations and are reflected in the use of midwives compared to OBGYNs (Table 4).

	Country	1980	1985	1990	1995	2000	2005	2009
OBGYNs	Netherlands	-	689	-	831	978	1,1591	1,252
Midwives Licensed	Netherlands	-	-	-	-	2,230	3,000	3,751
to Practice								
Practicing	Netherlands	825	947	1,119	1,349	1,651	2,242	2,522
Midwives								
Professionally	Netherlands	-	-	-	-	1,824	2,465	3,071
Active Midwives								
OBGYNs	United	-	-	-	36,378	38,900	41,306	41,526
	States							
Certified Nurse-	United	254	209	232	507	451	293	323
Midwives	States							
Certified Midwives	United	0	0	0	0	7	6	2
	States							

Table 4. Number of OBGYNs and Midwives in the United States and the Netherlands, 1980-2009 (OECD 2011). – indicates time period when there is no data provided.

While midwives were accepted to practice in hospitals and training institutions were established in Europe in the beginning of the 1800s, the United States population was opposed to this. In 1817 Dr. Thomas Ewell proposed to establish a school for midwives connected with a hospital, similar to that of Europe, and sought federal funding (Feldhusen 2000: 2). The funding was denied and the school never came to be (Feldhusen 2000: 2). This opposition to midwifery continued into to late twentieth century. In the 1970s, the American College of Obstetricians and Gynecologists (ACOG) actively discouraged homebirth (Feldhusen 2000: 10). Doctors who participated in homebirths by offering backups in emergencies were threatened with loss of hospital privileges and even their medical licenses. In the mid-1980s, The American Academy of Family Physicians (AAFP) opposed nurse-midwifery and issued formal statements to that effect in 1980, 1990 and 1993. AAFP stated the belief that all nurse-midwives should work nonindependently, under supervision of a physician, and that all payments should go through the physician (Feldhusen 2000:11). With these historical patterns, America has created a trust in physicians and hospitals, or rather a distrust in midwifery. As for European nations, like the Netherlands, they see midwives as the non-invasive, all natural route of medicine, which the country embraces.

Compared to countries that had the same technological developments introduced at the same time as the United States, the cesarean rates of the United States are still significantly higher than most. This infers that the United States is using medical interventions during childbirth that are not required to produce the same, if not better, obstetric outcomes. In addition, evaluating a country such as the Netherlands and their approach to childbirth, promoting the frequent use of midwives in the home and the encouragement of minimal medical interventions, again infers that the model of the United States employed, including frequent medical and technological interventions, is not always necessary to provide successful deliveries. However, the long history of accepting and trusting the practice of physicians and hospitals in the United States has created a boundary between physicians and midwives, building distrust around midwives and natural childbirth. Whereas in countries very similar to the United States, the cultural concept surrounding childbirth is much different, midwives and their practices are embraced and have proved to provide higher quality care and healthier infants and mothers.

Conclusion

The changes in obstetric practices over time have been dramatic, beginning with the introduction of males into the midwifery field. When males entered the midwifery practice they brought with them the introduction of medical instruments, such as forceps, prefacing the technological interventions of childbirth. During the time when male physicians begun to take over for female midwives, more medical interventions were introduced, including drugs for pain relief and the induction of labor. With this came an increase in cesareans performed, and thus the

frequency of births in hospitals rose. At the same time that physicians were receiving increased education and training, the opposite was occurring for midwives; midwifery institutions could not find the necessary funding and midwives progressively became less employed, reducing both the public and professional support of their practice. The American public had put their trust in physicians and hospitals rather than midwives and homebirths, again leading to increased cesareans and use of medical interventions, bringing us to where we are today.

Compared to European Nations, the United States has higher cesarean rates but the same technological advances as these countries. In addition, European nations, such as the Netherlands, employ midwives as the primary caregiver throughout a pregnancy much more frequently than obstetricians and gynecologists, varying significantly from the United States. These great contrasts from European countries on the outlook of childbirth leads to the conclusion that the United States is using frequent medical interventions for normal, low-risk childbirths that are not required to produce successful, healthy deliveries. Employing midwives and their practices would result in improved obstetric outcomes. The non-interventionist outlook of childbirth has proven to provide higher quality obstetric care, lower cesarean rates, and overall, healthier infants and mothers.

Chapter Two: Obstetricians and Midwives

Introduction

When choosing a birthing method, one of the most important decisions a mother can make is her care provider, but how does she decide? To fully understand this decision-process it is crucial to dig into the backgrounds and birthing philosophies of obstetricians and midwives. As there are two main approaches to childbirth, the medical model and the holistic model, midwives and obstetricians fall one to each end of the spectrum. For the mother, she must decide where she lays on this spectrum, whether she wants to take the medical approach to childbirth or the natural approach, employing a specific care provider will help make, if not determine, this choice. This chapter is based on in-depth interviews with two certified professional midwives, one certified nurse-midwife, and one obstetrician-gynecologist. While this is a small sample of health care providers, their responses help to illustrate the outlook of childbirth from contrasting viewpoints. To supplement the small sample, I include a literature review on the controversies of childbirth including choosing a primary birth attendant, the use of pain medication, prenatal care, and technology's place in childbirth.

Training

Obstetrician-gynecologists (OBGYN), certified nurse-midwives (CNM), certified midwives (CM), and certified professional midwives (CPM) all differ in the training and certifications they must receive in order to carry out their desired practice. OBGYNs have specialized education and training in pregnancy, labor, and pueperium care, as well as the health of the female reproductive system (Cornell University 2013:1). The American Board of Obstetrics and Gynecology (ABOG) set the education requirements and qualifications for

OBGYN training. The requirements include the following: graduation from an approved medical school, competition of an accredited OBGYN residency program (minimum of 4 years), increasing patient responsibility with each year of training, and serving as senior resident during the final year of residency. The residency program must involve rotations in obstetrics, gynecology, gynecologic oncology, reproductive endocrinology, and ultrasonography. Additionally, a residency must include experience in primary and preventative care in inpatient and ambulatory care, diagnosis and management of breast disease and lower urinary tract dysfunction, and performance and interpretation of diagnostic pelvic and transvaginal ultrasound. Once these requirements are met physicians are allowed to take the certifying examinations given by ABOG. Physicians who pass the examination are granted board certified status in Obstetrics and Gynecology, which is a prerequisite to subspecialty certification. If certified in obstetrics and gynecology after 1986, the physician must complete a recertification process every 10 years to maintain certified status. There are four recognized subspecialties in the field of obstetrics/gynecology, which include gynecologic oncology, maternal/fetal medicine, reproductive endocrinology and infertility, and urogynecology/reconstructive pelvic surgery. Each subspecialty has its own certification exams administered by ABOG, and physicians can become certified in one or more of them (Cornell University 2013:2).

The standards for education and certification in midwifery are identical for CNMs and CMs. However, there are various distinctions between the training and education requirements for CNMs and CPMs. The professional association for CNMs is the American College of Nurse-Midwives (ACNM) and the certifying organization is the American Midwifery Certification Board (AMCB) (ACNM 2011: 1). CNMs must have a graduate degree in nurse-midwifery from an accredited program; a master's degree is the minimum requirement for the AMCB

certification exam. In addition to a graduate degree in nurse-midwifery, a bachelor's degree from an accredited college or university is also required. Prior to taking the national certification exam, verification by program director of completion of education and active registered nurse (RN) license is required. Recertification is required every five years. There are several clinical experience qualifications including attainment of clinical skills meeting the Core Competencies for Basic Midwifery Education requirements; clinical education must occur under the supervision of an AMCB certified CNM or CM; clinical skills include the management of primary care for women throughout the lifespan, including reproductive health care, pregnancy, and birth, care of the normal newborn, and management of sexually transmitted infections. CNMs are licensed in all 50 states plus the District of Columbia and U.S territories (ACNM 2011:2).

The education and training requirements for CPMs vary from those of CNMs in that there is no degree required for CPMs and the certification exam is authorized by a different organization. The professional association for CPMs is the Midwives Alliance of North America (MANA) and the National Association of Certified Professional Midwives (NACPM). The certifying organization for which all CPMs must register through is the North American Registry of Midwives (NARM). The certification requirements to become a CPM include a variation of options consisting of the Completion of NARM's Portfolio Evaluation Process (PEP) pathway, becoming a graduate of a midwifery education program accredited by Midwifery Education Accreditation Council (MEAC), or Completion of a state licensure program (ACNM 2011:1). There are two primary courses for CPM education, with differing admission requirements. The first is the PEP pathway, an apprenticeship program; there is no degree or diploma required. Students must practice under a midwife instructor who is nationally certified or state licensed, has practiced for at least 3 years, and attended at least 50 out-of-hospital birth. The second is the accredited formal education pathway, for this option a high school diploma from an accredited state or private school is required for admission. In addition to the education requirements, there are also clinical skill requirements to become a CPM. Attainment of clinical skills must meet the Core Competencies developed by the Midwives Alliance of North America. Clinical education must occur under the supervision of a midwife who is nationally certified, legally recognized and who has practiced for at least three years and attended 50 out-of-hospital births. Clinical skills include management of prenatal, birth and postpartum care for women and newborns. CPMs are regulated in 26 states varying by licensure, certification, registration, voluntary licensure and permit (ACNM 2011:2).

The Medical Model versus The Holistic Model

When approaching childbirth there are two extreme models that health care professionals hold, the medical or technocratic model and the holistic or midwifery model. The medical or technocratic model of birth is the foundation of modern obstetrics, by which most obstetricians and gynecologists follow. According to the technocratic model, the human body is a machine (Davis-Floyd 1992:52). As Davis-Floyd (1992:53) discusses, the male body is seen as the better machine because it is more consistent and dependable than the female body, less subject to the unpredictability of nature and therefore is less likely to break down. Under the technocratic model, the female body is viewed as "an abnormal, unpredictable, and inherently defective machine" (Davis-Floyd 1992:53). During pregnancy and birth, the unusual demands put on the female body render it constantly at risk of serious malfunction or total breakdown. This notion that the female body is a defective machine and must be fixed gives physicians the task of repairing them. For the vast majority of modern obstetrics, technology and birth are inseparable.

Hospital births were quick to adopt the assembly-line production of goods model when the technological wonders of modern medicine were first being developed. In accordance with this metaphor, in the hospital the woman's reproductive tract is treated like a birthing machine with skilled technicians working to meet production and quality-control demands (Davis-Floyd 1992:55). Today, the hospital is a highly sophisticated technocratic factory, due to the rise in technological advances. As an institution, the hospital constitutes a more significant social unit than the individual or the family, so the birth process conforms more to the institution than personal needs (Davis-Floyd 1992:55). This idea is reflected in talking with OBGYN, David, who has been a physician for 23 years practicing at a small, private hospital in Seattle, Washington. David explains the focus of the hospital during childbirth:

In many hospital settings the focus is often not enough on the mother, but instead on the required documentation and the ever present monitoring of both the mother and the fetus. It can make it a sterile and impersonal experience. If an OBGYN does the delivery he or she has many demands other than the person in labor or is tired from long workdays. It can be about juggling those demands and trying to make the delivery the least disruptive as possible.

While David is an OBGYN and practices the medical model of childbirth, he is concerned that there is too much intervention in this approach, taking the focus away from the mother and the baby and possibly leading to complications. David comments, "Generally, I may not be a normal practitioner. I prefer the least amount of intervention unless there is a documented benefit. I feel the more you intervene the more chance there is for a complication developing both to the fetus and the mother." Here David diverges from the medical model, as he describes the medical model of childbirth to include medical interventions, but does not like to practice it himself. The medical interventions that are used in the hospital are attributed to the medicalization of childbirth, a term used synonymously with the medical model. As Mander and Murphy-Lawless (2013:54) define it, "Medicalization of birth has been defined in terms of medical interventions

during childbearing." The process of the medicalization of childbirth has been facilitated by technological developments, use of an elite language or jargon, problematization of healthy childbearing, assumptions of control of all aspects of childbirth and the masculinization of obstetrics (Mander and Murphy-Lawless 2013: 91). While OBGYNs have continued to use the medicalized approach to childbirth since the introduction of its practice, midwives oppose this philosophy. Midwives associate the medical model of childbirth with doctors intervening in the natural and normal process, which they believe is not the appropriate approach for healthy, low-risk pregnancies. As Rebecca, CPM of 10 years, commented:

Most doctors that go through medical training have never seen a normal birth, ever. They don't know what it looks like. They're use to, oh there's a problem; I have to go and *remedy* the situation. They see a woman in labor, in her glory and in her strength, it has appeared it is so uncomfortable and many women have posited this idea, that they are typically wanting to intervene and it breaks her strength, it makes her a victim.

Rebecca reflects the foundations of the technocratic model of physicians going in and fixing a problem, when in most cases, there is no problem to begin with. As Rebecca states, OBGYNs have been trained to view childbirth in this way, whether it is a healthy or complicated delivery, it is their job to intervene and advance the birth on their terms. Agreeing with this notion is Claire, a CNM for over 30 years. Claire does not believe one can generalize about the care OBGYNs provide for their patients, however, she does believe the training of OBGYNs is leading to unprecedented results. Claire explains, "We now have had 25 years of training of doctors in a model of care that is more focused on intervening in a normal process and has yielded a 34 percent cesarean section rate and that is not sustainable and people are increasingly recognizing that." The concept that doctors are trained to intervene in a normal process is one that is held among midwives because it is what is taught through the medical model of childbirth,

contradicting the holistic model. Midwives disagree with this training and believe that interventions should only be used for life saving circumstances.

Midwives follow the holistic model of childbirth, which promotes natural childbirth, implementing as little medical interference as possible, unless it becomes a necessity. Under the holistic model, the human body is a living organism with its own innate wisdom (Michaelson 1988:156). Midwives virtually never interfere with the normal birth process. "Midwives manage deliveries by patiently waiting for nature to do the work" (Radosh 1986: 131). Mary, a CPM of 10 years describes birth as "a normal, natural process; one that women make decisions and midwives support." Agreeing with this definition, Claire describes her birthing philosophy:

Well I like most other midwives, consider pregnancy, labor and birth all physiological events in a woman's life so I embrace them, embrace it as a completely normal part of women's lives and something that women's bodies are meant to do.

A key aspect of the midwifery philosophy is that birth is a normal process, one that should not be interfered with because women's bodies are made to go through this experience, they are prepared for the changes and demands put on them by childbirth. As Michaelson (1988:157) states, "The mother's body knows how to grow a baby and how to give birth; she can trust the 'knowing,' for it belongs to her. The uterus, much more than an involuntary muscle, is a responsive part of the whole. Birthing is an activity that only a woman can do; she delivers the baby to its family and to its new life." As such, the role of the birth attendant is to nurture and empower the mother. According to the Midwives Alliance of North America (MANA) the midwives model of care includes, "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, and identifying and

referring women who require obstetrical attention" (MANA 2014:7). Essential in promoting this approach is the encouragement of empowerment and strength in women, as many women come into childbirth from a place of fear, so midwives are there to support them. Claire discusses this philosophy:

I work hard to have women be as healthy and well as possible and have a sense of wellness and empowerment so that they can be pregnant in a strong and empowered way, labor in a strong and empowered way, deliver, breastfeed and then mother in a very strong and empowered way. I think it impacts our whole society, when women are strong our whole society is strong.

While some midwives believe that the approach physicians have toward childbirth alters this philosophy by taking control of women and their pregnancy, Claire disagrees. As long as a woman feels safe with her health care provider Claire believes an OB can still offer the necessary

support. Here Claire explains:

I think that's the most important thing, for women to feel safe and comfortable with whatever provider they choose because if you don't feel safe and comfortable then you won't be able to give birth, you can't open the door to give birth if you're feeling frightened or unsafe. So some women feel safer in the hands of midwives and some people feel safer in the hands of doctors. And women should be with whichever care provider they feel safest with. I think you can absolutely have an empowered birth experience with a doctor.

While Claire argues that OBs are able to offer the necessary support to women, both midwives

and physicians agree that midwives provide a more personal experience, which goes along with a

less interventional approach. David, the OBGYN, supports midwives for this reason. David

comments:

I am a big fan of nurse-midwives. I think they can be more personal and take more time. A midwife's only focus is on pregnancy versus an OB who is concerned about obstetrics, gynecology, other aspects of a woman's health. If resources were used correctly, OBs who are more highly trained would be used more as a consultant or to deal with difficult pregnancies and deliveries. But for low risk patients, midwives often give a more personal experience and I think this is why a woman would choose one. In Rebecca's experience, she has seen women choosing midwives as a means of independence; women want to decide the course of their own pregnancy and for this reason choose to use a midwife instead of an OB. As Rebecca states, "[Women] don't want anybody to do anything to them. I don't even think I would say it is fear so much as they want the freedom to do what they want to do and be in whatever position they want to be in; they want autonomy." Through the holistic model of care, the belief in each woman's right to maintain control of her body and her care is promoted (Michaelson 1988:130). Midwives support women in having the independence and power to make their own decisions, a midwife-led birth gives a woman a measure of control generally unavailable with a physician-led, hospital birth—the freedom to move, eat, bathe, or whatever else might help her labor and birth more confidently (MANA 2014:7). The role of a midwife is to monitor labor, guiding and supporting the woman safely through the birthing process. The midwife seeks to facilitate the woman's own ability to give birth as she wishes, rather than putting the woman in the "submissive patient" role during birth (Mander and Murphy-Lawless 2013:166). When asked to describe her role as the primary birth attendant, Rebecca responded in saying, "My idea of a successful birth is that I haven't done anything, including vaginally check for dilation. For example, most of it is intuition; my not doing anything is the most empowering thing for clients." For many women, care with a midwife allows them to birth in their own way, safely and naturally, surrounded by the people who support them. In fact, in settings where the woman has control of her own pregnancy, such as at home or with a midwife, there have been better labor outcomes. According to MANA (2014:8), "Many studies show that midwifery care through labor and delivery lowers complication rates and reduces the likelihood of unnecessary cesarean section." Additionally, David notes:

Surprisingly, in a large study, there was no difference in outcome in home versus hospital outcomes. Actually, there was a difference and patients did better at

home. This didn't account for patients that started at home and then transferred to the hospital with complications. But it did look at normal pregnancies in both settings at the time labor began [David, Franklin March 13 2014].

David's comment on the success of homebirth again illustrates his support of the midwifery

practice. An interesting contrast to this is Claire's outlook on homebirths compared to hospital

births. Claire, a CNM who delivers in a hospital, believes the hospital is a better setting for

delivery for the following reason:

Well I think that the data is all pretty consistent, that about 10 percent of homebirths are complicated and need to be transferred to the hospital and as midwives in the hospital, about 10 percent of our patients become complicated. The thing that is the difference is when we deliver in a hospital we don't lose control of our patients because we're not transferring them into the hospital from an out of hospital setting. We're continuing to care from them and we are collaborating with our team.

Other midwives would disagree with Claire, although midwives do not want to lose control of

their patients when transferring them, they believe the home is a better setting to labor and

deliver one's child. As MANA states:

Homebirth provides the perfect environment for mother-baby bonding by allowing continuous physical contact between mother and newborn, while maintaining a safe and supportive space in which she can do the work of labor, and touching or even assisting the birth of their baby. This attachment is not only crucial to a mother's transition and healing, it enables a baby to respond fully and joyfully to life and develop future healthy relationships [MANA 2014: 8].

Mary would agree that the home is the best environment to give birth. Mary describes homebirth as such, "When a woman is in her home she is in her nest. By taking a woman out of her home you are taking her out of her nest, exposing her to germs, fear, and anxiety." Women who fully accept the holistic model tend to give birth at home, as hospital births contradict the premise of the holistic model.

The foundation of the holistic model is based on promoting natural childbirth. According to Grantly Dick-Read, the man responsible for introducing the term into popular usage, natural

childbirth means, "unmediated and uninterfered with labor and birth; in which the major function of the birth attendant is to support the woman to relax and to have faith in the normal and natural outcome of childbirth" (Michaelson 1988: 162). The core of this natural childbirth model does not focus on the presence or absence of obstetrical procedures but on the conscious participation of the mother in her own birthing process, she must "be awake and aware as she labors and gives birth, she must feel the sensations of labor and birth, and she must have active efforts to push the baby out" (Michaelson 1988:162). While this may be the coined definition of "natural childbirth", the concept of natural birth varies between health professionals, midwives, and from mother to mother. According to Rebecca:

A natural birth is one, preferably delivered through her vagina, without medicine, but also birthing with a sense of empowerment through the space in her environment, emotionally secure, spiritual secure, safe to practice and be herself. That's to me a natural birth and it's just difficult to get those dynamics to happen in a hospital setting.

As noted here, many midwives believe it is harder to provide the appropriate setting in the hospital for a natural birth, but not necessarily impossible. Claire, the certified nurse-midwife, performs what she believes to be natural childbirth in the hospital everyday, showing that natural birth truly comes down to the mindset of the mothers and the support system she is surrounded by. As David states, "In general terms, a natural childbirth would loosely refer to any successful vaginal delivery. I think anyone who is low-risk, which is the majority of patients, technically are good candidates for a natural birth." However, Rebecca would disagree with this definition, relaying on the notion of a mindset rather than the circumstances of the birth. Rebecca explains:

You can have a natural birth meaning it came out of one's vagina but a very unnatural set of circumstances- a mean midwife, an insensitive husband, a woman who is more scared than she is confident. So birthing out of your vagina is not the goal, we don't think natural- vaginal. No. I've seen women more prepared for a necessary cesarean with a natural mentality and a lot of love and joy and awareness toward their baby that I don't see sometimes with vaginal births. So it's a *mindset*.

Mary's definition of natural childbirth centers on the idea of the mindset of the birth as well. Mary stated that a natural childbirth is one in which, "the woman is in her nest, she is supported by those she loves, as natural and nurture go hand in hand, so she is not completely isolated." In order to promote and support natural births midwives work to guide women through childbirth from a place of wellness, empowerment, strength, and love, bringing their children into an environment with this same mindset.

Prenatal Care

While both types of health care providers consider prenatal care as an essential step in childbirth, OBGYNs and midwives vary in the type of prenatal care they provide. While talking to David, he stressed the importance of prenatal care in providing information to patients as well as detecting abnormalities in a pregnancy. David notes:

Typically the better informed the patient before the labor process the better they do. Prenatal care in general is important to recognize high-risk pregnancies and pregnancies that need closer evaluation to assess either the fetus or mother for potential health problems. A minimum of prenatal care has repeatedly been shown to improve pregnancy outcomes.

Rebecca agrees that prenatal care is important in providing information and detecting high-risk pregnancies as the more serious medical problems cannot be handled at home, but Rebecca's philosophy around prenatal care is much different than that of an obstetrician. While talking with Rebecca, she described her practice to me as becoming part of her patient's family, she uses the nine months before delivery to get to know and understand not only the woman but her spouse and children as well, in this way the baby is being born into a environment surrounded by people who love and support it, its family. Rebecca explains:

For homebirth women it is exceedingly important that we are doing really good prenatal care. Aside from the medical, taking all of those factors of it, when I start with a women I introduce myself to her baby; I treat her baby with complete and full respect that I would you. I do. I speak in full sentences, when I touch her tummy I do energy work, and I can feel auras and stuff with babies. So that nine months with my voice and then towards the end it's every week that they're going to be seeing me, that baby completely knows my voice before it's born and it knows my voice in relationship to the house.

Rebecca went on to explain why it is essential for the prenatal work to be done in the home of

her patients. She believes that without this type of care her practice would not be the same nor

would it be as successful. Rebecca comments:

The mom is in her own home, she's comfortable in her own environment, so her hormones are different than if she was in an office. I just covered for a midwife who meets her patients in an office and I hated it. Even though these are homebirth women it was *clinical*. But prenatal is a bonding time. It's a time where I get to know that baby and I get to know the mother's habits in her own home. If I don't see her with her husband in their home, it's all a façade. If you come to a clinic you look clean, everybody acts different in a clinic. When you go to their home with their children and play with their kids, they forget that I'm a midwife and I start to hear stories and I get to hear of potential risks factors that can present.

While prenatal care is important for various medical reasons, such as detecting potential risk factors, it is also important in creating a relationship between a health care provider and the mother, her family, and her baby. This is the greatest difference in the outlook of prenatal care between OBGYNs and midwives. "Most midwives consider psychological, emotional, interpersonal, family, and spiritual needs as essential parts of health care" (Michaelson 1988:130). Mary's perspective on prenatal care adds to this view on health care. Mary describes prenatal care as an "individualized service, a time to build relationships and give the most attention to the mother and her baby." Mary agrees with Rebecca in that prenatal care is a time to "become a part of the family." Mary went on to weed out the issue of the medical model taking away from the importance of birth being a community event, she said "the hospital setting has

taken away from what birth is suppose to look like psychosocially." This concept Mary touches on is a main reason that midwives center on prenatal care as a key aspect of their birthing philosophy, as part of the midwifery model it is important that birth is seen as a community event, one that the whole family is a part of, and the hospital setting with physicians and strangers can take away from this.

Medical and Technological Interventions

The greatest difference between OBGYNs and midwives is the use of medical and technological interventions in their practice. For OBGYNs it is part of the training process to use the assistance of medical instruments, therefore putting interventions at the foundation of the medical model. "The philosophy of medicalization has built on the concept of control, with the assistance of technological developments, such as instruments, monitoring devices and drugs" (Mander and Murphy-Lawless 2013: 91). This premise holds true in the work of OBGYNs through the need to manage the birthing situation. David illustrates this in his comment on the decision-making process as a birth attendant:

It's difficult as a physician or nurse to be very patient observing the fetal monitor showing sign of distress before deciding to intervene. Because of potential injury to the baby, even though very small, you feel you have no choice but to do a C-section to either prevent any injury or to show that you did everything possible to try and prevent a poor outcome. No one ever gets sued for doing an unnecessary C-section.

The example David gives here shows how physicians choose to intervene by way of cesarean, but they come to that approach by using technological instruments, such as the fetal monitor. Although physicians intervene to prevent injury, in emergency situations, or due to the fear of lawsuits, it is an engrained aspect of the philosophy of their training. As Davis Floyd (1992:57) notes, "A basic tenet of the technocratic model of birth holds that some degree of intervention is necessary in *all* births." Illustrating this principle is Michelle Harrison, an obstetric resident interviewed by Gregg.

Harrison felt pressured to follow the medical model. She learned that she was unable to act on her belief that it is important to allow each woman's pregnancy and childbirth to progress in its own way and time. She was expected to initiate interventions when women's pregnancies and deliveries differed from the "normal" timeline. Her choices were limited to maintaining the normal trajectory of pregnancy and birth; none were made by the pregnant woman. Harrison found she was forced to standardize her approach [Gregg 1995:86].

This contrasts drastically from the midwifery approach to childbirth. In addition to technological intervention, the medical model also employs medical interventions such as pain relieving drugs or medication to induce labor, all of which the midwifery model opposes. One perspective from midwives on OBGYNs' employment of drugs during the birthing process comes from the perspective that they are used to make childbirth easier to control. Rebecca holds a strong opinion on this issue stating, "I think that if doctors can take the sexual sounds of birth out of the room by drugging women to make them good patients, it's easier to manage. I think there is a psychosocial dynamic with doctors when it comes to drugging women." This notion Rebecca touches on, taking female sexuality out of childbirth, is one that Davis-Floyd also tries to depict.

The technology and the institutions in which we place our faith for the perpetuation of our culture are inherently asexual and impersonal. The birth process, upon which the perpetuation of our culture depends, is inherently sexual and intimate. Thus its intimacy and sexuality constitute yet another arena in which birth threatens to undermine the conceptual hegemony of the technocratic model [Davis-Floyd 1992:61].

The solution to this paradox, which the American culture has created around birth, is that "those responsible for the cultural management of birth in the United States have had to devise culturally appropriate ways to remove the sexuality from the sexual process of birth" (Davis-Floyd 1992:61). The culturally appropriate result is using medication as pain relievers or to "drug" women, as Rebecca has pointed out, making the labor and delivery easier to manage. This

is an interesting perspective as it is similar to that of David's outlook, in that he believes medical interventions, such as drugs, can be used as a way to take control of the birth. For David the decision to use drugs, such as epidurals, is a matter of patient preference, if a woman decides to use them then he encourages it as it makes the process less stressful for both the physician and the patient. David is aware that drugs are not necessary and women have successful deliveries without them all over the world, despite this, the U.S has become accustomed to the idea of using medication to relive pain and childbirth is no exception to this. David notes:

I like epidurals if they are available; it makes the whole process less stressful. But for some deliveries, when a woman does a natural delivery, being focused and controlled is also really satisfying. I think so much of this view is cultural. In this country there is an expectation of not having to have pain and with that there are lot of patients who don't do well. In other countries where drugs aren't available the expectation is very different and patients do just as well, if not better.

Not only is there a social acceptance to use pain medication, but interventions have also led society to become so reliant on technology and medical interventions that we no longer trust the woman's body on its own. As Mander and Murphy-Lawless (2013:90) explain, "The role of Continuous Electronic Fetal Monitoring is transforming the culture of birth into one of not trusting the woman's body to function without the cardiotograph. Similarly, women have come to believe that without the 'support' of the cardiotograph, the baby's heart might actually stop beating." These beliefs continue to influence the decisions of physicians and mothers aside from the fact that research shows Continuous Electronic Fetal Monitor is a controversial instrument for many reasons, another including the fact that it suggests that there is no such thing as a no-risk or low-risk pregnancy. While the medical approach to pregnancy and childbirth is based on the idea of a normal trajectory, the medical perspective includes an expectation that women will deviate from

that trajectory; because variation and riskiness are expected, instruments like the Fetal Heart Monitor must be used (Gregg 1995:86).

Resulting from these cultural and medical expectations is the increased rate of cesarean sections in the United States. Due to the fact that so many women and physicians use medications, such as pitocin and epidurals, and technological interventions, such as the Fetal Heart Monitor, there is a significantly high cesarean rate in the United States. In David's opinion, this type of intervention does not affect the outcome of labor, however, it can lead to unnecessary interventions such as cesarean sections. David explains:

Most studies show that if narcotics are used appropriately they do not affect labor outcome. If used excessively they can affect the Fetal Heart Rate and make it appear the baby is distressed leading to unnecessary intervention. There have been many studies related to epidurals showing both no effect as well as increasing the rate of cesarean section. I think if given when a woman is in true active labor, there is not a detrimental effect.

Paralleling with this view is Rebecca's experience during deliveries. Rebecca describes her past experiences here:

If there's distress, if you're not monitoring frequently enough you're not going to spot a d-cell, you're not listening through a contraction so you have to spot it. It is interesting though, right before the baby is about to come out, when the head is presenting itself, if I were to have been listening right at that moment, which I usually don't, the heart is always low, about 70-90, and any medical professional sees that they're going to flip out but I've found that it is normal, it is a natural process.

While Rebecca believes in using interventions for life saving circumstances, she does not use technological developments at the typical times a physician would as they would lead to unnecessary cesareans, as illustrated by both David's and Rebecca's experiences. The biggest problem midwives see with interventions is that they produce unnecessary cesareans. This issue is prompted by various causes: a physician taking control of the birth, technical devices indicating distress, a women not feeling comfortable enough to finish the labor, or drugs

interfering with the labor. Whatever the cause is, an increased rate of cesarean sections has been the result. As Claire notes:

There is scientific evidence that supports normal birthing processes. We live in a society that has a 34 percent cesarean section rate and a 70 percent use of pitocin during labor and upwards of 90 percent of women have had epidurals, somewhere between 70 and 90 percent. And it's the birthing practices that we're using that are leading to this cesarean section rate.

The high rate of cesarean sections in the U.S. 32.8 percent in 2012, is worrisome for various reasons (Martin, et al, 2013:2). The main reason being that c-sections are dangerous for both the mother and the baby. The risks of cesareans have become better understood in the last decade, as researchers have been able to better separate out the outcomes of planned c-sections, unplanned c-sections, and vaginal births. Researchers have since made it clear that the outcomes of vaginal birth for women and babies are better than outcomes of both planned and unplanned c-sections (Morris 2013:14). Cesarean delivery is a major surgery with many risks associated with it. These risks include infection, hemorrhage, and problems related to the use of anesthesia (ACOG 2013:2). An elective cesarean poses additional risks if one plans to have additional children, including the increased chance of serious complications occurring, such as uterine rupture and needing a hysterectomy at the time of delivery (ACOG 2013:2). For these reasons, it is of national priority that the cesarean section rate decline and that physicians start to become more mindful of their practices. Fortunately, there is hope from the medical community that the cesarean rate will begin to decline due to the raising awareness of the negative effects of increased cesareans. Claire comments on this:

The cesarean rate has stabilized this last year for first time in 25 years. So yes, I'm hopeful that it will decline. There is increasing recognition that pregnancy is normal and that labor and delivery can be normal and that we have to do better to take care of women to help shift the cesarean rate. I believe that it is shifting and that it is changing. It is now a national priority to decrease the cesarean section rate because it is now known that cesarean section rate increases maternal

morbidity and mortality. As the cesarean rate has risen so has the rate of maternal mortality, that's women dying because surgery is more complicated than normal vaginal delivery.

As noted here, in addition to increased cesarean rates, infant and maternal mortality is also a rising concern of the use of interventions on the normal childbirth process. As Rebecca asserts:

Did you know that in America we are 38th in the infant mortality rate? That is horrendous; we should not be that low. It's safer to go to Afghanistan to have your baby than it is to have your baby survive its first year here. And most people don't know that. And most countries that are above us in infant mortality don't have the money to have the technology that we do so they just let women have their babies, naturally, and look they're doing better.

While technological and medical interventions can have an appropriate place in the childbirth process, such as detecting serious complications and helping in life saving circumstance, they have been shown to increase the rate of cesareans which leads to increased maternal and infant mortality rates.

One aspect of childbirth that OBGYNs and midwives can agree one is that one of the major negative outcomes of technology's influence on childbirth is that it takes away from the intimate experience. David feels technological interventions take away from the entire experience of childbirth, stating, "It's unfortunate when the doctor, nurse and often the patient and her family are focused on monitors and tests. It takes away from the experience, *sterilizing* it." This notion of sterilizing the experience connects back to the hospital setting, once you take a woman out of her home, out of her nest, you expose her to this clinical environment- putting her in a hospital gown, laying her down in a sterilized bed, surrounding her with physicians and nurses in masks and gloves- it sterilizes the environment, creating unnatural circumstances for childbirth. This idea of a sterile environment also contradicts the premise that bringing a woman into the hospital exposes her to new germs and bacteria, making her vulnerable to infection, conditions that would not be relevant in the home, a less sterile but more natural environment.

Claire believes that it is impossible to have a completely natural childbirth with technological

interventions. Claire states:

Every single technological development, all those things impede the normal birthing process. The first one being that people don't wait for labor to start on its own, induction of labor is something that impedes the normal birthing process. Giving IV fluids, giving pitocin, giving drugs, giving medicine, keeping women confined to bed, electronic fetal monitoring, restricting food and fluids; all of these things impact the normal birthing process.

For this reason, she and other CNMs and CPMs do not use any medical or technological

interventions, other than in life saving circumstances. Claire asserts that the only interventions

they encourage are those that are naturally available:

We try not to use any interventions, except for love. Love and support and comfort and hydrotherapy and trusting the process. We work hard with women throughout their pregnancy to help them be as healthy as possible and to eat really well and grow a nicely sized baby and expand their birth volume and hire a doula and exercise out in the sun every single day, do yoga, get their heart rate up. We encourage all of these things throughout pregnancy in the hopes that the labor will begin on its own, progress on its own and that the woman will deliver with essentially no interventions. For women who do follow our guidelines, 90 percent of them will have uncomplicated labor and delivery.

The idea that medical and technological interventions can take away from the natural experience

of childbirth is one that is commonly held by women, both by women who use OBGYNs as their

primary birth attendants and by those who do not. We will see first hand experiences of this

belief in the following chapter.

The Future of Obstetric Care

While there are solid foundations of both the medical and holistic models of childbirth,

there is room for change. Looking ahead to the future, the obstetrician and midwives interviewed

believe childbirth practices are going to change to cater to the progressing cultural expectations.

Their hopes are that eventually midwives and physicians can work together to provide the best possible care, promoting natural childbirth practices.

Looking at the current relationships among OBGYNs and midwives, there tends to be a firm boundary between their practices. Some health care providers do encourage collaboration between providers, such as Kaiser Permanente in California, but the majority does not. This stems from the foundation that each practice is built upon. As Mary explains, "Obstetricians work in a hierarchal form while we midwives like to roundtable, we are always trying to reach consensus among each other and with our patients." This hierarchal practice Mary is referring to is further explained by Mander and Murphy-Lawless (2013: 37) as they describe these levels with the medical practitioner at the hierarchy's pinnacle, midwives at differing levels depending on experience, and the supposedly "compliant and passive" childbearing woman at the bottom. If midwives and physicians can find a middle ground in their philosophy of practice, cooperating with one another and blending values of their work, they may be able to one-day work together. As Rebecca explains:

I wish we could have collaborative care where a woman hires a midwife but she's also able to collaboratively work with an OB in case anything presents. Well at Kaiser they actually have midwives and the OBs are there but the midwives catch the babies most of the time and the OBs are preserved for complicated cases or a referral if something comes up because generally you don't need OBs for normal, low-risk women.

Mary also hopes for this type of care in the future and claims that we may be on our way to reaching this goal through small, administrative steps. Mary comments:

In California the supervision law has been removed, meaning that more OBs will be willing to help midwives. In the past, and still today, the law ahs been there so that OBs don't get sued for midwives' "mistakes", in this sense OBs are just waiting for midwives to screw up. This idea that a physician will be sued for missing up has ruined their quality of care, when they have a fear of litigation they don't provide the best possible care, this doesn't happen with midwives. For this reason, OBs have been ostracized in the past for helping midwives, I am not hopeful this will start to change, that more OBs and midwives will start to work together.

One method for collaborating would be to combine methods of certified nurse-midwives and obstetrician through evidence-based practice. Evidence-based practice (EBP) arose form Archie Cochrane's observation of the lack of scientific rigor in medical clinical decision-making (Mander and Murphy-Lawless 2013:56). From this the Cochran database was created in the early 1990s, a data collection service that reviews different scientific articles and brings them altogether on a particular subject to combine their strengths and statistical powers to provide recommendations based on the very best evidence. Claire describes how she uses the Cochran database to implement EBP in her care:

Evidence based strategies are ones that are based on the best outcomes related to science and the Cochran review is the gold standard for evidence-based practice. Cochran provides reviews around all different sorts of health care things and they have hundreds of reviews on pregnancy and obstetric procedures and thinking and they provide recommendations. That is how you can say if something is evidence based, if what you are doing as a provider is the best thing to do based on scientific evidence.

If both OBGYNs and midwives can implement this type of practice into their services, it could help to bring their methods together and provide the best possible care, as well as the best outcomes in childbirth.

Conclusion

While OBGYNs and midwives differ immensely in their training qualifications and philosophy of childbirth, they can agree on one thing- they want to provide women with the best possible care and the most successful outcomes. OBGYNs and midwives approach childbirth from varying perspectives, while physicians mainly view childbirth as a medical problem needing to be fixed and midwives view childbirth as a natural process running its course. There are various issues of childbirth they have differing opinions about but some they tend to agree on. While OBGYNs employ the use of technological interventions to assist them in the prenatal, labor and delivery processes, midwives do not. OBGYNs also employ the use of drugs in the labor and delivery stages of childbirth while midwives do not believe this is the best approach. A few aspect of childbirth that both health care providers do agree on is that these types of interventions take away from the natural experience of childbirth. In addition, midwives and physicians each hope to see collaboration between practices in the future in order to truly provide the best care for women during childbirth. The question is how do these controversies apply to a mother choosing her care provider? These issues and more is what I will cover in the following chapter.

Chapter Three: A Mother's Decision

Introduction

To fully understand the reasons behind specific birthing methods it is necessary to hear from the perspectives of those who are involved the most-mothers. While Listening to Mothers, a report on research conducted by Childbirth Connection, gives a brief overview of women's perspectives, the interview portion of this thesis provides first-hand experiences to illustrate the decision-making process of childbirth. The decisions during pregnancy tend to be divided between choosing to use an obstetrician-gynecologist (OBGYN) or a midwife, but it is not this simple. There are a variety of additional factors that influence women's decisions during childbirth including the pressures of cultural barriers built around pregnancy that have created a great sense of ambivalence among women. When choosing a primary care provider and making the decisions that follow that choice, fear of pain and risks dominate a woman's decision-making process. In order to investigate these cultural constructs around childbirth and the decisions mothers make I conducted in-depth interviews with women during different stages of childbirth, including pregnant mothers and mothers who had just given birth. Their responses tackle the controversies of childbirth including choosing a primary birth attendant, the use of pain medication, prenatal care, and various other issues.

Prenatal Care

An initial part of the birthing experience takes place in prenatal care. Prenatal care is the regular medical care recommended to women during their pregnancy, including consistent check-ups to treat and prevent potential health problems, for both the mother and fetus, throughout the course of a pregnancy (Alexander and Kotelchuck 2001: 307). Prenatal care has

gained an important role in the procreation process in just the last century. Shortly before the turn of the twentieth century, the idea of organized prenatal care became the focus of American gynecology. This shift towards preventative care throughout the course of pregnancy is widely attributed to British gynecologist, John William Ballantyne (Alexander and Kotelchuck 2001: 307). Ballantyne's initial interest in prenatal care was concentrated on the prevention of fetal abnormalities, but he later discovered that prenatal care could reduce the rate of maternal, fetal, and newborn deaths. Ballantyne's push for a greater focus on prenatal care led to a "promaternity" hospital setting, creating hospitals where obstetricians could study both normal and abnormal pregnancy before deliveries (Reiss 1999: 386). Previously, pregnant women needing hospitalization were admitted under the care of general physicians with no particular expertise in obstetrics. Ballantyne argued that the only way to gain proficient knowledge in obstetrics was to study the physiology of pregnancy, changes in blood and circulation, origin of the amniotic fluid and the nature of the placental exchange (Reiss 1999: 386). To assist in these studies, X-ray services and physiological chemists were introduced into the procreation process. As prenatal care began to carry more importance and technological advances improved, medical interventions started to play a larger role in the prenatal stages of pregnancy.

Pregnant women- those with access to prenatal care, that is- in the Untied States and other industrialized countries experienced more medical innovations and procreative interventions than ever before. Pregnancy increasingly became redefined as a process requiring medical and technological intervention, even before a woman becomes pregnant [Gregg 1995: 2].

As seen in past research and illustrated by the women I interviewed, the degree to which women choose to use prenatal care services varies immensely, based both on the conditions of the women and the fetus, as well as the woman's view on technology's place in procreation.

Nearly four million live births are delivered to women each year in the U.S and the vast majority of these women receive some form of prenatal care (Alexander and Kotelchuck 2001: 307). According to the *Listening to Mothers* report, 78 percent of mothers surveyed used an OBGYN as their primary prenatal caregiver, while 9 percent saw family physicians and 8 percent used midwives (Declerqc et al. 2013: 27). Almost all (98 percent) mothers indicated they had at least one ultrasound during their pregnancy, while the majority (70 percent) had three or more, and 23 percent had six or more during their pregnancy (Declerqc et al. 2013: 28). The mothers I interviewed heavily emphasized the importance of prenatal care in the birthing process. Lily, a 39 year-old college economics professor, currently pregnant for her second time, commented on prenatal care:

I think it's very important. I had monthly visits with the OB, we did an ultrasound almost every time just to make sure everything was okay and they do all the testing for your nutrient levels and make sure you don't have gestational diabetes and stuff like, which I believe is important.

Michelle, a 35 year-old college political studies professor who is pregnant for the second time, expressed advocacy towards prenatal care, as she believes it improves the outcomes of a pregnancy. Michelle remarks:

I think there's only so much you can control but having constant contact helps. My general outlook is the more information the better, so checking in with your practitioner and getting simple check ups on a regular basis is more reassuring that if there were to be a problem then it would be caught earlier. It doesn't always work out that way and there are examples of healthy women who didn't have that. But yes I think it improves outcomes quite a bit because there's monitoring if something goes wrong and also because you're getting feedback if you have questions.

For many women, using an OBGYN and the resources they provide acts as reassurance that their

pregnancy is progressing correctly; without the technology used by physicians that sense of

comfort would not be there. As Gregg (1995: 92) concludes, "The visual images available

through ultrasound confirmed women's sense of the timing of the pregnancy, made them feel closer to the baby, made the baby more real, and made them feel that the baby was healthy." This illustrates the sense of comfort technology can provide during prenatal care. Some women on the other hand, believe that prenatal care may not necessarily improve the outcome of childbirth. For example, Marie, a 37 year-old college art professor, is pregnant with her first child and based on her past experiences with unsuccessful pregnancies, she does not believe prenatal care improves the outcome at all. Marie explains:

I just feel like there are so many things that can go wrong that can't possibly be fixed. Maybe it's just my experience with having the two miscarriages that I had. Certainly there are some things that can be fixed, like gestational diabetes, but there are also a lot of things that ultimately you'll find out a lot of information, but I don't know that it's anything they can really solve. Is it important to take my vitamins? I have no idea. I take them but I don't know if they're actually doing anything. I don't know that those things are increasing the chances that I'll deliver a healthy baby.

Maries illustrates the hesitation some women feel towards prenatal care, as they believe a pregnancy will progress in its own way with or without preventative care. In this way, many women are doubtful of the improved results technology can provide for their pregnancy. In addition to this, Gregg (1995: 92) points out another negative view of prenatal care showing that, "getting visual information was not a wholly positive experience for all of the women, and women's responses to the experience included feelings of ambivalence and alienation." Some of the women I interviewed confirmed this negativity, as they believe that the use of medical interventions during this stage of the pregnancy interferes with the process too much. Anna, 29 year-old real estate agent and first time mother, used a family practitioner for her prenatal care, as she believes the services employed by OBGYNs are too intrusive. Anna describes her experience:

[Our doctor] is not like an OBGYN but she's a family practitioner who also delivers so I feel like it wasn't such intrusive care as if you were solely at an OBGYN practice. I see some people who get ultrasounds all the time when they're pregnant. You know people were always asking me, oh what's his predicted birth rate, and we only ever had one ultrasound at 20 weeks where they do the scan to make sure everything is okay, there was never any need to do another scan unless we were being overly intrusive in the birth process.

For some women, like Anna, the technological interventions of prenatal services go beyond

being intrusive to the birthing process and begin to take away from the natural feeling of

childbirth as they can treat the woman and her fetus as two different patients rather than one. For

example, Anna comments:

I think it goes down to the mother's mindset. I was determined to have a natural experience throughout the whole thing and so I did. Even though I had totally modern medical care, I mean we had a 3D ultrasound where you can see what the baby looks like, it's not just the little side shot of their head anymore, I mean you can see the kid in there. But I think that if you're not already decided how it's going to be for you, then having all that serious medial care all the way through forms your mindset.

Anna is referring to the way technological interventions, such as 3D ultrasounds, can form both

the mother's and the doctor's mindset of how the pregnancy will be treated. This notion Anna is

referring to is one Davis-Floyd and Davis (1996: 237) coined as "the technologies of separation."

As their work outlines, diagnostic technologies separate the mother from the fetus in two ways,

they medicalize pregnancy and they cause women to become invisible and inaudible (Davis-

Floyd and Davis 1996: 237). As the authors state:

We've separated milk from breasts, mothers from babies, fetuses from pregnancies, sexuality from procreation, pregnancy from motherhood. And finally we're left with the image of the fetus free-floating begin alone, analogous to man in space, with the umbilical cord tethering the placental ship, and the other reduced to the empty space that surrounds it [Davis-Floyd and Davis 1996: 237].

Along with the rise of medical interventions separating the woman and the fetus into two different patients, generally women believe that a focus on the fetus is a focus on the product

rather than the whole process of pregnancy. Changing the focus of pregnancy therefore deemphasizes the woman's role in the birthing process. As Gregg (1995: 25) explains, "When doctors consider pregnant women and their fetuses as different patients, with potentially different interests, determining whose interests come first in the case of medical interventions can become a difficult decision. When fetal interests come first, the women become the 'fetal container,' no longer a person." The problem then with reproductive technologies is that they can be used to alienate women from their own labor, fetus, and, consequently, from their baby.

Values are formed during a woman's pregnancy, which may not always be present to begin with, and these values influence the decisions made by a mother throughout her childbirth experience. Whether a mother chooses to focus highly on prenatal care during her pregnancy or believes it is less important, it is the first step in forming one's opinions around childbirth. Women who choose not to have regular ultrasounds during their pregnancy feel that the technologies provided are invasive on the birthing process, while women who have frequent check-ups and medical tests feel it provides a sense of reassurance by confirming the pregnancy is following its course. According to the *Listening to Mothers* report, a substantial majority of women (78 percent) "always" or "almost always" saw the same maternity caregiver for their prenatal care as their primary health provider throughout their pregnancy (Declerqc et al. 2013:12). This illustrates how influential women's experiences during prenatal care are in shaping their opinions about the choices to be made during childbirth that will follow.

Choosing a Health Care Provider

In addition to prenatal care, one of the early choices made during a pregnancy is the selection of a health care provider. There are many factors that influence this decision, including

but not limited to, philosophy of care, access to prenatal care, level of health insurance, gender preference of a practitioner, preference of birth facility, and use of pain management. All of the women I interviewed had access to prenatal care, varying types of health insurance, and consciously chose particular health care providers as their birth attendants.

Looking at national data to gain a larger perspective on the topic, 98.6 percent of all U.S births in 2012 occurred in hospitals. Doctors of medicine attended 85.8 percent of all hospital births, certified nurse-midwives attended 7.6 percent, and doctors of osteopathy 6.0 percent (Martin, et al, 2013: 10). Compared with the *Listening to Mothers* report, obstetricians were the primary birth attendants (70 percent) of mothers surveyed, while midwives made up 10 percent, family physicians 6 percent, and doctors of unknown specialty 7 percent (Declercq et al. 2013: 13). As noted in previous chapters, obstetricians are the main advocates of the medicalized model of childbirth while midwives encourage natural childbirth. While speaking to mothers about choosing their birth attendant the issues of pain management and being in the hospital for emergency situations were raised frequently. Melanie, a 28 year-old small business owner and second time mother, expressed her reasons for choosing an OBGYN:

I based this on my past experience and also my fears regarding alternative methods that do not offer pain medication. I didn't want to not have the option of medication. That was important to me. I also felt a hospital was the right place to be in case something went wrong. I also knew my husband wouldn't be quite as favorable for an alternative approach being that he comes from parents who are doctors. He expressed he felt safer in a hospital should something go wrong.

Many women, like Michelle, base their decision about a health care provider around their philosophy of care. As Marie commented, "I would rather be with someone I'm really familiar with and with someone I know kind of has the same philosophy as me." Marie chose to use her family practitioner as her primary care provider throughout her pregnancy even after she was referred to an OB because of her two previous miscarriages. Marie describes her initial

experience with an OB and why she wanted to stay with her family practitioner:

With my OB I went in after my second miscarriage, it was a missed miscarriage and so basically the baby had died but it hadn't come out yet. So my family practitioner wanted to wait, she wanted to see if it would just happen naturally, giving it four weeks or so, but the OB was like no no we've got to get in there and take it out so we can do a bunch of genetic testing on it and figure this out, we need to get in there right now. And I was just not comfortable with that. I definitely don't want to be super aggressive with my body the second I find out this information. So I just trust my family practitioner.

Other women choose to use an OB because they do agree with their philosophy of care, for instance, knowing ahead of time that they want to use an epidural to alleviate the pain endured during childbirth is one of the main reasons for choosing an OBGYN over a midwife as the primary birth attendant. Michelle, for example, explains:

For me an OB was sort of the natural, that's a funny word to use, but the obvious choice. Some women have more concerns about the hospital settings, which I totally respect, but that wasn't the case for me, I always knew I wanted to use an epidural and that I wanted to give birth in a hospital. And so given those two things it just made sense to use an OB. I think pain management was a big part of that.

This experience is very similar to what has been found by the Listening to Mothers reports.

According to the survey results, 17 percent of mothers reported using no pain medication while the vast majority (87 percent) used one or more types of pain medication for pain relief during labor (Declerqc et al. 2013: 14). Of the types of pain medications available during labor, an epidural or spinal analgesia was the most common (67 percent of all women) used in both vaginal (62 percent) and cesarean (80 percent) births (Declerqc et al. 2013: 14). In addition to pain management, another aspect that factors into choosing a health provider is the age of a woman. Lily expressed this concern when speaking about using an OB, "we were okay with using an epidural during the delivery and we had always planned on going to the hospital especially since it was out first one and I'm older. I was 37 at the time and I just know there are more complications when you're older. So I guess it just made sense to me." Lily, being 37 years old at the time of her first childbirth, fits into what is considered a "high-risk" pregnancy because of her age. As Gregg (1995: 97) explains, "Women between the ages of thirty-five and forty who accept a high-risk pregnancy identity based on age accept two ideas: they are 'older mothers' and older mothers have 'high-risk' pregnancies." Lily is an example of a woman who accepts this high-risk identity due to her age, however, there are some women who reject the high-risk status based solely on their age. Marie, a thirty-seven year old first time mother, explained that societal changes have given her a sense of comfort in having a baby at her age. Marie notes:

Certainly I'm way on the line of being an acceptable age, anytime you pass 35 you pretty much become much more higher risk. There's a lot more complications that can happen and you're much less likely to have a successful pregnancy and a really healthy baby. But I would say that it has become more acceptable for people to get pregnant later. I felt comfortable waiting as long as I did until I felt secure in my career or secure with my life, and that's okay.

While Marie still considers the risks of having a child at her age, she does not accept the highrisk identity Gregg refers to. Rather, she is okay with the fact that her pregnancy may be higherrisk because there are greater factors to consider than age alone when choosing to have a child. In spite of this, Marie, like many other women her age, still chose to deliver in a hospital where the necessary resources are made available in case of emergencies.

On the other end of the spectrum is the midwifery model. As birth attendants, midwives allow nature to run its course unless intervention becomes a necessity (Michaelson 1988: 130). Midwives encourage the natural birthing process, with as little medical intervention as possible. Midwives perform deliveries in hospitals, birthing clinics, and private residences. Reviewing the national data concerning midwife-attended births, out of hospital deliveries represented 1.4 percent of births in 2012 (Martin, et al, 2013: 10). Of the more than 50,000 out of hospital births,

about two-thirds (65.6 percent) occurred in a residence (home), and 29.0 percent occurred in a freestanding birthing center (Martin, et al, 2013: 10). Certified nurse-midwives attended 30.4 percent of out-of-hospital births in 2012 (Martin, et al, 2013: 10). Women who chose to use midwives, or heath providers with philosophies similar to that of a midwife, seem to reflect their same values. One mother who chose her birth attendant based on her ideals regarding the medicalization of pregnancy was Anna. Interestingly, she delivered in a hospital as she was concerned about things going wrong and wanted to have the resources available to deal with an emergency, but she did not use an obstetrician, nor did she use any pain medication. As Anna notes, "we gave birth in a hospital but totally natural. So as far as methods go when it comes to that, obviously no epidural and no pitocin to get things started; that was really important to me." Here Anna is expressing her definition of a "natural" childbirth to include no use of pain relieving or labor inducing drugs. Upon asking mothers who used an OBGYN as their birth attendant if they would consider using a midwife in the future, the general response was surrounded by the idea that midwives are used for natural childbirth and that was not their plan. As Melanie states:

I wouldn't use a midwife, but I can see the benefit and if I were going to try a *natural birth* without drugs then I would definitely want one who could help me go through the process. I think perhaps a midwife knows things that can be done *naturally* that can help prevent the need of a cesarean.

For Michelle, not using a midwife ultimately comes back to having the necessary resources available that are in a hospital setting. Michelle comments:

Some women are very committed to doing quote on quote "*natural births*" and I think midwives are so much more supportive of that. I will say, I was very happy to have an OB, I do think there are issues with it, with the hospital context delivery, so I understand the motivation to try and avoid some of that but to my mind I want every available resource in case something goes wrong and to me the hospital provides that and midwives operate in hospitals too so it's not an either or

option but I really wanted that specific medical training and I wanted that sort of whole orientation around my delivery.

On the other hand, Marie, who used a family practitioner, said she did consider using a midwife. However, it was fear and cultural norms that steered her away from making that decision. Marie explains:

I have considered using a midwife. I guess the only reason that I don't is that I'm just more familiar with what it looks like to have your baby born in a hospital than what it looks to have it born some place else or under some else's care. I know that a lot of healthy babies are born through that process and I know that a lot of healthy babies are born in hospitals. I haven't checked on the statistics, and I'm sure they're probably very similar to each other, they might even be healthier born at home. Certainly there are a lot of issues with infection that come with being in a hospital setting and certainly there are a lot of issues that don't take into consideration what's best for your body or your comfort level. A lot of things I know are pushed forward in a way that midwives might take more time to allow your body to adjust or take every possible avenue of letting things happen naturally, and I would say in general I am a proponent of letting things happen naturally, in most circumstances, but I think my fear is clouding my judgment here.

The trust that women put into the medical system is a belief that is rooted in the historical transitions of American culture. There is a strong ambivalence towards using a midwife because of the fear society has built around childbirth. The idea that a hospital is the safe place to deliver one's child because of a doctor's expertise over a midwife's intuition, or due to the medical resources available is a cultural norm brought about by the shift in technological innovations.

Transitions in American Culture

The decisions made by women today have been brought about by the changes in American culture. The time when midwives were used the most was a period when medical and technological interventions were not available. As soon as these became available, the American public began to put their trust in the medical system, using physicians and following any advice given by them. This cultural pattern has continued since then, trusting physicians and being cautious to use alterative methods. American society has built such a reliance on the advances in medicine and technology that there are rarely reasons not to trust doctors and the advice they give patients, another reason why a lot of women choose to use an OBGYN for delivery. Michelle commented on this idea, "I kind of see doctors as confident, talented, successful people and so I think sometimes that played a role in my confidence in saying, you know what, you're the doctor. During the delivery itself I was very enthusiast about the system or I was confident that [my doctor] was very skilled."

Stemming from the historical shifts, the norms created by American society to deem what a "normal" childbirth involves have changed dramatically. For many, the standard procedure is to deliver in a hospital, with an obstetrician, using medical interventions for pain management. Anna discussed the cultural norms surrounding this issue:

Most other first world countries, we aren't talking where there isn't medical advances in health, it's still midwives delivering...It's a totally different mindset in America where you see these images of women flat on their backs laboring in hospitals screaming for epidurals when they can't handle the pain when it's like, every women is capable of handling the pain. Like my friends who had gone into saying, oh I'll get it if I need and have gotten it. They are all totally strong women, totally capable of having gone through it. But it's just because of this culture telling them, this is the worst pain and there is no shame in not being able to handle it kind of thing that makes them cave.

Melanie also commented on this notion, stating that the biggest cultural influence on her decisions during childbirth was American norms. Melanie asserts, "The biggest influence is that in American culture there is a routine way of giving birth which is hospitals, drugs, et cetera. Even though my mother had three natural childbirths, it did not influence me or motivate me to try that." In agreement with this, Marie states, "I'm just more familiar with what it looks like to have your baby born in a hospital than what it looks to have it born some place else or under some else's care."

One of the biggest factors influencing the American norms these mothers are referring to is the introduction of technology into the birthing process. With the increasing practice of medical interventions on prenatal and delivery care in the late twentieth century, American standards of care during pregnancy changed to cater to the demands of technology. Once a technology becomes scientifically possible, such as advances in diagnostic techniques, people seek to find ways to use it. Demands for technologies are determined, in part, by their availability (Gregg 1995: 17). Some technologies are discovered before they have specific needs, once created medical uses for these technologies are then developed. Doctors are taught about the specific medical uses for a particular technology and then make them available to the public. By offering these technologies, such as an ultrasound or prenatal screening, these technologies are presented to women as choices; however, these offerings sometimes are made and perceived as implicit, if not explicit, recommendations (Gregg 1995: 17). Once women ask for the procedures, doctors continue to offer and perform them, and the resulting consumer demand for their use contributes to the development of a medical standard of care. This cycle continues in such a way that doctors must conform to the standard of care and women continue to expect and request the tests (Gregg 1995: 18). In this way, the standards of American childbirth have been geared towards those of technological and medical innovations. Decisions during the child birthing process are influenced, if not determined, by social expectations and feelings of responsibility. "Doctors feel bound to offer their patients the available technologies, and patients feel compelled to use them" (Gregg 1995: 18). In this way, technology has standardized childbirth to shape society's expectations of what a normal birth should involve. Through the

normalization of medical and technological interventions, technology has formed women's opinions about childbirth rather than women having their own opinions about technology's place in the process. The dominant feminist perspective on procreative technologies and choices suggest that any "choice" in the process is illusory because women's procreative choices are constructed and constrained by society's expectations (Gregg 1995: 16). In this view, "women who feel they have choices have internalized the dominant ideology and are experiencing a form of false consciousness" (Gregg 1995: 16). While some women may feel they have the power to choose whether or not to use technological interventions, it is a false perception constructed by the cultural norms of society and technology's influence on the birthing experience. As technology has gained such a dominant presence in the childbirth experience, it is intriguing to see how these interventions have affected society's idea of a natural childbirth. Is it possible to undergo a natural childbirth with the technological advances we have today or has our concept of natural childbirth changed to cater to the demands of technology?

Technology's Influence on the Natural Process

In American society there is a constructed dichotomy between natural and medical childbirth. This boundary has been culturally created by society to define what is "natural" and what is included in medical interventions. According to the *Listening to Mothers* report, 59 percent of women agreed with the statement, "Giving birth is a process that should not be interfered with unless medically necessary," while 16 percent disagreed (Declerqc et al. 2013: 16). While interviewing mothers, I asked if they thought the advances in technology and medicine take away from or change the childbirth process. Agreeing with the above statement,

Lily believes that the medicalization of childbirth can take away from the natural process, but she is grateful for the technological advances available during childbirth. Lily comments:

Well in a way yes it does take away from the natural process, but also, I am a developmental economist and I've worked in sub-Saharan Africa before and I know that the natural process is a very risky one. So yes many women deliver successfully without technology, but the maternal-infant mortality rate in countries that don't have the technology is very high. I personally feel comfortable knowing that there are different technologies out there that we've developed that can deal with different bad situations that can happen.

Although Lily believes the use of advanced interventions take away from the natural feeling of childbirth, she later went on to say, "they've tried to correct for the impersonal nature of the technology, especially when you have to go in for a c-section and I just thought that was really great." This statement strongly illustrates the effects of technology on the childbirth experience, however, as pointed out, the technology is available to help in emergency situations and this is why so many people value its presence in the birthing process. As Davis-Floyd and Davis (1996: 238) note, "being hooked up to some of the highest technologies society has invented gives many American women the feeling that they are being well taken care of, that they are safe. A reassuring cultural order is imposed on the otherwise frightening and potentially out of control chaos of nature." However, one point Lily touches on is the disconnection that can be felt by some mothers during labor because of the medical interventions. One example Lily gave of this was when she stated, "I couldn't hold the baby at first; when all that stuff is getting out of your system you don't actually have any control over your limbs or anything." Not only do medical interventions such as drugs take part in this feeling of disconnect, but uses of technology can play a large in taking away from the intimate feeling of childbirth. While agreeing with the notion that medical interventions can take away from the natural experience of childbirth, Marie is willing to lose that experience if she is able to feel more comfortable. Marie asserts:

Certainly your body was made to do this so I guess the most natural way is to just do it, maybe with someone who has been around the block a few times and probably without medication or drugs. But again, I feel like if it's available to me to feel less discomfort then I'm okay with losing that connection.

While there is a loss of the natural feeling of childbirth, our society has made it acceptable to rid oneself of this experience based on the expectation that childbirth is too painful and relieving oneself of this pain can hold more value than undergoing the natural experience. The cultural constructs around childbirth have changed throughout history to view medical interventions as the normal process of childbirth and this is reflected in the women's responses that I interviewed.

While technological resources are used throughout a pregnancy to assist in emergencies or detecting problems with either the fetus or the mother, some feel that the use of these technologies treat pregnancy as a pathological event rather than a natural one. Anna expresses this commonly held view that childbirth is increasingly being treated like an illness. Anna comments:

I think you need care to monitor for the things that could come up, but I think that the more intrusive that the care becomes, the more the birth is treated like a very, and of course it is a medical event, but it's treated like an *illness* almost, where it is a natural event that your body is made to handle, and granted it is a big event and things can go wrong and you should obviously be on top of those in the beginning and getting some kind of care. But yes I think it can take away from the natural experience.

Moving into the early twenty-first century, there has been a desire among some groups for the demedicalization of childbirth, for women's increased control over the experience, and for natural childbirth in a homelike setting, such as a birthing room or even at home (Mander and Murphy-Lawless 2013: 54). For many women who want to demedicalize the childbirth experience, this is why they prefer to use a midwife over an obstetrician during the birthing process. In practice, "midwives see pregnancy and birth as normal processes, as part of the life cycle, not as illnesses or disease states" (Michaelson 1988: 130). An important question that

arises from this issue becomes the possibility of being able to balance the natural process that is childbirth with the medical and technological advances that ensure the success of many deliveries. Michelle provides an interesting view on this issue, displaying both sides of the debate:

I think it is a natural process in that women do get pregnant naturally, biologically. But the reality is, things go wrong. This was something that was really informed by my miscarriages, just because it happens naturally or successfully in most cases, I guess I would say your body is a natural organic organism but it breaks. So while I understand the inclination not to medicalize it too much, I remember in my first childbirth class they said something along those lines which I found very compelling which is, doctors are use to fixing things and pregnancy is something that in most cases there is nothing to be fixed, it goes the way it is suppose to, so sometimes that leads to tensions of doctors trying to fix problems that don't need to be fixed. And I totally agree with that and yet things do go wrong, things do get broken and so I think sometimes this idea of it's all natural is actually a little troubling, for a number of reasons. For one, I think it makes women who struggle, it makes their suffering more profound. So in that way I have to admit I'm a little bit skeptical of saying it's just natural and I guess I have some level of appreciation, I have a lot of appreciation for technology and for what medicine can do if there is a problem, so then the question becomes how can you balance the two things, right?

While the definition of natural births varies among women and the American population, there will always be medical interventions in the childbirth process, but as it has been illustrated here, it is important to find a balance where the constructed idea of nature can still be incorporated into

the childbearing process.

Choosing the Right Method

The variation seen in labor methods used by women is a result of the values and philosophies mothers hold about childbirth. One question that arose frequently during interviews with mothers was the debate of whether or not one birthing method was better than another. To fully understand the responses to this question, it helps to hear about each mother's birth plan. Anna, who had a natural birth, knew beforehand she did not want to use pain medication. Anna

describes this experience:

We did draw up a birth plan beforehand where we just stated, I don't want any pitocin, I don't want any assistance, any epidural, just the basic things. It was something I printed off, it was just a multiple choice thing it wasn't an extensive thing where I wrote down all my hopes and dreams or anything, just some basic questions as a guideline. The nurses and the OB did all read it and everything. But basically I decided I'm just going to go in and see how it goes.

Michelle, who plans to use an epidural during her delivery, does not believe in having a birth

plan as it leaves room for error. Michelle explains:

I didn't have a plan last time and especially not this time, there's so much of it that is beyond your control so for me to plan it is almost a set up for things to not go according to plan. My sort of philosophy and orientation about childbirth is that you prepare as much as you can for a lot of different outcomes and hopefully you have a practitioner that you trust and hopefully you have a lot of support and a lot of knowledge, but at the end of the day, for me personally, a plan, it just doesn't really work that way. The baby has its own plan.

After her first birthing experience, Lily aggress that the best plan is no plan. Lily notes:

It's such a random process so this time we don't have a birth plan, basically, because whatever it was we were planning on last time that totally didn't happen so we just feel like there are so many different things that can happen, you just have to take every moment as it comes and try to deal with it.

Looking at women's birth plans help to understand the background of why they believe one

method may be better than another. For example, as Michelle describes, the best birthing method

is dependent on the individual and their beliefs. Michelle explains:

I do think it is dependent on the person. I guess my simplest answer is to trust women and their partners to make the best decisions for them because I do think there is a range of factors at play. If you have a woman for whom the hospital setting creates significant anxiety or for whom they're just much more comfortable somewhere else, then it's not my place to tell them that that's wrong but to my mind, I would want those resources available. On the other hand, there are some women who strongly believe one method is the best option for childbearing. Anna, for example, believes that natural childbirth ensures the best outcome of labor. Anna comments:

I think that as much as a cesarean birth can ensure that the baby is perfectly healthy and the mom is fine, you're still slicing a woman open and subsequent births become riskier and riskier. So to be, especially on your first child, to be cut open, I would just think that would be a tragedy in my life. So I absolutely think there are determents that may be more far reaching than people realize. I think that once you start interfering with nature it's just the domino effect. You'll start inferring with the next thing and the next thing ...our bodies were made to work a certain way for a reason and it's all like the butterfly effect, it's all linked together. So I absolutely think that medical interventions can definitely be more detrimental and *the natural way is the better way to do it*.

Women's birthing plans and delivery decisions result from individual values about medical care, pain management, what constitutes the natural experience, birthing facilities, and health provider preference, in addition to the pressures put on women by society. As it can be seen, there are many cultural influences such as the norms American culture has created around childbirth and technological innovations that also factor into a mother's decisions about birthing methods.

Conclusion

Hearing first-hand experiences of childbirth from mothers provides a unique perspective on the issues of maternity that arise. While these interviews do not provide general opinions for all women, there are various conclusions that can be inferred about the medical and cultural reasons behind preferred birthing methods. The majority of the support for delivering in hospitals and using drugs for pain management has been brought about by the cultural customs society has created around maternity throughout history. As illustrated, there is a fear built around childbirth because of the pain endured while in labor, as well as the potential risks that may occur during delivery. For this reason, many women feel the need to deliver in hospitals where pain medication will be available and all technological resources are accessible for the just in case scenarios. In addition, the American dependency on technology and trust in the medical system have created negative views surrounding the notion of natural childbirth; sometimes suggesting that the midwife model is dangerous and risky, therefore pushing women towards the medical model of childbirth. In this same way, medical and technological interventions have become routine procedures in the American course of childbirth; this coupled with the fear surrounding childbirth has created great ambivalence towards alternative methods of childbirth. On the other hand, some women believe that all women can handle the pain, in fact they were made to do this, and therefore using drugs during childbirth takes away from the natural experience. For this reason, many women choose to delivery naturally, without pain medication, using as little medical interventions as possible, employing a midwife and sometimes even at home.

Looking back at the history of when male physicians first began delivering babies, taking over the role of female midwives, it can be seen that this is when society began to construct the ideas around childbirth that we still see today. American society has been telling women since the 18th century that the traditional method of childbirth is to deliver in a hospital with a medical practitioner. These cultural standards create tensions with those whom believe medical interventions should not be a part of the child birthing process. As our society progresses and technology advances, the question now becomes, is it possible to balance the natural childbirth experience with medical interventions?

Conclusion

Final Analysis

"The best method? There isn't just one, it depends on the woman and her situation. My simplest answer is to trust women and their partners to make the best decisions for them because I do think there is a range of factors at play." As illustrated by second time mother, Michelle, various factors influence a mother's decision when choosing her approach to childbirth. The decisions that go into the childbirth process that I chose to investigate included: opinions on prenatal care, the type of health care provider a woman chooses to use, picking the place of delivery, views on technological and medical interventions, and outlooks on natural childbirth. It is clear from a historical standpoint that the transition from the traditional home birth with a midwife to the modern day hospital birth by a physician has come about from the maledominated medical field and the introduction of technological developments. Today there is a strong cultural expectation for a woman to give birth in a hospital with a physician, using the medical and technological resources available to her, including drugs for pain relief and induction, as well as medical instruments to assist the physician in the delivery. This practice of childbirth has become the routine process in the United States; this coupled with the fear surrounding the birthing process has created great ambivalence towards alternative methods of childbirth, such as using a midwife or not using such interventions. The philosophies midwives advocate are not mainstream in our society, therefore women choosing to use midwives goes against cultural norms. This also requires that people think outside of the box when approaching childbirth.

The childbirth experience a woman will have is dependent on her mindset. Women can choose to construct their approach to the birthing experience from the beginning of their pregnancy, in hopes that their experience along the way will not conform to their expectations. In some cases the system—experiences from prenatal care and interventions, different approaches to childbirth, the people around them—changes their mindset. "It depends on the mother's mindset and the amount of support she gets and that kind of dictates the kind of birth experience she has. But I think that if you're not already decided how it's going to be for you, then having all that serious medial care all the way through forms your mindset," Anna explained. A woman's mindset determines her childbirth experience; it determines the choices she will make throughout her pregnancy, labor, and delivery. Do societal pressures leave room for a woman to decide the course of her own pregnancy and childbirth?

I found that there is a constructed paradox of choice created by the institutional pressures of childbirth and an individual's choice. The systematic decisions of childbirth come from the medical model of childbirth and the principles it encourages. The cultural expectation to uphold the medical model, to trust the system, relying on medicine and technology, contradicts not only the holistic model of childbirth, but also an individual's place in their own decision-making process. When the system chooses for a woman her individual values and expectations of childbirth can be lost. This paradox between a woman deciding what she does and does not want to include in her childbirth experience and the societal expectations of what childbirth should look like plays greatly into the notion of technology taking away from a childbirth experience where women are in control.

In a society dependent on science and technology, we rely on measurable outcomes to tell people what type of childbirth method is the best to use. Researchers gather data on cesarean rates compared to vaginal delivery rates, which include infant mortality rate, maternal mortality rate, rate of infection, the number of babies born with jaundice and respiratory problems, the rate of hemorrhage and uterine rupture in mothers, and many more obstetric outcomes. This is quantifiable data; this data allows medical professionals and the public to associate a procedure with rate of success, to match a graph with different outcomes, to look at statistics. Does the scientific approach employed by our society allow the childbirth experience to be measured? Can one quantify the emotions felt by a mother during a cesarean section with medical interventions as opposed to a vaginal birth with minimal interventions? Our society is conceptually grounded in the technocratic model of childbirth, yet women want to experience childbirth in all of its entirety; this presents a fundamental challenge for science.

The experience a woman undergoes during childbirth is significantly different depending on the method she uses. The biological response to a vaginal delivery is substantially different to that of a cesarean. As told by the women interviewed, there is a great sense of empowerment felt when a woman physically pushes her child through the birth canal, while being able to feel all of the aches and pain that she will undergo, she is intuitively in tune with her body, connected to her child and herself. Some women refer to a vaginal, none-interventional delivery as a "transformative" experience. When delivering by cesarean or when using pain-relieving medication, the physical empowerment can be lost. As Anna explains, "Epidurals, they make you numb, you know you're not in tune with what is going on. So with epidurals you have to have coached births, which is where the doctor is telling you when to push because you can't feel it so you can't feel when to push or what is going on at all." Some do disagree with this, stating that experiencing childbirth is about the sense of pride a woman may feel. Marie, for example, stated:

I can see where there would be this kind of conquering mentality or this idea that you've succeed at doing something you were always meant to do. And probably there is, your body has this natural reaction after you've given birth where you feel much better if you haven't taken medication versus if you have taken it. I think everything would happen more beautifully and seamlessly but I just can't justify for myself, knowing my pain tolerance and I just know that I can't fully appreciate what I might feel like if I did it naturally. I guess I'm willing to give up what I consider sort of heroism or this quest for bravery. I more see it as being prideful. For me it would just be prideful to not take the drugs.

In addition to possibly losing this sense of empowerment, the emotional and physical connection

to a woman's baby can be lost after a cesarean due to the recovery process. As Lily describes her

experience:

First of all I couldn't get up to get to the baby just because I was recovery from the surgery. I couldn't even hold the baby at first; when all that stuff is getting out of your system you don't actually have any control over your limbs or anything. They brought [the baby] to us and I wanted to hold her but they had to help me because I just couldn't, I didn't have any control over my arms and was shivering uncontrollably.

The question must be raised, how can women choose the best birthing method when we cannot quantify the emotional outcomes of different experiences? Information and experiences of vaginal, non-interventional deliveries are marginal to mainstream medical practices. This marginality has significant consequences for the range of choices and possibilities evaluated by women. It is necessary to look at the other factors influencing the birthing experience other than statistical outcomes for this reason.

Future Outlooks

Looking ahead to the future of obstetric care it will be interesting to witness the changes in women's approaches to childbirth, as well as overall health care modifications. While the United States has a significantly high rate of cesareans, health care providers are progressively recognizing that it is time to change their methods of practice. This includes using less medical and technological interventions as they have been proven to lead to higher rates of cesareans performed. This also includes the collaboration of obstetrician-gynecologists and midwives in their practices, combining the two approaches to childbirth to possibly balance the natural childbirth experience with medical interventions. Through the midwifery philosophy of childbirth and the physician's expertise for emergency situations, cultural expectations of childbirth could change to promote the values of childbirth with little or no medicalization while still providing necessary resources. In order for collaborative care to ensure the best chance for women and their partners to make well-considered decisions, women need to be fully informed about all of their options regarding pregnancy, birth, and postpartum care, including the possible outcomes of their decisions.

In order for midwives to be functional and effective members of the interdisciplinary health care team, they must be fully integrated into systems of care. Unlike other Western countries where midwifery is the central pillar in maternity care; the situation is not ideal in the United States. There is significant work that has yet to be done for midwifery to be accepted and well integrated into the American health care system and for the collaborative care model to work optimally. Fortunately, the changing health care system will work to support this. With the implementation of the Affordable Care Act a larger range of clientele will be able to increasingly employ midwives. Currently, the typical patients calling upon midwives are wealthy, white, well-educated women. This is generally the case because the right information for not only finding a midwife, but also gathering the knowledge around midwifery, is difficult to acquire. Information about midwifery services and other alternative methods to the medical model of childbirth is obtainable but typically only those who have the available resources are able to find it. For example, MANA provides statistics on homebirths and information about the midwifery model on their website, but this source is not well-known to the general public. In addition, most private insurers do not cover midwives; meaning patients must pay a large portion of the cost of

these services out-of-pocket, also limiting the clientele to higher socioeconomic classes. However, the restricted clientele of midwives will begin to change with the development of the Affordable Care Act. Thanks to the Affordable Care Act, midwives will begin to see a larger variety of patients as Medicaid covers their services. The Affordable Care Act expands Medicaid to all non-Medicare eligible individuals under age 65 (children, pregnant women, parents, and adults without dependent children) with incomes up to 133 percent of the Federal Poverty Level based on modified adjusted gross income (Kaiser 2013). Typically, only very low-income women who are pregnant, have children living at home, or who have a disability have been able to qualify for the program. In 2012, Medicaid covered 12 percent of women in the United States (Kaiser 2013). Currently Medicaid covers a portion of the cost of midwifery services in all 50 states. By expanding Medicaid to include coverage of midwifery services as well as extending eligibility, more women will have access to midwives. Medicaid finances nearly half of all births in the U.S, this means that midwives could attend half of all of the births in the U.S and their fees would be paid for. In 2012, 7.6 percent of births were attended by certified nurse-midwives, if this trend continues it will bring the U.S more in line with the rest of the world, giving midwives a central role in prenatal care and birth. One of the greatest benefits of this change will be a lower rate of infant mortality and cesarean sections. As discussed previously, the infant mortality rate of the U.S is significantly higher than other industrialized nations. The greatest contributing factors to infant mortality are the racial and socioeconomic disparities in the U.S, which hinders health care access for the lower and middle class, African Americans in particular. The expansion of Medicaid will help to reach the groups with the highest infant mortality rates and low incomes such that they will have access to better health care services, including midwifery practices. In this process, the infant mortality rates will begin to decline. In addition, with the use

of the holistic approach to childbirth in combination with the changing mindsets of physicians, the cesarean rate will also begin to decline. Overall, with increased public awareness of the benefits of midwifery services, the philosophy of the holistic model, the consequences of rising cesarean rates, and the expansions of the Affordable Care Act, the United States is going to begin to see various changes in the practices of obstetric care moving toward the direction of midwives. Given that other countries have lower costs and better outcomes, it would be a positive thing for the U.S to start changing their views.

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