Watching Our Words

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Abstract: The majority of practitioners in the field of pre and perinatal psychology would likely agree that in order for society to change prevalent negative beliefs about pregnancy and childbirth there needs to a paradigm shift in the use of negative language as it refers to pregnancy and childbirth. This article proposes that watching our words can raise awareness of how the language we choose perpetuates society's paradigms or empowers women to give birth more naturally and babies to be welcomed more gently.

Keywords: prenatal and perinatal psychology, language, social paradigms

Michel Odent (2016), expounding on Midwifery Tomorrow in the summer issue of Midwifery Today states,

> Until now, the basis of our cultural conditioning is that a woman lacks the power to give birth without some kind of cultural interference. This is illustrated by a disempowering vocabulary focusing on the active role of a person other than mother and baby—the two obligatory actors in the process of parturition. The keywords are helping, guiding, controlling, supporting, coaching (natural childbirth groups), labor management (medical circles), etc. (p. 16).

There are other commonplace expressions in our vocabularies that disempower women—words which women use themselves as they contemplate giving birth. This article explores the impact of the words we use regarding pregnancy and childbirth.

Background

We in the field of Prenatal and Perinatal Psychology have been calling for a paradigm shift in the realms of pregnancy, childbirth, and parenting for decades (Chamberlain, 1999; Odent, 2014; Verny & Weintraub, 2002). Nonetheless, the infant mortality rate (IMR; number of deaths per 1,000 live births) in the U.S. remains higher than other industrialized countries (MacDorman, Mathews, Mohangoo, & Zeitlin, 2014); the maternal mortality rate (MMR; number of deaths per 10,000 live births) in the U.S. is the highest among developed countries (Agrawal, 2015); the rate of births occurring in hospitals remains over 98 percent (MacDorman, Mathews, & Declercq, 2014); the Cesarean section rate accounts for one third of all births (Hamilton, Martin, Osterman, Curtin, & Mathews, 2015); and interventions, both pharmaceutical and instrumental (Osterman, J. K., & Martin, J. A.,

2011), are utilized with impunity. Drugs and surgery, the methods of a one-hundred-year old medical paradigm (Dossey, 1999), are still being applied while infant and maternal deaths occur more frequently in the United States than they do elsewhere in the industrialized world. There may be extenuating factors, such as the ability to sustain and prolong high risk pregnancies and the average maternal age in different countries.

Considering infant mortality, "an important indicator of the health of a nation" (MacDorman, Hooyert, & Mathews, 2013), the infant mortality rate actually declined from 6.91 to 6.05 per thousand live births between 2005 and 2011. However, in 2014 *The Washington Post* labeled the United States' IMR "a national embarrassment" (Ingraham, 2014). According to *The World Fact Book* (2016-17) a Central Intelligence Agency report which estimated the IMR for 224 countries for 2015, the United States ranked, in descending order, 167th, yet still worse than 57 other countries. The United States falls behind Canada, Australia, Japan, Norway, Netherlands, Germany, France, Sweden and all other developed and wealthy nations. *NBC News* reporter Maggie Fox (2015) stated, "the U. S. infant mortality rate has stalled," in spite of the declines noted three years earlier.

The maternal mortality rate (MMR) "reflects the ability of women to secure maternal and other health care services" (National Women's Law Center, 2010). The Center for Disease Control and Prevention (CDC, 2015) reports:

> Since the Pregnancy Mortality Surveillance System was implemented, the number of reported pregnancy-related deaths in the United States steadily increased from 7.2 deaths per 100,000 live births in 1987 to a high of 17.8 deaths per 100,000 live births in 2009 and 2011. (www.cdc.com)

Robeznieks (2015), writing for *Modern Healthcare*, declares "U. S. women are more likely to die during childbirth than women in any other developed country, leading the U. S. to be ranked 33rd among 179 countries on the health and well-being of women and children."

Cesarean sections are the most commonly performed major surgery in the United States. The American College of Obstetricians and Gynecologists (ACOG) *Obstetric Care Consensus* (March 2014, reaffirmed 2016) notes that the increasing rate of Cesarean surgeries suggests that the procedure is being "overused" (p. 1). Included in this document is a table which reports maternal mortality risks. The mortality risk for women experiencing vaginal birth is 3.6 deaths per 100,000 births, while the risk for those experiencing Cesarean sections more than triples to 13.3 deaths per 100,000. While one third of birthing

women undergo these operations, this rate is an average across the nation; in many areas the rate is much higher. The World Health Organization (WHO) has recommended that the Cesarean section rate be 10 to 15%, a recommendation well known to those in the field of prenatal and perinatal psychology. Although a Cesarean section can be a life-saving procedure, “when the rate goes above 10%, there is no evidence that mortality rates improve” (WHO, 2016).

The medicalization of birth is so institutionalized that the paradigm shift pre- and perinatal psychologists seek seems like an unattainable dream—the institutions that gain from childbirth practices remaining the same see little benefit from a change to more natural practices. It might be wise to look deeply into the perpetuation of society’s propensity for controlling childbirth and profiting from practices that are disempowering to women and are more negatively impactful on babies than we ever imagined. Indeed, healthy pregnant women seem to *buy in* to being treated as patients, and being told when, where, and how to give birth. Nature unassisted has been declared “a poor obstetrician” (Tew, 1990, p. 35). Yet, as psychologists, we see the results of modern practices reflected in the state of the mental, emotional, and physical health of our children, not to mention the dismaying mortality statistics reported above.

Prenatal and perinatal psychology is a multidisciplinary field. We must look at economics, medicine, governmental policy-making, health insurance provisions, sociology, anatomy and physiology, and other contributing fields to see their impact on our childbirth perceptions, policies, and practices. On an individual basis we can examine the words we use as they represent our cultural consciousness regarding the way we welcome our newest citizens.

Beliefs about Birth

Sarah Uzelac (2016) noted in her *APPPAH Journal* article, Changing Beliefs and Attitudes about Birth in Preconceptive Women, “Due to pervasive influences childbirth is typically viewed by young women as a painful and frightening event requiring medical attention” (p. 256). It can be challenging to change those typical beliefs; they have been instilled over a lifetime and are continually reinforced by modern media. Yet, a paradigm shift in the realm of childbearing will require that women change their beliefs if they are to be truly empowered to realize their potential as the bearers of life. As PPN psychologists we can lead the way by paying attention to the language we use when speaking about childbirth.

What appears to be taken for granted by childbearing women themselves, as well those who serve them, are the very words used to

talk about childbirth. We have developed a language of childbirth that encompasses our beliefs to a degree that it is very difficult for a woman to question her doctor or even report to her friends that she is considering giving birth at home or in a birth center as this declaration frequently invites criticism (Highsmith, 2014). Virtually hidden in our everyday speech are telltale signs of a paradigm so deeply instilled that it defies change.

In the forward to *Childbirth and Authoritative Knowledge* (Rapp, 1997), Rayna Rapp credits Brigitte Jordan with coining the term *authoritative knowledge* which describes "how medical authority is socially constructed and maintained" (p. xi). Rapp states "authoritative knowledge isn't produced simply by access to complex technology, or an abstract will to hierarchy. It is a way of organizing power relations in a room that makes them seem literally unthinkable in any other way" (p. xii). Those power relations are reinforced and perpetuated by the childbirth language we use.

Words are the expressions of thoughts. Thoughts arise from beliefs. A belief "is a state of mind in which a person thinks something to be the case, with or without there being empirical evidence to prove that something is the case with factual certainty" (www.wikipedia.org). Synonyms for beliefs are attitudes, feelings, opinions, viewpoints, and perceptions. Simply because we use words to reflect our beliefs does not make those words or beliefs true. Nonetheless, thoughts are linked from the cortex, the thinking brain, to the limbic system, the emotional brain, and "each time these networks fire, it becomes easier for the circuits to be reactivated. That's how habits are formed" (Restak, 1991, p. 159). Our society has developed the habit of thinking and speaking about birth as a medical event, and, as Uzelac pointed out, one that is painful and frightening.

Cellular biologist Bruce Lipton expounds on beliefs in his book *The Biology of Belief* (2005). Dr. Lipton goes into great detail to inform readers about how beliefs arise. He explains that children "download the incredible volume of information they need to thrive in their environment" (p. 163). Indeed, they take in whatever they need to survive—to cope with the situations in which they are being raised. Children make sense out of their circumstances and normalize whatever they experience, believing that this (their situation) is the way life is.

Perhaps you can recall a moment when you discovered that not all families were like yours. One of my moments of revelation occurred at age eight when I visited the home of two friends whose parents sat at the kitchen table with neighborhood children and played games all afternoon. Really? Parents play games with their children? I had no idea! That didn't happen in my family. Parents were authority figures and children were to be seen and not heard. That belief is not unusual as it

predominates in our culture. It is foremost among the beliefs women have internalized, contributing to low self-esteem and inhibiting their abilities to express themselves.

This cultural conditioning begins while children's brains are developing. Children operate from the deeper and more primitive parts of their neuroanatomy, exhibiting first delta frequencies, then theta, followed by alpha and beta waves. These frequencies can be determined using neurofeedback technology (Laibow, 1999). This increase in faster brain wave states is a normal progression as the brain matures, as millions of connections between neurons develop, as myelinated pathways (those habitually traveled by our thoughts) are established and unused neurons are pruned away. The hemispheres of the cerebral cortex need to mature over time to perform the cognitive functions that adults can demonstrate.

At the slower brain wave states of delta and theta, those that predominate in utero and prevail until age six, children are in what Lipton (2005) calls a hypnogogic state. They are open and receptive just as a person under hypnosis would be. That means that children are taking in information, but they are not able to filter it, to determine if the ideas are true or not—perhaps more accurately, to determine if new information agrees with the mindset being established within their brains/minds. Parents have an extraordinary responsibility during these early years because children view them as the experts and believe what their in-house authority figures tell them. Parents are literally teaching their children what to think and feel. This is how prejudices are passed from one generation to the next. This is how beliefs arise—true or not.

It is relevant here to distinguish between brain and mind. Professor of psychiatry at the UCLA School of Medicine professor, Daniel Siegel (1999) proposed in his first book *The Developing Mind*, "the mind emerges from the activity of the brain, whose structure and function are directly shaped by interpersonal experience" (p. 1). Siegel (2010) later expanded this definition: "The human mind is a relational and embodied process that regulates the flow of energy and information" (p. 52). Therefore, the brain and mind are not the same. The brain is physical tissue while the mind is process.

Conditioning of the brain and mind begins in utero. Just to focus on the emergence of language among the exquisite complexity of fetal development, babies "remember sounds and vowels that they heard in the womb" (Newberg & Waldman, 2013, p. 6). Studies have shown that babies recognize songs and stories they heard in the womb (DeCasper & Fifer, 1980; Fridman, 2000; Hepper, 1991; Hepper & Shahidullah, 1994). Verny and Weintraub (2002) note that research supports the connection between the structure of the brain and language heard in utero. Babies exhibit their preferences in demonstrable ways to reveal that they

recognize and have already made meaning from what they have been exposed to while gestating. The family in which a baby is raised reinforces patterns already laid down during fetal development, as psychologist David Chamberlain (1988) proclaimed in the title of his first book, *Babies Remember Birth*.

So a pregnant woman could recall, perhaps implicitly, if not explicitly, what her birth was like, what she heard and felt while she was developing in her mother's womb, and what she learned about birth throughout her lifespan. She would carry implicit memories of any fears experienced during her own birth to the birth of her child. She would have in her memory bank all of the stories, words, images, and advice she had ever heard regarding what giving birth would be like. And do not ignore the impressions instilled by the media, which often portray birth as an agonizing, life-threatening event.

Often overlooked is the fear a baby might be experiencing during birth. Physician Robert Scaer (2001) describes the "threat facing the newborn infant" (p. 152) in modern hospitals:

> Infants born in the hospital face a cold, brilliantly bright, noisy environment associated with fetal monitoring, probes inserted in their scalp, metal forceps on their heads, the jabs of lancets in their heels, suction tubes in their noses, mouths, and tracheae, and caustic liquid instilled into their eyes. They also face separation and isolation from their mothers at the moment of birth, the most critical period for infant-maternal bonding, the period most important for early attunement. (p. 153)

The developing nervous system would create *imprints*, using Janov's (1983) term, of these disturbances which would leave "lifelong effects" (title page). The body would hold this trauma (Rothschild, 2000), while words would arise later to make sense of these events.

Dr. Scaer (2001) counters cultural beliefs that reflect the "medical philosophy of birth" (p. 153) with a view espoused by many prenatal and perinatal psychologists.

> Birth is an inherently natural process. It provides the earliest opportunity for enhancement of infant brain development required to provide resiliency in the face of threat through early maternal bonding. The brain at this stage of life is not at its most adaptable state; it is rather at its most vulnerable. Exposing the newborn to traumatic stress through thoughtless invasive and painful medical procedures is senseless and dangerous. Many child psychologists feel that the roots of societal violence, at least in part, relate to birth trauma. (p. 153)

The brain grows from the inside out; the hind brain, known as the reptilian system develops first, followed by the midbrain or limbic brain, and finally, the thick outer layers, comprised of the right and left hemispheres, are added (MacLean, 2002). This development is not complete until adulthood, but the fetal system that is online at birth is the reptilian brain, insuring survival by taking care of essential functions such as respiration, circulation, digestion, and elimination. During the first year of life a child is developing the limbic brain and learning from caregivers about emotions (Pearce, 1992). The limbic system is developing, bonding and attachment dynamics are being established, and children are learning whether the world is friendly—and if they are safe in it.

MacLean (2002) stated, "It seems that the ancient limbic system provides ingredients for the strong affective feelings of conviction that we attach to our beliefs, regardless of whether they are true or false!" All of a child's feelings, and thoughts about them, are reinforced as the hemispheres come online. Beliefs are instilled very early and persist relentlessly unless we begin to question them and consciously work to change them.

Lipton (2005) has pointed out that cells are conditioned to respond based on the environment. They subsequently remember how to respond to new situations in those conditioned ways. Thomas Verny (2014) has developed a convincing argument in support of cellular memory. In "What Cells Remember: Toward a Unified Field Theory of Memory," he cites extensive and diverse research supporting "the hypothesis that memory can also be stored in all the cells of the body, not just nerve cells" (p. 16). Even twelve years earlier Dr. Verny (2002) had stated in *Tomorrow's Baby: The Art and Science of Parenting from Conception through Infancy*, "From the moment of conception, the stories of our lives become encoded in the cells of our bodies and the neural circuits of our brains" (p. 168).

So, extrapolating from experts who tell us that we have memory in all of our cells, we can predict that when a woman enters a hospital, the locale selected by more than 98 percent of pregnant women (influenced greatly by their insurance companies who base their decisions on the fear of litigation), she brings all of the language in both images and words she has internalized into an energetic field (McTaggart, 2002) of thoughts, feelings, policies, and procedures. The entire milieu has been established to address women who, as Odent (2016) pointed out, are believed to need help, guidance, support, management, coaching and control. A woman's own thoughts, fostered by the very language she uses, predispose her to accept all of this with a sense of relief. After all,

as Odent (2016) implied, she has learned she cannot give birth without all that help.

The Language We Speak

Language allows us to communicate. According to Andrew Newberg, director of research at the Myrna Brind Center of Integrative Medicine at Thomas Jefferson University Hospital and Medical College, and co-author Mark Robert Waldman, Executive Communication and Neuro-Leadership instructor at Loyola Marymount University (2013),

> Without language, we would find ourselves living in a state of emotional chaos. Our brain has given us the potential to communicate in extraordinary ways, and the ways we choose to use our words can improve the neural functioning of the brain. In fact, a single word has the power to influence the expression of genes that regulate physical and emotional stress. (p. 5)

Choosing the right words can enhance our brain performance, improve our health, and, by the way, influence the changes we seek to initiate in society as a whole.

Neurologist Richard Restak (1991) explains that as we communicate "words trigger an emotional response" (p. 158). The amygdala within the limbic system of the brain are bombarded with stimuli, perceived as positive or negative, and become "encoded in our brain, where they provide underpinnings for memory and personality" (p. 158). Restak states, "On the basis of the subtle and sometimes not-so-subtle impact of certain words, each person literally lives in his or her own reality" (p. 159). The connotation of each word and phrase becomes relevant: if *delivery* implies a sense of helplessness, if *failure* precipitates a feeling of disappointment, if *nine months* suggests an end to a pregnancy too soon, we need to watch our words as their impact may be stimulating responses that are perpetuating an obsolete and damaging childbirth paradigm. Newberg and Waldman (2013) explain how our language-based thoughts become reality:

> In the center of our brain there's a walnut-shaped structure called the thalamus. It relays sensory information about the outside world to the other parts of the brain. When we imagine something, this information is also sent to the thalamus. Our research suggests that the thalamus treats these thoughts and fantasies in the same way it processes sounds, smells, tastes, images, and touch. And it doesn't distinguish between inner and outer realities. Thus, if you think you are safe, the rest of your brain assumes that you are safe. But if you

> ruminate on imaginary fears or self-doubt, your brain presumes that there may be a real threat in the outside world. Our language-based thoughts shape our consciousness, and consciousness shapes the reality we perceive. So choose your words wisely because they become as real as the ground on which you stand. (p. 57)

Let us consider a pregnant woman in labor entering a hospital. Many women are initially afraid. This is a common occurrence and is aptly named "white coat syndrome" (Mankad, n.d.). This syndrome causes an elevation of blood pressure and is experienced by an estimated 20 percent of the population, women and men alike, when going into a hospital or doctor's office. When experiencing fear, the body's autonomic nervous system responds with fight, flight, or freeze. This inherent reaction causes the laboring woman's body to contract, that is, her cervix will constrict. Like any normal mammal she will instinctively slow or stop labor until the danger she perceives—real or imagined—has passed. However, in hospitals this response is labeled *failure to progress*. Having just begun the process of giving birth, she is already a failure. She may think she is doing something wrong or is otherwise not performing the way medical staff thinks she should. It is no wonder that this perception initiates the proverbial cascade of interventions.

"'Failure to progress' is the number one reason for unplanned C-sections in the U.S." (Dekker, 2013). Women are told that they are not dilating fast enough, indeed, entry into some hospitals puts women on the clock, causing them to acquiesce to induction of labor with Pitocin followed by an epidural when the intense contractions stimulated by artificial oxytocin are too painful to endure. If those procedures do not result in the baby being born soon enough, a C-section will be performed.

Failure to progress is a label that is damaging to a woman's self-esteem and would be a good term to eliminate from our vocabularies. We need to adopt attitudes, words, and behaviors that encourage laboring women to relax, slow down, and know that labor will resume when they *and* their babies feel safe. We might ask, what's the rush? In most cases it is simply an institutional policy to promote efficiency. As Rikki Lake (2009) pointed out in her documentary film *The Business of Being Born*, birth is big business.

What Each of Us Can Do

It is a well-known aphorism that effective change begins at the grass roots level. In recent times President Barack Obama (1995) has said, "Change won't come from the top. Change will come from mobilized grassroots." We can mobilize to promote the paradigm shift we want to see by changing a few of the words and expressions we use when we talk

about childbirth. We are the agents of the profound change we wish to see.

Blessedly, beliefs, and the brains/minds that absorbed them, can change. Following the 1990s which became known as the decade of the brain, numerous books have been written presenting ways to change our brains/minds. In *Parenting from the Inside Out: How a Deeper Self-Understanding Can Help You Raise Children Who Thrive*, Siegel and Hartzell (2003) encourage increased self-awareness. Calling both hemispheres of the brain into service, the authors provide examples of healthy self-talk noting how the left brain's language capabilities can ease right brain anxiety. Introspection is a good first step to creating change as it causes us to hear what we are saying to ourselves. When we examine our self-talk, it leads to speaking to others more mindfully as well.

Lind-Kyle in *Heal Your Mind, Rewire Your Brain* optimistically states, "the process of changing the brain is quite simple" (2010, p. 91). Author Lind-Kyle describes how "our brains are constantly rewiring themselves in response to events in our lives" (back cover). She provides a guide to re-program our neural networks by accessing the brain wave states of beta, alpha, theta and delta. She focuses on beliefs we have internalized and suggests ways to release negative beliefs cognitively, emotionally, and behaviorally.

Train Your Mind, Change Your Brain by Sharon Begley (2007), is another book in this genre. In the forward endorsing Begley's work, the Dalai Lama comments:

> Buddhist practitioners familiar with the workings of the mind have long been aware that it can be transformed through training. What is exciting and new is that scientists have now shown that such mental training can also change the *brain*. (p. viii)

The Dalai Lama, known to be concerned about the welfare of the world's children, further recognizes a mother's role:

> Findings that show how a mother's expressions [words] of love and physical contact with her child can affect the triggering of different genetic responses tell us a great deal about the importance we need to give to bringing up [and bringing in] our children if we wish to create a healthy society. (p. viii)

Begley (2007), science columnist and a senior editor at *Newsweek* magazine, integrates science and spirituality in her approach to changing the brain. She departs from the old "doctrine of the unchanging human brain" (p. 7) stressing instead the scientific discovery of

neuroplasticity. She cites research showing that, indeed, change is possible. She notes that attention is "indispensable for neuroplasticity" (p. 158). Begley recommends meditation practices, merging Eastern Buddhist tradition with Western scientific knowledge.

Biologist Bruce Lipton (2005) has described how our beliefs are programmed at the cellular level. Asked what can be done to change undesirable programming, Lipton endorses PSYCH-K®, developed by his colleague Rob Williams. This is the modality that Lipton personally uses. PSYCH-K® is an energetic healing modality that can "rewrite the software of your subconscious mind" (www.brucelipton.com). It is "a unique and direct way to identify and change subconscious beliefs that perpetuate old habits and behaviors that you want to change" (https://www.psych-k.com/). Workshops are available to learn this technique, as there are for Thought Field Therapy (TFT), Emotional Freedom Technique (EFT), Tapas Acupressure Technique (TAT), and other energy modalities which promote natural healing and improved mental health.

Newberg and Waldman (2012), who wrote *Words Can Change Your Brain*, outline 12 strategies for conducting compassionate conversations. They thoroughly discuss thinking positively, supporting their recommendations with research. One such approach by Arntz and Weertman (1999) found that negative memories from childhood could be reinterpreted using "(i) imagery with rescripting and (ii) role play" (p. 715). Newberg and Waldman's comment on this study prompted them to say, "You can even undo negative memories from childhood by rescripting the event and imagining a different outcome or solution" (2012, p. 131).

The results of a remarkable new animal study from the University of Zurich demonstrate that "behaviors caused by traumatic experiences in early life are reversible" (Gapp, Bohacek, Grossmann, Brunner, Manuella, Nanni and Mansuy, 2016), substantiating the reversal of negative memories and ability to pass on the improvement to future generations. The University of Zurich news release of 22 June 2016 stated "positive environmental factors can correct behavioral alterations which would otherwise be transmitted to the offspring." Behavioral and psychological evidence is revealing that healing and positive changes are possible. Preventing negative beliefs in the first place is a worthy goal that research is showing can be assisted by eliminating negative beliefs and behaviors so they are not passed on to our progeny.

Newberg and Waldman (2012) stress that we each "need to consciously identify, then root out, the negative beliefs that have been unconsciously stored away in long-term memory" (p. 131). Getting to the root of our negative beliefs is a step in becoming the grass roots of a new childbirth paradigm. Newberg and Waldman provide assurance that,

"when we change our words, we change our brain, and when we change our brain, we change the way we relate to others" (p. 207)—and we model the changes we wish to see.

Martin Seligman (2006), professor of psychology and past president of the American Psychological Association, is known as the father of Positive Psychology. He has spent his career investigating learned helplessness and how we are conditioned to quit or believe that what we do will not make a difference. In *Learned Optimism: How to Change Your Mind and Your Life*, he counters the belief that we are powerless by revealing how we justify helplessness to ourselves and how we can replace this reasoning by cultivating an optimistic explanatory style. Speaking to each reader, Seligman advises finding "the word in your heart" (p. 16). Seligman says we each (metaphorically) carry a *yes* or a *no* in our hearts representing our tendency toward optimism or pessimism. A *yes* empowers and energizes us while a *no* disempowers and discourages us. With introspection, we can discover the word in our hearts and begin to assume greater personal control of our lives; we can overcome pessimism and become more flexibly optimistic.

Daniel Amen (1998), clinical neuroscientist, child and adolescent psychiatrist, and medical director of the Amen Clinic for Behavioral Medicine in Fairfield, California, wrote *Change Your Brain, Change Your Life*. His approach is physiological, relying on brain scans, single photon emission computerized tomography (SPECT), to study brains and identify treatment and resources that effectively improve the quality of his patients' lives. He notes that the "deep limbic system" (p. 37), which is developing in utero, "is power-packed with functions, all of which are critical for human behavior and survival" (p. 37).

Amen (1998) has serious concerns, saying, "Bonding and limbic problems often go hand in hand. One of the most fundamental bonds in the human universe is the mother-infant bond" (p. 44). This bonding can be disrupted by a mother's depression following birth, causing her to withdraw from her baby. Since Amen wrote his book, new research is revealing that interventions, particularly the administration of epidurals, are associated with increased risks of postpartum depression (Kendall-Tackett, Cong, & Hale, 2015). These researchers analyzed the data from a 253-item survey completed by 6,410 mothers within a year of giving birth and concluded, "Contrary to previous findings, epidurals are associated with lower breastfeeding rates and higher rates of postpartum depression" (p. 87).

The American Pregnancy Association (2015) reports on its website:

> Epidural anesthesia is the most popular method of pain relief during labor. Women request an epidural by name more than any other

> method of pain relief. More than 50% of women giving birth at hospitals use epidural anesthesia.

It is estimated that 10 to 15% of women experience postpartum depression, a significant enough portion to cause an evaluation of the frequent use of epidurals.

Amen suggests several processes to heal his patients' symptoms that arise from their deep limbic systems: first, he notes that "thoughts are real, and they have a real impact on you and how you behave" (p. 57). Thoughts often come in the form of words, phrases, and sentences. He stresses that negative thoughts release chemicals that increase tension, heart rates, and sweating, while positive thoughts release chemicals that cool the deep limbic region of the brain, slow heart rate and breathing, increase muscle relaxation, and decrease sweating. He suggests paying attention (essential for neuroplasticity) to all our thoughts and our bodily reactions to each thought to begin reinforcing those that are positive and diminish those that are negative. He admonishes, "Remember the deep limbic system is responsible for translating our emotional state into physical feelings of relaxation or tension" (p. 58). As a neuroscientist Amen states unequivocally, "every cell in your body is affected by every thought you have" (p. 58).

This knowledge is particularly important for pregnant women. Lipton (1995), in Early and Very Early Parenting: Maternal Emotions and Human Development, states:

> During pregnancy, the parent's perception of the environment is chemically communicated to the fetus through the placenta, the cellular barrier between the maternal and fetal blood. The mother's blood-borne emotional chemicals cross the placenta and effect the same target cells in the fetus as those in the parent. (www.birthpsychology.com)

This awareness could prompt discussions about paternal involvement, particularly since "1 in 4 children under the age of 18—a total of about 17.4 million—are being raised without a father" (https://singlemotherguide.com/single-mother-statistics/). Additionally, socioeconomic factors play a huge role as mothers, attempting to work and simultaneously raise children, experience stress which contributes to anxiety and depression. All of these factors will ultimately need to be addressed as they are societal issues. To begin, however, we can look at our individual responsibility—our own beliefs and thoughts, and the words we use to express them, which can bring about change in all of the related areas discussed here.

Resources for New Parents

There are many childbirth programs that encourage relaxation, mindfulness, self-regulation through breathing, and even raise the awareness of words that instill confidence (or fear). Find those programs that you favor to recommend to your clients. Calm Birth, the Bradley Method, Lamaze, and HypnoBirthing® are all excellent courses in countering anxiety and heightening relaxation. For example, in *Calm Birth: New Method for Conscious Childbirth*, author Robert Bruce Newman (2005) teaches a whole new vocabulary to pregnant women. He introduces Eastern Mediation principles and practices while honoring a "woman's need for privacy, low light, spontaneous movement, and freedom to vocalize undisturbed in labor" (p. 92). The Bradley Method is a 12-week course for couples teaching husband-coached natural childbirth. Positive communication is emphasized (www.bradleybirth.com). "Lamaze education helps women to gain confidence in their bodies, to trust their innate ability to give birth and to make informed decisions about pregnancy, birth, breastfeeding and parenting" (www.lamaze.org).

HypnoBirthing® (Mongan, 2005) teaches relaxation during labor emphasizing "what is experienced in the body is determined in the mind" (p. 65). Mongan's text points out that "words and thoughts are powerful and profoundly affect our everyday experiences and beliefs. Equally significant is the harm that is created by the negative energy of the confusing, harsh and frightening words of conventional birthing" (p. 67). Medicalized language is contrasted with HypnoBirthing language. Of course, birth and birthing are words to replace deliver and delivery. Other word substitutions worthy of note are *uterine surge or wave* for contraction, *birthing time* for due date, *membranes releasing* for water breaking or rupturing, and *special circumstances* for complications. This attention to the language of childbirth reduces fear and increases the potential for a gentle, natural birth.

I have presented *Mothers' Minds Matter* at an annual International Society for Pre- and Perinatal Psychology and Medicine (ISPPM) conference in Heidelberg, Germany as well as at an APPPAH conference in Canada. Seeking to empower women, I created a short process I called *Picturing a Better Birth*© to help pregnant women use their powerful minds to envision an ideal birth. Newberg and Waldman have validated the use of positive visualization stating, "Positive imagery can reduce a negative state of mind, whereas negative images will maintain or enhance a negative mood" (2013, p. 131).

The concept for this visualization exercise arose from my doctoral research, a qualitative study that generated a dissertation titled *Primiparas' Expectations of Childbirth: The Impact of Consciousness*.

Each woman I interviewed drew a picture of her ideal birth while she was pregnant and then reported during our second meeting how her experience of giving birth matched her ideal. These women taught me what to include in an exercise I could share with others.

Picturing a Better Birth© utilizes an acronym: PR-I-M-E-S which stand for the elements to include in a drawing of an ideal birth—the best one a pregnant woman can imagine. PR stands for Process, I for Infant, M for Mother, E for Environment, and S for Supporters. Drawing accesses the limbic brain with its connections to the visual, spatial, non-verbal right hemisphere (Siegel & Hartzell, 2003), and evokes feelings associated with the ideas that are out-pictured. Women are urged to use all their senses including sound (music) and smell (fragrances) while visualizing. They are advised to think positively using encouraging words which utilizes the left brain and its linguistic capacities (Siegel & Hartzell, 2003). Finally, they are asked to reinforce their ideal by displaying their art in a prominent place so they can view it often. This easy, fun process can be suggested to a pregnant woman as part of any childbirth education program.

Specific Words to Watch

Women go to hospitals to "deliver" their babies. Since I began my pre- and perinatal studies, my contention has been that we deliver pizza, not babies. Mothers give birth or birth, which is a verb. Babies are born, not delivered. I love the beautiful Spanish expression "dar a luz" for giving birth. My Spanish speaking friends tell me this expression translates "to give to the Light" (Highsmith, 2016). To bring from the darkness of the womb into the light is a much more pleasant way to think about birth than delivery!

Delivery, the word itself, suggests that someone other than the mother brings the baby into the light. To restore the respect women deserve for giving the gift of life, you could substitute words like birthing (the verb) or giving birth (my favorite). Stop asking women who delivered their babies. I contend that giving birth is more than a mechanical procedure facilitated by technicians who can then take credit for delivering the baby. Our words can reflect the deeper reverence we have for life, and for a woman's singular role in giving that gift.

Another common expression I suggest we change is calling the term of pregnancy nine months. An ideal pregnancy lasts ten months. The March of Dimes has a campaign to educate the public about the 280 days it takes for a baby to develop in the womb. Here is my point: nine months, which is so well known that it became the title of a popular movie, is often thought of as nine periods of four weeks each or a total of 36 weeks. If we are influencing our babies while they are in utero, they are being

inundated with the words, thoughts, feelings, and beliefs that they should only stay in the womb for 36 weeks instead of 40. The short duration of 36 or 37 weeks is defined as prematurity and premature births account for 9.6 percent of births today (March of Dimes). The March of Dimes declares:

> In the United States, more than 540,000 babies are born too soon each year. Preterm birth is a serious health problem that costs the United States more than $26 billion annually, according to the Institute of Medicine. It is a leading cause of infant death, and babies who survive an early birth often face the risk of lifetime health challenges, including breathing problems, cerebral palsy, mental retardation and others. (www.marchofdimes.org)

I ask, are we sending a message to our sentient prenates that urges them to arrive too early? Their brains increase in size by another third during the last few weeks of a 40-week pregnancy. The best place for that growth to occur is in the womb.

Babies are listening. They are aware and paying attention (Highsmith, Landsberg, & Vernallis, 2004). They are often very compliant and will take care of their mothers. Many prenates are *fetal therapists*, a term I learned at Santa Barbara Graduate Institute but which has not been popularized enough to be found doing a google search. They will be still in utero when movement disturbs mother or when they feel unwanted (David, Dytrych, Mastejeek, & Schuller, 1988). Babies will leave when asked (McGarey, 2000), or respond to Daddy's tapping on mommy's belly by tapping back (Van der Carr, 1997). Babies are smart, even before birth, and will initiate their own labor and birth (Gao et al., 2015).

As psychologists and educators we can lead the way in changing the paradigm of childbirth by watching our words. We can stop using *delivery* language and replace that term with *giving birth* or *birthing.* Think of all those items that are delivered: newspapers, pizza, mail, even speeches. Make birthing or giving birth your choice to honor and empower mothers *and* the babies they carry.

We can reject labels like failure to progress. Point out to pregnant women that if they choose a place to give birth other than their own homes, they can locate facilities and caregivers that promote relaxation and the easing of fears so birth can take place naturally. Find those resources yourself so appropriate referrals can be made. Encourage laboring women to refuse to be rushed and to stay connected to their unborn babies. Babies are listening and want birth to be as stress free as possible for everyone.

We can begin to talk about pregnancy as a 280-day/40-week/10-month process. This reflects lunar time. Women's bodies cycle every 28 days beginning at puberty and the commencement of menstruation. They continue this rhythm until menopause. Pregnancies occur within this timeframe. *Ten times 28 equals 280* (10 X 28 = 280) is a simple equation for the timing of a perfect pregnancy.

Benediction

A good way to think about the words we use is to consider a *benediction*. "A benediction is a blessing. … The noun benediction comes from the Latin roots bene, meaning "well" and diction meaning "to speak"—literally to speak well of" (https://www.vocabulary.com).

Mahatma Gandhi eloquently said, "Your beliefs become your thoughts, your thoughts become your words, your words become your actions, your actions become you habits, your habits become your values, your values become your destiny" (Ghandi, n.d.). Good words, underpinned by good thoughts and beliefs, are vital to change the paradigm in childbirth.

Choosing good words, as Newberg and Waldman (2013) state, is essential because words become reality. The paradigm shift in childbirth depends on speaking good words—benedictions. We can consciously cultivate a language of childbirth that embodies compassion and respect for pregnant women and their babies better than we have. This may seem too elementary, but change at the grass roots level begins with uncomplicated notions.

My motto is: change the childbirth language you use and change the world of childbirth.

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