

Seeking a Balance

Written by Cathy Daub, P.T.

Tuesday, 01 December 2015 08:31 - Last Updated Friday, 15 September 2017 07:53

The Biomedical and Systems Approaches to Labor and Birth

“My pregnancy was normal and I went to the hospital to give birth. They kept offering me pain relief, and I ended up with an epidural and complications that led to a cesarean that separated me from my baby. I’m still crying and trying to figure out what went so wrong!”

This testimonial from a new mother is an example of an imbalance between the biomedical and systems approaches to birth. The predominant model used by physicians is the biomedical model, which is based on reductionism, the attempt to take apart all the components of a problem to find its roots and to explain biological processes using the same explanations used to interpret inanimate matter. It does not take into account the role of social factors or individual subjectivity.



BIRTH

SEEKING A BALANCE

The biomedical and systems approaches to labor and birth

By Cathy Daub, P.T.

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This testimonial from a new mother is an example of an imbalance between the biomedical and systems approaches to birth. The predominant model used by physicians is the biomedical model, which is based on reductionism, the attempt to take apart all the components of a problem to find its roots and to explain biological processes using the same explanations used to interpret inanimate matter. It does not take into account the role of social factors or individual subjectivity.

It is well documented that there are many very effective nonpharmacological nonster measures that are

understood in birth. These include water immersion, pelvic positioning, and the presence of a doula, to name a few. I recently gave a presentation about labor and delivery to nurses and doctors at a large local hospital. The title was “Supporting Women in Labor Without Epidurals.” The hospital has a 41 percent cesarean rate, many nonpharmacological ways of coping with labor, proven to be very effective, are not used there.

In contrast, the systems model of medicine looks at how all the parts come together to form a whole. This model recognizes that the ways in which the body performs, or doesn’t, can be better understood by taking into account the larger systems of the community, the family, interpersonal relationships, and individual responses to stress. This model acknowledges that every aspect of a woman’s world and environment is constantly and simultaneously affecting her physiology. These include the presence of the doctor and his or her staff, the doctor’s expectations, machines and procedures used to monitor the fetal blood pH and gas balance throughout labor, fetal blood pH, the fluids in the environment, and the personal characteristics of women. Midwives and doctors often use different models to explain and understand birth. A systems model is more suited for midwives.

While both the biomedical and systems models of care seek a healthy mother and baby with minimal vital signs and the baby feeding, the systems model raises other important questions:

1. How do epidurals and cesareans affect hormone production, mother-infant bonding/relationships, breastfeeding, fetal brain development/maturity and prevention?
2. Since having a cesarean experience, what learning does a woman lose when she chooses to numb herself to labor pain?
3. What effects do anesthetics and analgesics have on a baby’s hormone production and the overall physical and behavioral properties of newborns?

Did you know that the majority of trends in birth today are worrisome, and these include cesarean births as well as the excessive use of medical procedures and obstetric drugs. Not other trends promote change for the better: fewer epidurals, fewer formula samples being given out to women wishing to breastfeed, and more rooming-in of mothers and babies.

The U.S. cesarean rate of 30.1 percent of all live births in 2014 seems to have actually increased from 28.3 percent in 2010, but is still high above the World Health Organization’s recommended rate of 10 percent. This increase of C-sections continues to cause an excess of health care problems to women and babies in a largely healthy population, according to the Center for Medicine II Survey of May 9, 2015. Six out of ten women today with a singleton birth received an epidural or spinal anesthesia for pain relief in labor, according to the US Centers for Disease Control National Center for

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It is well documented that there are many very effective nonpharmacological comfort measures that are underutilized in birth. These include water immersion, pelvic positioning, and the presence of a doula, to name a few. I recently gave a presentation about labor and delivery to nurses and doctors at a large local hospital.

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While both the biomedical and systems models of care seek a healthy mother and baby with normal vital signs and the baby feeding, the systems model raises other important questions:

1.

How do epidurals and cesareans affect hormone production, mother-infant bonding relationships, breastfeeding, fetal brain development/maturity and parenting?

2.

Since learning comes from experience, what learning does a woman lose when she chooses to numb herself to labor pain?

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3.

What effects do anesthetics and analgesics have on a baby's hormone production and the overall physical and behavioral properties of hormones?

I believe that the majority of trends in birth today are worrisome, and these include societal beliefs as well as the excessive use of medical procedures and obstetric drugs. Yet other trends promise change for the better: fewer episiotomies, fewer formula samples being given out to women wishing to breastfeed, and more rooming-in of mothers and babies.

The U.S. cesarean rate of 32.2 percent of all live births in 2014 seems to have somewhat plateaued down from 32.9 percent in 2009, but is still high above the World Health Organization's recommended rate of 15 percent. This overuse of C-sections continues to cause an excess of healthcare problems to women and babies in a largely healthy population, according to the Listening to Mothers III Survey of May 9, 2013. Six out of ten women today with a singleton birth received an epidural or spinal anesthesia for pain relief in labor, according to the U.S. Centers for Disease Control National Center for Health Statistics Report. Because all medical procedures and obstetrical drugs have an element of risk, this means too many low-risk pregnant women are entering the hospital to give birth and are leaving higher risk.

The vaginal birth after cesarean (VBAC) rate remains much too low. After reaching a high in 1996 of 28.3 percent of women who previously delivered by cesarean, the national VBAC rate was reported at 10.6 percent in 2013.

An even greater concern is four cultural shifts in beliefs about birth that have taken root.

Many women now believe that a cesarean is either safer than or as safe as a vaginal birth and avoids potential damage to the pelvic floor musculature. In most instances, neither of these is true. They also believe it is advantageous to set a definite date in which to give birth so that life events can be planned around that date. What is predictable feels more comfortable to them.

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Women believe they can have a baby without having to feel labor contractions if they don't want to. As a result, we now have obstetrical nurses and doctors who may have never seen a normal, physiologic birth without medical intervention. This is a contributing factor to the high cesarean rate as well.

Many women believe that technology is a normal part of giving birth. Their experience of birth then becomes a mechanical memory. Women are depending on others to get their babies out. Learning only comes through experience, and when women numb themselves to the experience of labor and birth, they lose the learning that birth imparts. Birth offers women a peak experience, a moment of their lives they will never forget, empowering and transformative in nature.

I believe that the pendulum of birth has swung to the end of its range; it will have to swing back, because nature must prevail. We cannot presume that mankind is smarter than nature because there is too much we don't understand about the marvels of the human body.

One sign of the pendulum swinging back is the growing awareness of womb ecology, also known as primal health, pioneered by Michel Odent, M.D. Odent identifies primal health as the period of time from conception to the end of the first year of life. Data from extensive clinical and experimental studies indicates that early life events play a powerful role in influencing later susceptibility to certain chronic diseases. These diseases span all medical fields, including heart disease, stroke, obesity, metabolic syndrome and type 2 diabetes mellitus.

In addition, breastfeeding with mother-baby skin-to-skin contact in the hours after birth is crucial for fetal limbic brain development. Even premature babies function better when laid against their mother's skin than when placed into an incubator.

Another sign of the pendulum swinging back is the current trend of more women becoming midwives. Midwives have a more natural approach to birth than obstetricians, and can work in hospitals as certified nurse midwives (CNMs) or at home as certified professional midwives (CPMs). They believe that birth is a normal and natural event, and their birth practices are reflective of this.

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In its reductionist view, the biomedical model encourages the development of new products to improve labor and birth. Take for example a relatively new product called the EPI-NO. It claims to reduce the risk of tearing and episiotomy, and to help condition the pelvic floor muscles before and after pregnancy. The kit comes with a contoured silicone balloon, a hand pump, a pressure display, an air-release valve and a flexible plastic tube. The balloon is inserted two-thirds of the way into the vagina and then gradually inflated from one training session to the next, each lasting 20 minutes.

The producers claim that the perineum normally achieves 8.5 cm to 10 cm over three to four weeks, and if 8.5 cm is achieved, the extra 1.5 cm will come when the head is crowning. This sounds attractive to women tired of being pregnant, but isn't it just another way of trying to rush birth? I personally wouldn't want to be walking around with a dilated perineum weeks before giving birth, and before it is ready to dilate itself. Furthermore, the hormonal state of a pregnant woman's body is different three to four weeks before labor as opposed to the time of crowning. I believe that in labor, as long as the perineum is kept warm to ensure good blood supply and hard pushing is avoided, that it will open for birth, just as it is supposed to.

At first glance, the biomedical model may seem to be working, making many women and their caregivers happy. Women can give birth without feeling strong labor contractions. They can plan when they want to give birth and doctors don't have to wait around. The use of medical procedures and obstetric drugs provides economic and financial incentives for the hospital. Legal consequences are minimized because a cesarean is the ultimate intervention; as far as the court is concerned there is nothing more that could have been done.

But balance is the key because we need both the biomedical and systems models of care in birth. Birthing families need better childbirth preparation so they can become informed to make wiser decisions, avoiding the routine uses of technology and obstetric drugs in birth, and also to learn when they would be necessary to ensure a healthy mother and baby. It is equally important to consider the role of other factors that might be keeping a labor from progressing, such as fear of pain, becoming a mother, and the sacrifices that will need to be made in the home and workplace.

Giving birth requires a woman to open her body completely and let go of all inhibitions. In order to do so, she needs to feel safe to let down her defenses. She is entirely vulnerable to the energies in the room. She needs to be in a place where she feels safe. I would like to see pregnant women be able to choose their safe place for giving birth and feel supported by their caregivers wherever that place may be.

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It takes only one concerned look from a doctor to cause her to draw inward in a protective response. Midwife Ina May Gaskin says that even one negative word to a woman in labor can have the effect of undilating her cervix. She says, "I have never noticed anyone's cervix remain tight and unyielding while speaking loving and positive words." A woman in labor must have full trust and faith in her body's ability to give birth and allow it to be her guide.

Good, quality childbirth preparation beginning early in pregnancy is needed now more than ever. Though some knowledge of birth is required, it is emotional preparation that will be the most useful to a woman in labor, because labor is an emotional, sacred event. For example, learning what things can increase oxytocin production to help labor progress is essential in any childbirth preparation class. If the entire birth team could keep the birthing environment full of love and compassion, the birthing woman could feel safe to let go and give birth. They would not keep asking her if she wants pain relief; they would affirm her innate power and wisdom in giving birth. Avoiding rational questions such as "Was that contraction stronger than the last one?" is a way to help her in her primal brain that already knows how to give birth. Women need to believe that they are born with the knowledge of how to give birth and that birth is instinctive, and birth teams need to know how to support them in this truth.

Although I am worried about the current trends in birth, I am also optimistic. As more women are training to become midwives and more midwives are being employed by hospitals and attending home births, and as good, quality childbirth preparation reaches more pregnant women and their families early in pregnancy, I hope that surely we will begin to see change toward a better balance in the biomedical and systems approaches to birth. Birth is and always will be a sacred event, a miracle—one that changes a woman's life and our lives forever.

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