Conscious Prenatal Bonding

by
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DEDICATION

This research is dedicated, in deep gratitude, to the Breath of Life and Violette Star.

It is also dedicated to the memory of my cherished friend Katherine McNeil (7/5/1954–3/24/2013).

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This pilot research assesses and evaluates mothers' experiences of somatic bonding and how these experiences support an easier and gentler pregnancy and secure attachment. Using a combination of research methodologies of phenomenology and case studies, the study sought to identify the "essence" of this experience through careful analysis of the self-reported experiences of five pregnant women. This research hypothesized that participation in an Optimal Prenatal Bonding (OPB) intervention makes a difference in the maternal-fetal bonding relationship. The dissertation sought to answer the question: how does the insertion of the OPB process influence prenatal bonding?

An overall analysis of this pilot research presents positive results. The subjects expressed positive responses about their experience. The subjects stated they felt held as women and as mothers. Each subject was invested in learning to experience relationship with their prenate somatically. The felt-sense of early wounding changed over time because the subject had more resources and was capable of renegotiating a different relationship with her past patterning.

Findings from this study suggest that pregnant women and women who want to have children would benefit from experiencing an OPB intervention. Recommendations for future research include conducting more research with heterogeneous groups of women including those undergoing in-vitro fertilization and cesarean section delivery. Educational interventions are also recommended so that younger generations can understand the importance of prenatal care.

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CHAPTER 1

PROBLEM FORMULATION

Introduction

This dissertation's research on prenatal bonding has been developed over the last 20 years. The decade of the 1980s introduced the idea that a baby in-utero is active, curious, and capable of expressing emotion (Chamberlain1994b). Groundbreaking research gave parents the opportunity to perceive a prenate as engaging, responsive, and interactive in the womb surround. The current research presents an effort to tease apart the dynamics of the maternal-fetal relationship and approach this primary relationship from a body-mind perspective (Castellino, class notes, September 20,1999). The somatic aspect of this paradigm is what makes it unique by identifying and actively supporting the felt sense or bonding sensation.

Optimal Prenatal Bonding (OPB) is a therapeutic process that I developed to enable maternal-fetal bonding to begin and build prenatally, with the intention of creating a healthy, conscious pregnancy (Lipton, 2011a). OPB is the consequence of advocating for the voice of the prenate and redefining the critical and sensitive nature of the maternal-fetal relationship (Chamberlain,1997; Emerson, 2002; Montagu, 1962). If this

early relationship is supported consciously, it will minimize the impact of trauma on the prenate (Castellino, personal communication, December 20, 2010; Sills, personal communication, March 10, 2011). Without the awareness of and education in healthy parenting, there is the potential for violence and abuse prenatally which will recapitulate without any intervention (Karr-Morse & Wiley, 1997).

Western culture acknowledges a bonding relationship primarily as a mental exercise (Chamberlain, 1994b) and as something that only happens after birth (Freud, 1963). The OPB paradigm suggests that maternal-fetal bonding begins at conception and includes a palpable knowing of bonding with an individual throughout life. Nonverbal communication between mother and child from conception throughout the child's first year of life determines the fundamental patterns that can be observed throughout adulthood, including breathing patterns, nonverbal gestures, gait and postural attitudes (Badenoch, 2008; Briggs, 1992; Gluckman & Hanson, 2005; Siegel, 1999).

This research proposes that the activity of prenatal bonding encompasses more than a mental process. This dissertation explores and supports the possibility that prenatal bonding is a body-mind process that is recognizable from the very beginning, as well as throughout the lifespan of an individual, both behaviorally and psychologically (McCarty, 2004; Montagu, 1986; Nathanielsz, 1992; Nathanielsz & Vaughan, 2001; Wirth, 2001). It proposes that a somatic approach to bonding may facilitate conscious parenting.

To explore this potential for maternal-fetal bonding, two questions must be asked:

What is the felt sense of bonding that a pregnant woman experiences? How does a practitioner actively support the somatic aspects of maternal-fetal bonding? The answers to these questions are critical to the understanding of the OPB process.

Eugene Gendlin, PhD is the originator of the term *felt sense*. Felt sense is not a mental experience but a physical one, describing a bodily awareness of a situation or person or event. The felt sense is the total experience you feel, know and sensate about any given subject no matter when, where or how (Levine, 2008). The felt sense or sensation of bonding is introduced as a necessary resource for a sacred pregnancy (Gendlin, 1981; Klaus & Kennell, 1982; Klaus, Kennell, & Klaus, 1995; Klaus & Klaus, 1998; 2001). The ability to embrace pregnancy as a somatic experience supports the bonding process as a powerful and positive experience (Klaus & Kennell, 1982; Klaus et al., 1995; Klaus & Klaus, 1998).

Marshall Klaus and John Kennell's research on bonding made a universal and powerful impact on hospital policy. These two well-known pediatricians are renowned for their innovative work in hospital and delivery practices all over the world (Klaus & Kennell, 1976; Klaus et al., 1995; Klaus & Klaus, 1998). Their work made the hospital practice of birth and after birth healthier and more humane (Chamberlain, 1995a). Rooming-in offers new parents the opportunity to spend more time and contact with their little ones, thereby deepening the parent-child bonding because the child remains with the mother instead of going to the nursery (Klaus & Kennell, 1976, 1982; Klaus et al., 1995; Klaus & Klaus, 1998). Klaus and Kennell describe bonding as "the parents' emotional investment in their child. It is a process that builds and grows with repeated meaningful and pleasurable experiences" (Klaus et al., 1995, p. 192).

Current PPN literature argues that bonding begins at conception and continues through birth (Chamberlain, 1992a, 1994b; 1997, 1999; Nathanielsz, 1996, 1999; Nathanielsz & Vaughan, 2001). Historically, prenatal consciousness and communication were not considered viable options for maternal-fetal bonding. Therapists in the first part of the 20th century thought prenatal communication of any kind was impossible because the prenatal brain is not fully developed until after birth (Freud, 1963). While mainstream thought suggests that the mind is identified with the brain, Chamberlain and other experts state that the mind-brain confusion must be revised as two separate entities (Chamberlain, 1998a). McCarty (2004), a pioneer in the PPN field concurs, "I now believe that for us to more fully and accurately understand the experience and development of the growing prenate and baby, we must acknowledge and hold a higher truth. We are conscious prior to and beyond our physical body and brain" (p. 344)

According to Chamberlain (1992a) and Verny and Kelly (1988), parenting starts before birth. Western culture has been so entrenched in the "materialism of medicine and psychology," (Chamberlain, 1997, p. 51), it has yet to recognize the sentient nature of fetal behavior (Chamberlain, 1997; Piontelli, 1992) and remains confused about the conscious presence of the embryo (McCarty, 2004). Parenting in the 21st century is new territory and a necessary frontier for optimal human development (Chamberlain, 1992a, 1997).

The current paradigm, OPB, fills the gap with active, dyadic bonding practices. History has shown that the consequences of no bonding range from violence, hypertension, child abuse, and personality disorders to eating disorders and theft (Chamberlain,1995a; 1995b). The current paradigm holds safe space for sentient beings,

considered to be both the mother and the fetus. Mothers and their families have an opportunity to be conscious about how to best raise their child, and recognize the significance of knowing that whatever happens in their life is also experienced by the prenate—behaviorally, developmentally, and psychologically (Castellino, personal communication, December 20, 2010; Janov, 2009; McCarty, 2004). This includes generational imprinting (Castellino, 2005).

Background of the Study

The OPB paradigm is composed of four information fields called the four fields of knowledge: Prenatal and Perinatal Psychology (PPN), Biodynamic Craniosacral Therapy (BCST), Trauma Therapy (TT) and Conscious Parenting (CP). Each field offers necessary information to build the entire OPB paradigm. PPN provides the foundation or the umbrella. BCST is the body-oriented expression for the foundation. TT is the field of interaction of the above two fields, specifically inside the womb, in the maternal-fetal relationship, and the relationship between the mother and her environment. CP is the expression of health and the indicator for the expression of self-regulation and balance (Lipton, 2011a).

Prenatal and Perinatal Psychology: (PPN)

The field of PPN is the foundation for the OPB paradigm. The history of PPN acknowledges its positioning and relevance in the 20th century. The core principle of PPN states that prenates are conscious beings, capable of intelligence, emotion, and memory (Chamberlain, 1992a, 1992b, 1994b; Kennedy, 2008, 2009; McCarty, 2004; Sills, 2001b, 2009). With appropriate attention, intention, focus, and unconditional love, a prenate is capable of communication, sensation, and experience with more than the five basic

senses of seeing hearing, touching, tasting, and smelling (Chamberlain, 1998b; McCarty, 2004).

Resistance to the revolutionary PPN paradigm continues from both medical and scientific communities. Their criticism points to the limited value of PPN, particularly its fragmented statistical data, accountability primarily through observation, and anecdotal case studies instead of actual research. PPN experts say that the medical and scientific methods of viewing human life are outdated (Chamberlain, 1992a; McCarty, 2004).

The history of PPN has grown over the last 50 years, and the perception of the prenate has shifted over time. The classical psychodynamic therapists believed that the most significant phase of a child's development was after birth until the age of 5 or 6 (Freud, 1963; Kennedy, 2008, 2009). In the 20th century, Sigmund Freud (1963) stated that all anxiety originates after birth. Freud paid minimal attention to life prior to birth because the development of the brain was not complete until after birth (1963). However, Otto Rank, a student of Freud's, wrote the book, *The Trauma of Birth* (1994) in which he recognized that neurotic development could be tracked to the time of birth (Chamerberlain, 2005; Kennedy, 2008). Birth trauma is a critical event that creates significant imprints. Other psychotherapists maintained the opinion that birth shaped personality, behavior, and attitudes, including Elizabeth Noble (1993), Arthur Janov (1981), and Stanislov Grof (1993).

The advent of the ultrasound and x-ray used in pregnancy (Piontelli, 1992) allowed the prenate to be seen through observation without disturbance. This technological advancement enabled a more accurate fetal diagnosis, confirming that the fetus is not an inert passenger (Piontelli, 1992). The use of the ultrasound gave a mother

an opportunity to view her baby prior to birth, which allowed a mother to connect or bond more easily.

The revolutionary discoveries in neuroscience in the 1990s are referred to as the decade of the brain. Thomas Verny (1989; Verny & Kelly, 1988), a visionary and the grandfather of PPN was one of the first to make note of the sensitivity and plasticity of the brain. The womb experience, says Verny, is best when the child knows she is wanted and loved (Verny & Kelly, 1981). Verny says that a prenate does her best when the parents acknowledge her presence through communication, touch, and accurate reflection. The resilience of PPN psychology continues to strengthen, and the result is an emerging and revolutionary paradigm (Lipton, 2011b; McCarty, 1989, 2004).

Biodynamic Craniosacral Therapy: (BCST)

BCST is a bodywork modality that asks the practitioner to come into a physical, somatic, energetic, emotional, and spiritual relationship with tissue, structure, fluid dynamics, energizing and organizing principles and the inherent treatment plan (Becker, 1997, 2000; Gilchrist, 2006; Sills, 2010a, 2010b, 2011). BCST is a sophisticated, therapeutic body-oriented modality that fine-tunes a practitioner's perception, palpation skills, and the ability to negotiate verbal and nonverbal contact with the subject (Gilchrist, 2006; Kern, 1994, 2001; Sutherland,1990). The practitioner must have an understanding of anatomy and physiology as well as the embryological development of the prenate (Sills, 2001b, 2004, 2010b; Stone, 1985), in order to remain in accurate reflection. It has been suggested that BCST is the somatic component to PPN.

BCST is closely related to osteopathic medicine, holding the belief that life demonstrates its presence as energy and motion (Becker, 1997; Magoun, 1997). This is

an essential principle of Osteopathic medicine as described by it originator, A. T. Still. Osteopathic method is based on the philosophy that the human body is an inter-relationship of all systems, and the state of balance and regulation of all of these systems creates health. Dr. William Sutherland (1828–1917), a student of Dr. Still, used manipulative treatment to correct problems in a body's structural matrix (Sutherland, 1962; 1990). This treatment enabled a body to function and heal to its capacity from the inside out. Sutherland's findings were not completely embraced by mainstream medicine through the 1950s and 1960s. The spiritual component of osteopathy gradually moved outside the medical community and this led to the development of BCST in variety of forms in the 1970s (Chitty, n.d.).

The primary developer of BCST, Franklin Sills of Devon, England, synthesized his own experience as an osteopath and polarity therapist by creating a body-oriented therapy, which combined osteopathy and energy medicine (Sills, 2006, 2011). Sills developed BCST and began teaching in the United States in the early 1990s. The skill set of BCST is similar to that required by an osteopath (Sills, 1989, 1996, 2001a, 2001b, 2004).

BCST actively supports a balanced and bonded relationship between the mother and the fetus. A mother's influence on the prenate creates a delicate, vulnerable relationship. Whatever the mother experiences, her prenate also experiences (Castellino, personal communication, December, 20, 2010). BCST enables the practitioner to slowly titrate between the mother and the fetus, negotiating between a healing vortex and trauma vortex (Levine, 1997, 2006a, 2006b, 2010). The human body holds its history in patterns or shapes of experience (Becker, 2000, 2001). The patterns of a mother's experience are

further compensated by ancestral influences, originating more than two generations prior to the fetal conception (Emerson, 1995; Siegel & Hartzell, 2003; Solomon & Siegel, 2003).

BCST delivers the body's story to the practitioner in such a way that she can engage these shapes, which are based on the system's presentation of its priority, which shows up as subtle nuances in the cerebrospinal fluid movement, with accurate reflection, and listen carefully with all senses to the story that the body presents.

Somatic Experiencing/Trauma Therapy: (SE/TT)

Dr. Peter Levine describes trauma as a human experience that is based on survival skills and instincts. During the past 35 years, Levine has studied the nature of trauma and developed the field of somatic experiencing (Levine, 1997, 1999, 2006a, 2006b). Levine's research is a combination of his personal experiences and his studies observing the behavior of animal biology in their natural habitat. Levine transferred what he discovered from animals to working with humans. Levine's trauma paradigm integrates both verbal and behavioral action (Levine, 1997, 1999).

One of Levine's key principles states that trauma is not simply a mental exercise (Levine, 2006). Trauma is not about a man losing his job, but it is his body's somatic response (perhaps fear or anger) to losing his job, and how this has been imprinted in the nervous system. How a client holds this imprint is unique for each individual (Levine, 1997, 1999; Noble, 1993). Trauma is inherent in the primary respiratory mechanism of the craniosacral system. Experiences of trauma are held as shapes or patterns within the subject's nervous system (Sutherland, 1990).

When a practitioner treats a subject's emotional issue, the prenatal experience must also be considered (Janov, 1983, 2009).The practitioner negotiates contact with the maternal-fetal dyad's nervous system rather than with the actual experience of stress. Trauma is imprinted in the nervous system and is not contained in a specific life experience (Heller & Heller, 2001; Levine, 2010).

Conscious Parenting

Conscious parenting refers to the unconditional protection of the sacred bonding within the maternal-fetal relationship (Wirth, 2001). Several experts have shared their vision of a world where we can embody human consciousness. In this way, the little one can receive presence from the beginning of life when energetic influences have a greater impact (Castellino, 1999a; Lipton, 2011b; Lipton & Bhaerman, 2009; Wirth, 2001). These experts have creatively designed unique ways of supporting and educating women about conscious conception and conscious parenting (Castellino, 1999a; Luminare-Rosen, 2000; Wirth, 2001). Five of these experts are presented in this dissertation.

Ray Castellino has developed three programs that explore, teach, and enable his students to embody conscious parenting while experiencing their own early imprinting (Chamberlain, 1992a, 1992b, 1994a, 1994b; 1997). Castellino is one of the key originators of PPN and has explored this field for more than 20 years. His commitment to this work evolved from his desire to know and understand why people do what they do (personal communication, December, 20, 2010). This exploration led him to develop BEBA (Building and Enhancing Bonding and Attachment), an innovative research clinic that Castellino and McCarty initiated in 1993. The clinic works with children and their families examining what influences early emotional, psychological, and physical

patterning that impacts a child for his entire lifespan. Castellino's clinics promote interaction, and his intention is to support primary family bonding (personal communication, December, 20, 2010). Castellino says that more of the families he works with are choosing conscious parenting. He says happily that this bodes well for future generations.

Castellino also has developed 2-year foundation training for healthcare professionals. The intention of this training is to receive clinical training in prenatal, birth, infant, and childhood trauma resolution. Students have the opportunity to re-experience and reframe their personal traumas while learning new skills and resources. The titrating and shifting of personal trauma enables a student to support his personal healing while learning professional practitioner skills.

The third component of Castellino's work is the "Womb Surround" Process Workshops. Students are asked to experience three of these workshops as part of their training. Each workshop has between five and seven students who form the womb surround. In the womb surround, each participant has a turn where he can bring up an issue or problem that exists in present time and continues to be a stumbling block for that person. Through this process, each individual learns where and how the problem originated, what were the influences, and whether it was his pattern or was he holding it for someone else. If the problem began a very long time ago, the body remembers what happened and has an opportunity to reframe it from its origination.

Dr. Frederick Wirth's program for conscious parenting views gestation as sacred for a pregnant woman. Being pregnant is the most important experience in a woman's life. Dr. Wirth's program for conscious parenting embraces a mother's sensitivity and

vulnerability, and actively engages her in stress management classes (Wirth, 2001). The Institute for Prenatal Education is Wirth's effort to perpetuate study in conscious parenting.

The third individual who has creatively developed a tool to encourage and support conscious parenting is Carista Luminare-Rosen. Luminare-Rosen is an innovative force in conscious parenting. She believes that parenthood is the hardest and most amazing job anyone could have, and many parents are unprepared to begin the roles of mother and father. Because of this, Luminare-Rosen co-developed the Center for Creative Parents to prepare and teach families about preconception, prenatal, childbirth, and early parenting. The center has a series of workshops for women and their families to educate and be realistic about being a parent (Luminare-Rosen, 2012). The Center for Creative Parents also supports women and their families to prepare for the changes during gestation and after birth (Luminare-Rosen, 2000). Luminare-Rosen supports a new mother to consider the mental, emotional, and spiritual challenges that develop before, during, and after the baby arrives.

Bruce Lipton, a cellular biologist, endorses conscious parenting within the context of Epigenetics. Epigenetics examines how the cellular, chemical reactions in the environment can turn genes on and off. According to Lipton, "just like a single cell, the character of our lives is determined not by our genes but by our responses to the environmental signals that propel life" (2005c, p. 16). This implies that we are not victims of our genes, and each of us has the capacity to change his perceptions and choices about health (Lipton, 2005).

Lipton continues to say that this process does not begin after birth, but rather begins in the womb (Nathanielsz, 1999; Verny & Kelly, 1981). It matters how a child is conceived, whether that be hate, love, abuse, or haste. It matters if a woman does not desire pregnancy at this or any time because whatever she is feeling, the fetus feels, and "these complex, small creatures have a pre-birth life in the womb that profoundly influences their long-term health and behavior" (p.157).

Lipton believes that parents have the option of improving the womb environment. He states that "The responsiveness of individuals to the environmental conditions perceived by their mothers before birth allows them to optimize their genetic and physiologic development as they adapt to the environmental forecast" (Lipton, 2005, p. 157). This influence over the environment continues after a child is born.

Problem Statement

This dissertation intends to fill a critical gap in the practice of active, prenatal bonding. When women and their prenates can embrace necessary resources, the outcome can prevent issues like hypertension, ADHD, violence, theft, personality disorder, eating disorders, and child abuse, to name a few. If these women are more resourced in living skills; such as self-care, hygiene, preventive health and wellness, exercise, and nutrition, it is more likely for them, and therefore their babies, to avoid these issues.

Research, knowledge, and experience are necessary to create and support a bonding relationship. Many women remain ignorant of the process and importance of bonding even after the births of their children (Montagu, 1962, 1965; Wirth, 2001). If women and their families remain uncertain, this can challenge their ability to be role models (Castellino, personal communication, December, 20, 2010).

Purpose of the Study

This research assesses and evaluates a mother's experience of somatic bonding and how this experience supports an easier and gentler pregnancy and secure attachment. The significance of a healthy bond is extremely relevant in a rapidly changing world where violence, harm, and war exist (Chamberlain, 1999; Lipton, 2011b).

OPB aims to facilitate the mother's somatic discernment of the effects of forces both outside and inside the womb. This facilitation supports the mother to better balance, harmonize, and self-regulate, thus enabling the prenate to do the same creating a safe setting for the fetus (Castellino, 1999a, 2005, 2011; Chamberlain, n.d.; Gluckman & Hanson, 2005; Noble, 1993; Wirth, 2001).

Importance of the Study

The OPB paradigm intends to fill a gap in the 9-month gestation period, as the maternal-fetal relationship develops so that the mother is able to experience the felt sense of bonding with her baby before birth. The present paradigm is supported by the science of Epigenetics, or the study of the mechanisms that allow the environment to influence genes. Epigenetics tells us that our genes are not important in developing who we are and the formal dogma that the genes control life is fundamentally flawed. Epigenetics validates the significance of the environment and its ability to turn genetic information off and on.

Allopathic medicine is not the only option. According to Lipton, an awareness of an energy-based science and medicine encourage the knowing that we can change our lives by changing our beliefs, which means that we co-create our lives.

Epigenetics indicates that actively supporting the bonding process can offer a wide array of options in fetal development instead of being without choice due to one's genetic make-up. This science returns the power back to each of us; in other words, self-empowerment. The more we learn about this new science, the more we can appreciate the bridging between science and energy medicine (Lipton & Bhaerman, n.d.).

Epigenetics has obvious and powerful connections for the bonding process. Violence, for example, does not have to be passed on genetically without options. A conscious parent can change the generational relationship to violence because our environment offers many more options.

There is no prior research that examines maternal-fetal bonding as a three-dimensional somatic experience. Hypothetically through anecdotal case studies, it is shown that when this initial primary relationship is weakened or missing, the consequences are unstable.

Hypothesis and Questions

This dissertation's hypothesis states that the insertion of the OPB process, therapeutic support, education, and skill of the practitioners (the intervention) during pregnancy makes a difference in the maternal-fetal bonding relationship. This dissertation's research question is: How does the insertion of the OPB process influence optimal prenatal bonding? In other words, how does the intervention affect maternal-fetal bonding?

Scope of the Study

Originally, there were 10 women who were interested in the study. Five of these women, and their families, agreed to participate in this study. All of the families were

self-selected or referred by either friends or physicians. One woman was 3 months pregnant. Three of the women knew they wanted to have children, but initially, each spent time in self-discovery and developing a support system.

All 5 subjects were self-selected to participate in the present study. Four of these women had integrative therapy prior to creating a family. The fifth woman began her sessions in the third month of her pregnancy. Her therapy experience is considered valid for the purposes of this research. She was a first time mother needing education, support, and body awareness in order to parent consciously. Anecdotal case studies were used to demonstrate and evaluate the subject's experience of the OPB process.

Sessions

Prior to the first appointment, the subject is asked to fill out an intake form (Appendix A). The information required includes the following: name, date of birth, intention, accidents, surgeries, medications, and resources to help with stress, fun, and hobbies. The unique part of the intake form is the questions pertaining to the subject's history, including preconception, conception, gestation, and birth. Each subject spoke with her mother to obtain information regarding the pregnancy and birth of each subject. Their mothers' responses varied from no information, to it was easy, to it was too fast, or no drugs were used. Sessions with the subjects will likely reveal the rest of the story through the patterns and shapes that the tissues are holding in compensation.

Three of the 5 subjects' husbands participated throughout the pregnancy. Each of the 5 women requested space to do personal growth exploration, relationship processing with their baby, and integration back into the home with the other family members. The process is currently evaluated with a questionnaire.

During a session, the space is held with the following *rules:*

- confidentiality,
- learn to say "no" when necessary,
- negotiate contact or touch, and
- ask questions.

The first few sessions build the foundation and focus on creating safe space and developing a solid practitioner-client relationship. Accurate reflection is a critical practitioner skill that matures with experience. Clarity about the subject's intention is essential and detailed verbally as well as somatically. The subjects state their specific intention for each session. This is under the umbrella of the primary intention of the subject's therapy. A practitioner's ability to tune in to the subject's nervous system and track it throughout the session gives the practitioner an idea of how the nervous system holds trauma and the patterns. The sessions run between an hour and an hour and a half. Sessions are therapeutic and educational. The practitioner is asked to focus on the health instead of what is wrong with the subject's system.

The practitioner is the role model for the maternal-fetal dyad. According to Sills, as a role model, the practitioner must have completed enough of her personal work to be a good role model for this body-oriented process (personal communication, March, 10, 2011). It is beneficial for the practitioner to take the time to do her own work first. As Menzam put it, "shock is catchy" (personal communication, March, 10, 2011) and therefore, a practitioner must initially attend to the resolution of early trauma and then develop resources to engage a new relationship with the client's history.

The demands upon an OPB practitioner are severe; years of study are required. A rigorous education, hands on training, and supervision enable the practitioner to be as

vulnerable as the mothers and babies treated. OPB engages both verbal and nonverbal communication. The practitioner is rigorously trained to be competent in each of the four fields with a sophisticated wisdom of how to be present in relationship with one or more people while also having a textural or highly developed skill in the art of palpation. The practitioner's sophisticated palpation skills enable her to read the nuances of the subject's system, remain in a neutral or midline, track the nervous systems, and be available for verbal and nonverbal conversation with the subject's body systems. The practitioner tracks the maternal-fetal interaction, while tracking the mother and the prenate separately. This process uses dialogue and contact to facilitate the felt sense experience of becoming a mother as she begins to track sensations in her body and come into a consciously formed relationship with the prenate.

The practitioner commences a session by greeting both the mother and the prenate, demonstrating its sentience and the importance of his participation. This guidance assists the subject to not only connect with the baby but also to differentiate self from other.

The sessions include an exploration of the embryological development of the prenate. OPB assumes that the subject is able to track the growth of the prenate month-by-month or week-by-week. By looking at photos of their baby's growth (Nilsson, 1990), the relationship is more deeply engaged and secured. The visual images enable the subject to more clearly sensate what is happening in the womb. At the end of the process, the subjects are asked to fill out an evaluation form (Appendix B) after the birth approximately when the baby has reached one year.

Definition of Terms

Trauma

There are very few parents or professionals who have observed trauma-free, stress-free or symptom-free babies (Kennedy, 2003, Spring). Many traumatic behaviors and conditions are originally imprinted in-utero. Levine, (1997), suggests that if trauma remains unresolved at the moment of its inception, for example, birth, its impact will have a lasting impression. Peter Levine clarifies the meaning of trauma; "I am talking here about the often debilitating symptoms that many people suffer from the aftermath of *perceived* life-threatening or overwhelming experiences" (2008, p. 7). Levine says that people, in particular children, can be stressed or overwhelmed by things we take as common, everyday issues. Trauma is unique for each individual, and the impact of a trauma may not become apparent for many years.

Trauma is a loss of connection to others and to one's life. The loss of connection does not happen all at once. Each time the original imprint recapitulates another layer of experience forces an individual's body to become more compensated. If this compensation is not treated, the individual loses vitality, the opportunity of choice, health, and wellbeing (Levine, 2008). Castellino adds that trauma presents as overwhelm in an individual's nervous system (Levine, 1999).

Prenatal Trauma: Trauma before Birth

William Emerson says "prenatal traumas have two distinct impacts on birth. First of all, birth is often perceived and experienced in terms of prenatal traumatization. . . . Sheila Kitzinger has documented, whenever there is significant prenatal stress (trauma) there is an increasing statistical likelihood that birth complications will occur with greater frequency" (Emerson, 1995, p. 5). Emerson describes the relationship of prenatal trauma

and prenatal bonding: “prenatal traumas have another and more insidious impact where traumas occur prior to or during birth, the quantity and quality of bonding is radically reduced” (Emerson, 1995, p. 6). Prenatal trauma can and often does recapitulate from conception trauma, to implantation trauma, to discovery trauma and birth trauma.

Because the mother and fetus are merged prenatally, the incidence of fetal trauma is a direct function of how its mother interacts with her environment. Castellino describes prenatal trauma as: “beginnings imprint and override the primary being’s awareness of itself. . . . How it will ultimately feel about him/herself, the person’s emerging self-esteem and behavior moreover patterned effect of preconception, conception imprinting will be recapitulated in some way throughout the person’s life” (class notes, September 10, 2001). Without a therapeutic intervention, the early imprints will recapitulate and leave the imprint of behavioral and psychological challenges.

Recapitulation

Emerson (1977) says that if some trauma is left unresolved prenatally, it is stored as cellular memory and continues to attempt resolution after birth. Terry Larimore, has identified the most common styles of recapitulation (Larimore, 1995). These styles are listed below.

- Direct Recapitulation is an attempt to complete a prior trauma and gain successful control of the original behavior.
- Avoidant Recapitulation presents as the opposite of what happened previously.
- Identified Recapitulation occurs when a person attempts to create an experience that allows her to complete all that remains unfinished.

- Generative Recapitulation is an approach that supports others not to make the same mistakes that have been made previously.
- Creative Recapitulation is also labeled repatterning. It is a reframing of a once hurtful experience to obtain same results in a different and gentler way.

Resource

Levine states that everyone has resources. These resources that develop early in life tend to be about survival. As one gets older, the early resources make less sense, and the adult explores other options. Resources are unique for each person, including sensations, images, and behaviors. Resources enable an individual to calm, self-regulate, and support the capacity to remain in present time. Peter Levine explains that everyone has "resources can be anything or anyone that supports and nurtures a sense of physical, emotional, mental, and spiritual well-being. They can be obvious or hidden. They can be active or forgotten. They can be external or internal or both" (2008, p. 44). With respect to prenatal bonding, a mother is an external resource for the prenate. The mother has resources to support and nourish the little one, including nature, pets, family, sports, and friends.

Michael Kern (2001), defines resources as:

> Anything that helps to support health and balance. . . . Resources create physiological responses in the body. When a resource is contacted we may feel sensations of reconnection, settling, expansion or lightness. Resources help us to stay present and give the capacity to relate to traumatization without getting overwhelmed. (p.225)

A prenate will access whatever supports her to survive even if that necessitates remaining in a frozen state. A resource is that which allows a person to be present (Gilchrist, 2006, 2011; Kern, 1994; Levine, 1997, 1999, 2006a, 2006b). The expression of a resource is unique for each individual. In Western culture, resourcing and support are foreign concepts, and yet, our cells dialogue with their environment from the very beginning of life (Wadhwa et al., 2001; Wadhwa et al., 2002). The OPB paradigm engages the necessary resources, giving the mother, and therefore her baby, an opportunity to be held with love, to feel safe, to know that it is welcome into life and that it is protected throughout life (McCarty, 2004).

In a trauma situation, the instinctive resources for that person are overwhelmed. In BCST, overwhelm causes the primary respiratory mechanism (PRM), to shut down. This will necessitate the individual's system to re-ignite before it can build potency (Kern, 2001). Resources support us to reflect and receive sensory input. According to Kern, "it is the practitioner's job to have awareness of both her own and the client's resources" (class notes, September 15, 1999). The practitioner tracks both his/her resources and those of the client(s).

Womb Surround

In 1992, Castellino developed and began using the Womb Surround Process Workshop (WSPW), as a teaching tool. A womb surround is a safe environment where participants examine early patterning that developed in-utero during gestation. These early imprints, Castellino states, may affect an individual both behaviorally and psychologically throughout life without invention. These workshops are an integral part of Castellino's foundation training. Students in this training are required to do four

WSPWs during the 2 ½-year training in order to graduate. Castellino found that the transformation is grounded most effectively in a small group setting over a span of 4 days and nights, allowing the "work to occur in a spacious way that supports the integration of material from your own and other's work" (Castellino, n.d.).

The structure of the PW is held by a basic skill set that each member must abide by to participate. The intention is to create safety and nurturing support within the womb surround. This supports the student's confidence to review and reframe preverbal imprinting that continues to affect the student in present time. Individual sessions run between 1.5 to 3.5 hours.

Castellino has found that a small group process enhances the possibility for long lasting transformation. The group size enhances an intimate, nurturing, and safe environment. Each Process Workshop has no more than seven individuals and engages both an individual and a group process. The process of healing traumatic patterning shifts the individual's relationship with that experience. In other words, the individual has the opportunity to choose a different response than before. The essence of healing early or prenatal trauma supports and encourages a loving bonding within primary relationships. This is a powerful experience that many express as transforming. WSPW provides an eye-opening somatic experience that demonstrates the significance of prenatal bonding (Castellino, n.d.).

Epigenetics

Cell biologist Bruce Lipton defines epigenetics as studying the molecular mechanisms which allow the environment to control gene activity. Lipton states that conscious parenting stresses the significance of the mother as the prenate's environment

that carries the potential for prenatal bonding. With regard to prenatal bonding, Lipton says that a mother's contributions to her little one can either enhance or diminish a prenate's chance for survival. A genetic condition therefore can be expressed as unique for each individual. The quality of maternal-fetal bonding and the opportunity for a safe womb surround has a chemical response from the prenate that supports mutual-regulation.

In his book, *Pre-Parenting: Nurturing Your Child from Conception,*(2002b), Verny reinforces the significance of the environment for the prenate, particularly how the little one is conceived and whether the pregnancy was planned. Verny emphasizes that the conflict of nature-nurture is incomplete. The impact of the environment must be considered. Epigenetics states that the environment and its influence have the potency to turn off and on the genetic make-up of an individual. Verny states that the environment for the prenate is critical—how the little one is conceived, where it was conceived and whether or not the mother wanted to have a baby.

In their book *The Fetal Matrix,* Gluckman and Hanson (2005), explain epigenetics as the study of how "the interactions between genes and environment very early in life have a predictive role in defining how any subsequent interactions will be resolved" (p. 1). The predictive factors of the environment, such as nutrition, smoking, and alcohol have a profound influence on the prenate, and the prenate embodies these cellular imprints in order to survive.

Bonding

The *Encyclopedia of Children's Health (Children's Health)* defines bonding as "the formation of a mutual emotional and psychological closeness between parents (or

primary caregivers). . . . Bonding is essential for survival. The biological capacity to bond and form attachments is genetically determined. The drive to survive is basic to all species. . . . The baby's primary dependence and the maternal response to this dependence cause bonding to develop" (Encyclopedia of Children's Health, n.d., ¶ 1–2). Children's Health states that prenatal bonding secures improvement in the birthing process and supports a baby and mother dyad to have reciprocal feelings, which mature as the baby develops. According to Children's Health, "a firm bond between mother and child affects all later development, and it influences how well children will react to new experiences, situations, and stresses" (Encyclopedia of Children's Health, n.d., ¶ 4)**.** Any two people who spend time together may form a bond (Klaus & Kennell, 1982). Bonding typically refers to the process of attachment that develops between romantic partners, close friends, or parents and children and is an interactive process characterized by emotions such as affection, trust, and the development of a close, interpersonal relationship. Bonding, for this dissertation, specifically refers to the commitment, concern, and affection an adult has for her children whom she has cared for from the beginning. Klaus and Kennell add "adults become committed to a one-way flow of concern and affection to children for whom they have cared during the first months and years of life" (Klaus & Kennell, 1982, p. 1). The depth of the bond reflects a parent's involvement with the child. This is typically with the mother and somewhat less with the father.

CHAPTER 2

REVIEW OF THE LITERATURE: THE FOUR FIELDS OF KNOWLEDGE

A Lack of Bonding

This literature review begins with a discussion of the relationship between impaired pre-natal bonding and violence. The review then presents the works of several experts, including Robin Karr-Morse, Meredith S. Wiley, David Chamberlain, Ray Castellino, Marshall Klaus, John Kennell, Thomas Verny, William Garner Sutherland, Franklyn Sills, Rollin Becker, Peter Levine, Diane Heller, William Emerson, Frederick Wirth, and Bruce Lipton. Through their published works, public presentations, academic offerings, and private communication with the author of this paper, each of these experts offers his or her opinion on the reasons for and the implications of the absence of prenatal bonding. The common denominator in the work of these experts is their strong belief and professional findings that our earliest experiences, before birth, demand much more of our attention for us to understand how violence manifests from a lack of early care and nurturing. Each of them notes that for more than 100 years, the science and medical communities have both made erroneous assumptions regarding the existence (or the lack of existence) of prenatal bonding and the significance of (or striking insignificance placed

on) prenatal development (Chamberlain, 1988; 1994b, p. 11; 1997, 1998a; Emerson, 1992, 1995).

According to these experts, the time between conception and birth is of extreme importance and has a profound effect on the maternal-fetal relationship. This is a critical period, during which bonding, or lack thereof, has deep and long-term consequences for a fulfilling life for the developing child (Chamberlain, 1988, 1994b, 1997, 1998a; Emerson, 1992, 1995; Klaus & Klaus, 1998). The consequences of ignoring prenatal care are enormous. There are ramifications for a child during gestation, as a result of gestation distress, toxicity, abuse, or neglect, to name a few (Bernhardt, 2010; Emerson, 1995; Emerson, 2002; Karr-Morse & Wiley, 1997). The violence experienced prenatally is silent, and the injuries may not be discovered until much later in life(Karr-Morse & Wiley, 1997).

The majority of the research in this field is qualitative and developed through case studies without control groups. The groups studied tend to be homogeneous and not chosen randomly. The material covered in this literature review reveals gestation as a vulnerable time for traumatic imprinting and for the early developmental indications of violence (Chamberlain, 1995a; Emerson, 1995; Janov, 1973).

Violence: What Babies Are Teaching Us about Violence

The prenate occupies a sensitive and vulnerable position in-utero (Chamberlain, 1995a, Sills, personal communication, March 10, 2011; Emerson, 1995). Specifically, between 10 and 15 weeks, the prenate's response to a cough or a laugh occurs almost immediately. If the mother is raped or otherwise assaulted, the prenate will learn about violence early on. Similarly, the fetus responds to its mother watching a violent movie

and shares its mother emotional world. Similarly, if the mother is loved deeply, the prenate learns about love (Chamberlain, 1995a, Castellino, personal communication, December 20, 2010).

Chamberlain cites the case of Robert Harris, a young man, who was executed by the state of California. Harris' mother was brutally beaten by his father during gestation, and Harris was born prematurely. Harris was beaten numerous times, and later, he began turning the violence on animals and other people. At the age of 25, Harris murdered two boys and laughed. Chamberlain says that this example provides evidence that babies exposed to violence in the womb or at birth carry that imprint through their life spans (1995a).

The increase in drugs, toxins, and pollutants in the environment forces the examination of their impact on the prenate, physically, emotionally, and mentally with regard to violent or disturbed behavior. The ingestion of these toxins can develop into invisible damage (Castellino, personal communication, September 16, 2003).The effect of a mother drinking alcohol during gestation can create intra-uterine restriction, among other things (Chamberlain, 1995). Questions also arise in considering the use of ultra sound. In a randomized controlled study in Western Australia , out of 1,400 women, half had ultrasounds performed five times during their pregnancy, giving birth to lower weight babies than those women who had an ultrasound performed once (Newnham, Evans, Michael, Stanley, & Landau, 1993).

Prenatal Interactions

Theories about the critical phases of the embryological development allow us to be conscious of the potential for trauma interventions. For example, at 7 weeks, the beta-

endorphins are being produced. These endorphins help the fetus deal with environmental stress. Simultaneously, the development of the vestibular system supports the fetus to balance and orient to gravity forces. Two weeks later, the fetus controls its swallowing of amniotic fluid (Castellino, 2006). All of these developments can be disrupted or impaired by trauma.

Prenates are aware of and react to medical interventions. An example is the observation of a fetus response to the needle entry during amniocentesis. The fetus has been seen to repeatedly bat the needle away, including after it has been removed and reinserted (Piontelli, 1992).

A study done by Bustan and Coker (1994) demonstrates the lethal consequences of rejection. In a cohort of 8,000 pregnant women, divided into those who wanted and those who did not want the pregnancy, the unwanted were 2.4 times more likely to die within the first month of life. In a cross-cultural study of planned and unplanned babies in the U.S. and Greece, the planned and welcomed babies were already showing higher levels of cognitive processing and greater attachment to their mothers at 3 months of age than the unplanned babies (Klaus et al., 1995). This is particularly significant considering that roughly half of the pregnancies in the U.S. are unplanned (Chamberlain, 1995a).

Womb Warnings

There are many reproductive perils that challenge couples who want to have children. The age of chemistry is confronting womb safety. Parents must deal with a wide range of chemicals that are typically invisible but present in the home and work environments. Some of these are carcinogens (chemicals that cross the placenta and cause cancer); teratogens (chemicals that cause stillbirth, abortion, growth, retardation, and

brain defects); mutagens (chemicals that damage genes and chromosomes that carry genetic codes); and other toxic gases and radiation, which reduce fertility (Chamberlain, 1994b; Karr-Morse & Wiley, 1997).

Babies recognize the powerful impact of rejection and abandonment prenatally and perinatally. The work of Klaus and Kennell regarding maternal-fetal bonding (1976), focuses attention on the destructive consequences of maternal-fetal separation. Animal studies demonstrate the profound effects of separation in the post-partum period (Prescott, 1996; Project, 2012). The baby's response to apparent abandonment by the mother is both physical and emotional.

Trauma disrupts the maternal-fetal bonding sequence (Castellino, personal communication, December, 20, 2010; Levine, 1997, 1999, 2008, 2010; Levine & Kline, 2007). It creates a lack of trust and an inability to feel safe during the womb experience. When maternal-fetal bonding is interrupted by constant trauma, the prenate survives by developing a defensive stance as protection to his or her survival. A lack of bonding prenatally leads to aggression and violence (Chamberlain, 1995a; Karr-Morse & Wiley, 1997).

Emerson (1992, 1995) provides the following case example: Prior to becoming pregnant, a woman loses her father. The prenate experienced his mother's loss. This initial trauma recapitulated when her husband left her suddenly for another woman. Her sense of abandonment was reflected in her son's sense of abandonment. With little money and not wanting to be a single mother, the mother experienced a number of months of unsuccessful abortion ideation. As the young boy developed, he experienced occasional depression, and his physician discovered no explanation for this. No one

inquired, however, about the child's prenatal experience. This part of his life's story was overlooked. He became more sadistic and burned himself and gouged his private parts. Later, he was arrested 30 times for assault (Emerson, 2002).

Conception trauma, according to Emerson, most likely results from sexual abuse, substance abuse, socio-economic challenges, and the resulting impact of shame. A case of traumatic conception presents an unwed mother. This woman's pregnancy was disdained by her religious community. The mother chose to keep the pregnancy. Similar to the mother, the child experienced shame, guilt, and public ridicule. These early imprints presented profound challenges for the child (Emerson, 1995).

The biological process of implantation is both a vital and a precarious stage of embryological development (Baker, 1987; Castellino, 2005; Chamberlain & Arms, 1999; Drews, 1995; Kennedy, 2003 Autumn). Implantation is a challenging aspect of embryological development. Studies demonstrate that the individuals who experience this early trauma of not finding a home in the womb later feel hopeless, retaliate in rage, and are caught in an intense double bind, wanting to be rescued, as well as wanting to rescue others.

Robin Karr-Morse and Meredith S. Wiley

Robin Karr-Morse and Meredith S. Wiley have written an extensive study regarding the alarming reality of violence committed by children in this country. Their study presents startling information that demonstrates how violent behavior is connected to very early, prenatal trauma, from abuse and neglect to abortion ideation and abandonment. Karr-Morse and Wiley suggest that the very early imprints begin prior to the present familial generation (Castellino, 2005).

Therapists, scientists, and medical doctors are starting to find a connection between present violent behavior and at least one generation before (Karr-Morse & Wiley, 1997). This connection indicates our children are facing bleak futures without prenatal bonding. Without this early connection, children cannot know and feel that they are loved (Chamberlain, 1994a, 1994b, 1997; Klaus & Kennell, 1976, 1982; Klaus et al., 1995; Wirth, 2001).

The case study of Jeffrey tracks the details of his life and what led to his murdering an 84-year-old man when he was 16 (Karr-Morse & Wiley, 1997). On May 11, 1993, three youths broke into the house of an 84-year-old man. Jeffrey admits to striking the old man with a flashlight and leaving him on the floor unconscious. The man was not found until the next day. Several months later, the old man died.

Karr-Morse and Wiley describe Jeffrey 3 years before his conviction. Jeffrey appeared like any other adolescent living in a rural community. He presents as a typical teenager, but his story is atypical. The primary problem is that Jeffrey cannot control his impulsive behavior, even while knowing he is doing something wrong. Jeffrey cannot control himself and ultimately repeats the ill behavior excessively. At the time of the murder, Jeffrey already had a juvenile record. After the death of the old man, Jeffrey was found guilty and sent to prison and sentenced to death. His case remains in the process of an appeal.

Jeffrey's childhood was extremely chaotic, intense, and abusive, characterized by inconsistent, intense discipline. Jeffrey was never taught how to behave, so his social skills were also undeveloped. He acted out when not at home. In order to survive, Jeffrey learned to think of himself first and others later.

Karr-Morse and Wiley (1997) say that, in order to understand Jeffrey as well as similar criminals, practitioners need to examine the interaction between internal vulnerability and external risk factors. The authors report that in their interactions with Jeffrey, an internal vulnerability is present. The authors point out that initially Jeffrey appears unassuming as he greets you at the prisoners' window. He shyly smiles. He yearns for attention, but he is nervous. He answers to the questions he assumes you will ask, desperately seeking for approval.

Karr-Morse and Wiley (1997), substantiate this case study with scientific research and information regarding anatomical development of the brain as well as how it is shaped by the environment and an individual's life experience (Lipton, 1998, 2005a, 2005b, 2005c, 2007, 2009, 2010, 2011a, 2011b; Lipton & Bhaerman, 2009, n.d.). The advances in science and medicine have enabled exploration of the human brain through noninvasive technology, including Positron Emission Topography (PET) and Magnetic Resonance Imagining (MRI).

The authors, Karr-Morse and Wiley, insist that this case, like many others, is limited because the first chapter is missing. The initial chapter would explore the prenatal period, beginning with conception and ending at birth. The Western culture overrides this critical period in a child's life and this information is significant. The 9-month gestation is where the violent "seed" is planted.

When we observe violent or abusive behavior, our response is to blame and to say that someone like Jeffrey deserves what he gets. When faces like Jeffrey's are seen on the news, what we see is an adult who is culpable and must be held responsible for his

behavior. We dismiss these individuals, without exploration or understanding, because they must pay their debt to society.

Karr-Morse and Wiley suggest that violent behavior is presented by the media as if it just appears. It is rare, the authors continue, that we examine preadolescence or grade school to determine the source of this behavior. Development during the first 33 months of life is the most critical with regard to early imprint patterning.

The beginning of Jeffrey's story remains ignored. The quest to understand violent behavior remains unsuccessful because we are not looking in the right place. A story like his is told hundreds of times a day in courtrooms across the country. The prenatal period is the most often overlooked, and therefore, these individuals are undetected victims themselves of maltreatment and violence.

On November 19, 1995, *The New York Times* reported a decrease in the amount of adult crime but simultaneously anticipated more juvenile crime. There is a rise in the number of children who are growing up without guidance, self-respect, and internalized social values. Karr-Morse and Wiley strongly advocate the significance of the prenatal period. They concur that gestation has a stronger affect with regard to later violent behavior than exposure to drugs. According to, Karr-Morse and Wiley "the prenatal environment is a crucial protective opportunity. The quality of the prenatal environment can either maximize healthy development or create biological and behavioral vulnerabilities in a child's brain" (1997, pp. 54–55).

The Four Fields of Knowledge

The First Field of Knowledge: Prenatal and Perinatal Psychology

The first field of knowledge, PPN, is the container for the other three fields and is the foundation for the OPB bonding paradigm. The core principle of PPN states that the prenate is a conscious being, capable of intelligence, emotion, and memory (Castellino, 2005, 2011; Chamberlain, 1994a, 1994b, 1997; Kennedy, 2008; McCarty, 2004; Verny, 1987, 1994; Verny & Kelly, 1981). Communicating with and listening to the prenate's voice strengthens the maternal-fetal relationship and enables the dyadic bonding and attunement such that the relationship of mother to child can flourish.

Five PPN experts: David Chamberlain, Ray Castellino, Thomas Verny, Marshall Klaus, and John Kennell have been selected for their unique contributions. There is no prior research or established modality for teaching practitioners, female clients and their families' active, supportive maternal-fetal bonding. These five experts offer experience and research that validate the OPB paradigm.

David Chamberlain

Chamberlain is one of the early visionaries and leading experts in the field of PPN. In the 1980s, his informal research, primarily through hypnosis, reveals that the prenate is a conscious and sentient being capable of intelligence and communication. This revolutionary information was previously ignored and overlooked by the medical and science communities. By the end of the first trimester, a prenate is capable of responding to the womb environment, feel pain and stress, is able to communicate and the early memories have become imprints (Chamberlain, 1988, 1994b). Chamberlain became an integral part of this new paradigm after 30 years of experience in his hypnosis

practice. Through hypnosis, several of Chamberlain's clients experienced hypnotic trances taking them back to their birthing experiences. Later, through hypnosis, some of Chamberlain's clients traveled back to their prenatal experience. Chamberlain saw firsthand the benefits of this exploration (Chamberlain, 1997, 1998a, 2003).

Different research methods have demonstrated prenatal consciousness. For example, "hypnotherapy, rebirthing, yoga, meditation, psychedelics, near-death experience, and other forms of altered state experience are opening doors, revealing thinking and memory at all ages" (Chamberlain, 1998a, p. 8). Research on human consciousness demonstrates that humans are not accurately described as an embryo, fetus, prenate or neonate: At every age, the prenate has some amount of perceptual skills to interpret her environment (Chamberlain, 1998a). The paragraphs below are case studies of clients who have revealed their pre-birth and birth stories to Chamberlain.

Chamberlain describes the case of a client he calls Jeffrey (1988, 1998a). Jeffrey describes in detail, while under hypnosis, the darkness of waiting for it all to begin. He said he knew something big was going to happen, but he did not know what it might be. His skin felt funny. As labor began, he describes his position changing and sensed a pulling downward. Something around him squeezes him. He feels uncomfortable, and then Jeffrey describes something touching him. The contact feels safe, but Jeffrey describes a constant fear, noticing a lot of noise while this is happening. He is aware of being bundled and that feels good. The next thing he is aware of is the incubator. This client describes his journey with clarity, and simultaneously, he begins to experience a discharging of bodily sensations. The coherence of Jeffrey's story is the beginning of the PPN paradigm's evolution (Chamberlain, 1988).

The case study of Anne strengthens the evolution of the PPN paradigm and the efficacy of Chamberlain's work. While under hypnosis, Anne recalls being inside the womb and listening to her mother tell her sisters that she was pregnant (Chamberlain, 1998a, 2005). Anne's sisters did not want another sibling; their hostility was apparent before and after Anne's birth. Working under hypnosis with Chamberlain, Anne discovered what happened to her prenatally and the tension diminished.

The case study of Ina, under hypnosis, revealed the story of her conception. Her parents were drunk and her father forced himself on her mother. Ina said when it was time for her to be born; she did not want to come. She chose to remain in bliss where it was beautiful and safe.

Chamberlain concludes that a prenate's thoughts are basic human activities. The thoughts are different from formal language. He explains: "I find that babies are equipped to think and are constantly doing so to cope with their experiences, although they are not ready to speak" (Chamberlain, 1998a, p. 8).Chamberlain theorizes that one intention of therapy is to support a prenate's making a new relationship with particular traumas or prenatal imprints.

Ray Castellino

For more than four decades, Ray Castellino has studied, taught, and dedicated his passion to the field of Prenatal and Perinatal Birth Therapy. His reputation has grown, and he is recognized as one of the preeminent experts in the PPN field. His teachings are his research and his students are his subjects. Castellino created two programs to support his work and teach the fundamentals of PPN to professionals (personal communication, December 8, 2001).

Castellino's compassion, presence, and guidance support his clients and students, while creating a safe container for them to re-experience early wounding. The intention is "to heal from unresolved wounds of adverse pre and perinatal imprinting. . . . The skills can only be learned in relationship with others" (Castellino, personal communication, December 8, 2010). Castellino's gifts of Spirit, expertise, and commitment guide a student's learning process in such a way that no one leaves his programs untouched in some profound way.

Castellino developed a 2-year foundation training in prenatal and perinatal therapy. I was a student in two of these trainings. The PPN training is a huge force for lasting change in life and professional skills. For the first time, I felt safe, accurately seen, and resourced. Castellino offers his support to build courage and delve into one's history in such a way that it is possible to differentiate beliefs from truths or responsibilities, while remaining in present time at a pace that is supportive of finding a place of balance and self-regulation. Each student somatically reviews the challenges of her prenatal and birthing experience. Students in the foundation training learn how to effectively assist people of all ages in how to resolve and repattern prenatal and perinatal trauma imprinting. All students are supported to process personal, prenatal experiences thereby creating new resources to deal with old trauma. Practitioners become more confident in their treatment skill (Castellino, n.d.). Castellino's research used in his womb surround process workshops, *BEBA* and *About Connections* is extensive. This information is used in the teaching manuals.

Castellino's second program is *The Womb Surround Process Workshop* (PW). The PW is designed for a small group of people (maximum of seven), who create a

welcoming environment for each of the womb members to have a turn. An individual's turn is decided through negotiating with the other surround members at the start of a session. The negotiation is considered part of the turn. A turn can last from an hour and a half to more than 4 hours. Turn after turn, a particular member(s) senses an internal drive and knows that it is her turn. If two members are vying for the same turn, it is likely that they are re-experiencing a twinning. The focus of a PW is to identify a particular behavior or psychological strain that remains unresolved (Castellino, n.d.).

In my first process workshop, my intention was to experience my birth with grace and ease, which was the exact opposite of my experience. Practitioner skills are crucial for the womb participants. These skills include: BCST; tracking; an understanding of trauma; and the ability to work with the anatomy, including embryology and the workings of the nervous system, while resourcing the individual experience. A subject is supported to reframe the experience creating new imprints. I experienced my mother's fear of giving birth, the secrecy of the pregnancy, the amount of labor drugs my mother was given and my response to anesthesia to name a few. Castellino supported me in the tension field of the forceps delivery. The process workshop is a life changing invitation to regain choice in stuck places.

Dr. Marshall Klaus and John Kennell

Marshall Klaus and John Kennell coined the word bonding (Klaus et al., 1995). This has had a profound impact on the way women are accurately perceived and supported during the birthing process. According to Klaus and Kennell, bonding specifically refers to enabling mothers and babies to come into physical contact shortly after the baby is born (1976). When I interviewed Marshall Klaus, he stated that he could

not comment on whether a bonding relationship is possible before birth (personal communication, October 21, 2010).The position of this study is that not only can prenatal bonding exist, but it is essential for a positive embodiment of life skills.

Klaus and Kennell were the first to identify and integrate a bonding practice in a hospital setting. They initiated an enormous shift in the OBGYN practice in hospitals with the advent of "rooming in," a concept that brings new moms together with their babies immediately after birth. According to Klaus and Kennell, pregnancy, birth, and the perinatal period are times that are the most sensitive and vulnerable for the baby's connection to mom and then the expansive world outside of the womb. This is also a time for reorganization, healing, and possibly the repair of ancestral misgivings.

Klaus presents an example that represents the critical nature of bonding. It is based on the research of pediatrician Elizabeth Anisfeld. Anisfeld "observed that in a poor, stressed, urban population where most of the mothers put young infants in firm plastic infant seats throughout the first year, there was a low incidence of secure attachment at one year" (Klaus et al., 1995, p. 204). In societies lacking industrialization, most babies were carried on the mothers' bodies day and night, and there was very little infant crying. Klaus, Kennel, and Klaus drew "on these observations and the idea that increased physical contact would promote greater maternal responsiveness" (p. 204). The authors note that, "Anisfeld and her associates carried out a comparison study in which one group of babies was carried on the mother's body in a soft baby carrier (Snugli) that gave more physical contact, and another group used firm infant seats providing less contact. When the infants were 3 months old, the mothers using the soft baby carriers were more responsive to the babies' cries and other cues" (pp. 204–205). At 13 months

these same infants went through the Ainsworth Strange Situation Test, and the results were astounding. Ansifeld found that "eighty-three percent of the babies carried on their mother's body in the soft carrier were securely attached, in contrast to 39 percent of the infants from the group that used the firm infant seats" (Klaus et al., 1995, p. 205).

Klaus and Kennell's 1982 study in Guatemala is highly recognized by colleagues as the first randomized controlled trial representing the significance of bonding. The intention of this study was to look at the effects of a continuous supportive companion (doula) on the length of labor and perinatal complications and maternal-infant interaction in the first hour after birth in an obstetrical setting in which mothers routinely labor alone (Sosa, Kennell, Klaus, Robertson, & Urrutia, 1980). Women in early labor with no known medical problems were eligible, and randomly assigned to experimental or control groups. Ninety-five mothers were initially allocated to the control group. Thirty-two mothers were initially placed in the experimental group. After attrition, the final sample consisted of 20 mothers in each group. Marital status, the age of the mothers, the babies' birth weights and sex distributions were consistent for each group.

Control mothers in the study followed the traditional hospital routine, which consisted of monitoring the labor by infrequent vaginal examinations and auscultation of the heart and assistance to the mother during delivery. Electronic fetal monitoring was not available (Klaus & Kennell, 1982).The doulas supported the experimental group. These untrained women were companions to the woman in labor. If the mother experienced significant challenges, including a long labor, fetal distress, or chemical intervention, she was removed from the study. Some of the other challenges were forceps

extraction, caesarian section operation, pitocin administration, meconium, premature birth, stillborn, or evidence of illness.

The validity of this study was questioned. First there were selection issues. There was no mention of the socioeconomic standing or race in either group of the women. The study did not mention how far along in the pregnancy these women were when they were selected, if they had other children, and the positioning of those other children. There also was significant attrition to the study that might have affected the comparability of the two groups differentially. Despite these limitations, this was the most rigorous test of the effectiveness of bonding at the time. The results of the study revealed that the group who used a doula had a much less incidence of labor and birth issues.

A second study by Klaus and Kennell (1982) focuses on contact and enhancing the bonding relationship. Klaus and Kennell state that every parent should be given 30 to 60 minutes of private time to support the bonding experience after birth. It remains clear that extra time helps mothers to attach to their newborns. The mother and infant should spend as much time together as possible. The hope is that nurseries in the hospital will be phased out, and the time spent together will be the focus and a priority.

Thomas Verny

Thomas Verny, psychiatrist and founder of the Prenatal and Perinatal Psychology Association of North America, is considered the grandfather of PPN. An expert on human development, Verny's focus is the study of prenatal and infant brain development. Verny (1987) argues that there is an interaction between the environment and the prenatal brain.

Verny and Weintraub convey practical advice about "how even the most ordinary events can evoke a cascade of biological changes in the baby – not only the brain but also the immune system and throughout the body" (2002b, back cover). Verny educated the mother-to-be about how to prepare space for the newborn, understand the significance of the journey down the birth canal, and how to hold, attune with, and speak to your infant, creating the possibility for conscious parenting.

The stress that the mother experiences during gestation is also experienced by the prenate (Verny & Weintraub, 2002). The UC Irvine team's findings from the latest studies demonstrate "that stressful life circumstances could increase stress hormones measured in the blood—up to 36 percent for ACTH (adrenocorticotropic hormone) and 13 percent for cortisol" (p. 43). The research demonstrated that mothers who experienced greater stress during the third trimester had prenates with heart rates consistent with their mothers'. In contrast, in less stressful pregnancies, the prenate habituates to a similar stimulus, but reacts less strongly.

Trauma during pregnancy, if unresolved, creates an imprint that continues through an individual's lifespan. The ramifications of prenatal injury likely become behavioral. Verny states that prenatal, gestational imprinting potentially can impact the whole life of a person without intervention. For example:

> In the susceptible individual, prenatal stress causes a real rewiring of the brain, setting the stage for stress-prone reactions, from heightened irritability to behavior problems throughout life. . . . Exposure to extreme prenatal stress can increase the risk for a spectrum of developmental disorders, from hyperactivity to autism. (Verny & Weintraub, 2002, p. 43)

Another study concerning teenage pregnancy makes the point more clearly. According to Verny, "the roller-coaster ride of teenage pregnancy sets the stage for negative emotions of which depression is chief" (p. 46). Scientists at Pennsylvania State University discovered that the babies of these adolescents were more likely to receive resuscitation after birth and their Apgar scores were lower.

Verny and Kelly (1981) clearly state that a maternal-fetal bonding relationship does not happen automatically. Rather, "love for the child and understanding of one's own feelings are needed to make it work" (p.78). Verny and Weintraub concur, saying that in order to bond effectively and in attunement, a mother must be conscious that the fetus is continually tuned in to its environment, the womb. They continue to say that extended periods of contact are critical for a bonding relationship. Other characteristics that support a conscious mother-child bonding relationship are: eye-to-eye contact, hugging, entrainment, and breastfeeding.

The Second Field of Knowledge: Biodynamic Craniosacral Therapy

Life is a matter in motion.

-Rollin Becker

The second field of knowledge presents a shift from a biomechanical approach to Craniosacral Therapy, as defined by William Garner Sutherland, to a biodynamic approach as presented by Rollin Becker and Franklin Sills. BCST is the body-oriented foundation of OPB, bringing the concepts of tracking, sensation, pacing, presence, relationship, and felt sense into the client's awareness as agents of health and the healing process.

According to Sills:

> The hallmark of a biodynamic approach is a shift of orientation from the tension patterns and effects of the forces within the human system, to a direct orientation and clinical relationship to the forces at work within the system. Clinical work is then oriented to a resolution of conditional and inertial forces, not to a change in patterning or tensions *per se*. (2010b, p. 11).

Sills believes that human beings are an expression of health, wholeness, and life experience. The spiritual essence, Sills continues, within each of us is called the Primary Respiratory Mechanism (PRM). Theoretically, PRM causes the fluid fluctuation and maintains the best possible balance and self-regulation in the human body. At the heart of BCST is its orientation to health and commitment to the inherent treatment plan (Becker, 1997, 2000; Sills, 2010a).

Theoretically, BCST is a body oriented treatment modality that supports an individual seeking balance, health, and wellbeing in his life. This can range from a person seeking personal growth to an individual with pain, disease, depression, cancer, anxiety, and infertility to name a few. This hands-on therapy is subtle yet profound, therapeutic modality that, in theory, guides the development of a relationship between the practitioner and the "Inherent Ordering Principle." This noninvasive body oriented treatment modality is believed to assist the Central Nervous Systems (CNS), including the spinal column and the brain. Emotionally, BCST is believed to influence deep patterns of resistance or discomfort by developing internal and external resources that help the client to embody more deeply as it builds a safe space for the resourcing to continue. Theoretically, BCST enables a client system to come closer to the original blueprint of wellbeing.

William G. Sutherland, DO: (1873–1954)

More than one hundred years ago, Dr. William Sutherland, a student of Andrew Still, proposed that, contrary to the teachings of his time, the sutures of the cranium are beveled for movement. For generations, anatomists, allopathic and osteopathic practitioners taught that the cranial sutures were fixed and immobile. At some point, Sutherland observed the similarity between the gills of a fish and the beveling sutures in the cranium. He stated, "the thought came to me, 'beveled like the gills of a fish and indicating a *primary respiratory mechanism,'* not only struck me, it stayed with me" (Sutherland, 1990, pp. 3–4).

Sutherland experimented on his own body to discern the meaning of mobility and motility of a body's bones, organs, membranes, and cells. He did this by immobilizing each body part, because he believed that each part had a midline, direction of movement, and expression of health. Sutherland's theory stated that each part of the body, including the cranium, has an intention or a blueprint, and the parameters of this movement shifts as a function of one's unique life experiences (Becker, 1997; Gilchrist, 2006; Kern, 2001; Sills, 2004/5, Winter; Sutherland, 1990). The intention, Gilchrist believes, is for the practitioner to perceive the movement of the cranial bones, the membranous tension, fluid tension, and fluid dynamics. He also believes that "in health, every tissue expresses an inherent motion" (Gilchrist, 2006, p. 35). Sutherland asks the practitioner to engage with the patterns expression and bring them into a gentler state of balance, inherent health, and reorganization.

According to Sutherland, there are five theoretical principles that serve as the structure or foundation of Osteopathic medicine:

1. The Fluctuation of the Cerebrospinal Fluid
2. The Reciprocal Tension Membrane (RTM)
3. The Motility of the Neural Tube:
4. Mobility of the Cranial Bones
5. The Involuntary Movement of the Sacrum between the Ilia

Each of these five principles will be described in turn below.

Sutherland's interpretation of *fluctuation* is the movement of the cerebrospinal fluid. This fluid, he believes is what the practitioner palpates as pulsation. Sutherland's description of this fluctuation is: "a thought strikes him that the cerebro-spinal fluid is of the highest known elements that are contained in the body, and unless the brain furnishes the fluid in abundance, a disabled condition of the body will remain" (1990, pp. 13–14). Sutherland believed that the driving force of the fluctuation of cerebrospinal is its potency or vitality. He proposed that a system's potency is an expression of spirit or the breath of life. Sutherland's theory asks the practitioner to "rely upon the tide" (1990, p. 14). He invites the practitioner to come into relationship and contact the client's fluid system with presence and patience. This contact enables the practitioner to listen to the subtle nuances of the breath of life and how health is being expressed.

Sutherland's theorizes that the Reciprocal Tension Membrane principle has two parts: the reciprocal tension membrane (RTM), and the fulcrum. Sutherland describes the mobility of the RTM using the example of tug of war with a team at each end of the rope. The rope represents the RTM, which remains in constant tension while being tugged in opposite directions. Eventually, the rope settles into a balance point or a still point. The fulcrum is the still point around which the RTM orients. Understanding the RTM is

important because the negotiation of the client-practitioner relationship, Sutherland believed, is one of truth and respect, listening to the system's story and what may be important in a single moment to support the expression of health. He says, "you, as an intelligent technician, or engineer, of the human body, can detect the tone, the rhythmic tone, in the reciprocal tension membrane that is operated through the fluctuation of the Tide through your thinking, feeling, seeing, knowing touch" (Sutherland, 1990, p. 14).

The motility of the neural tube refers to the movement of the central nervous system (CNS). Early in the embryological development, the neural tube develops and remains a tube-like structure throughout an individual's life. As the embryo develops, the motility becomes more obvious. According to Sutherland:

> This motility has a mechanical function in the operation of the primary respiratory mechanism. Therefore, the neural tube has mechanical action as well as the neurophysiology that is the function of carrying messages. The mobility of the bones of the skull is accommodative to the motility within the brain and spinal cord and to the fluctuation of the cerebrospinal fluid. (1990, p. 19)

There is a dual movement: up and down, out and in. According to Sutherland, "the spinal cord moves upward, like a tadpole's tail, during inhalation and drops downward during exhalation" (Sutherland, 1990, p. 19).

The mobility of the cranial bones theory states that the bones of the cranial vault are connected to the dural membrane (dura matter). The boney movement is therefore in direct relationship to the motility of the reciprocal tension membrane. According to this theory, the positions of the cranial bones are indicative of the cranial base patterns, which

are the core structural patterns that directly influence the movement of the body in its entirety.

Sutherland's fifth principal suggests that the movement of the sacrum between the ilia is involuntary. In other words, the sacrum responds to the reciprocal tension membrane as well as the fluctuation of cerebrospinal fluid. Gilchrist (2006), suggests that a skilled practitioner learns to palpate these features, while listening carefully to the nuances of the primary respiratory mechanism and the fluctuation of tidal movement. Whereas Sutherland's focus was primarily to manipulate bones to change the body's functioning, BCST as indicated by Gilchrist's theory suggests that a more recent adaptation of BCST is to acknowledge the body's energetic forces. Working with the energetic forces facilitates working more deeply and enables greater efficiency and vitality. Gilchrist suggests that working with the body's energy fields reinforces the practitioner's relationship with the prenate, including the embryological development of the fetus.

Franklyn Sills

Sills theory of BCST is strongly influenced by Rollin Becker's theory of biokinetic and biodynamic life forces. These forces are, in theory, a way of holding energy cysts or patterns of compensation due to trauma (Sills, 1989, 1996, 2001a, 2004/5, Winter, 2006, 2009, 2010a, 2010b, 2011). Michael Kern, a student of Sills, describes it this way: "the emphasis in Biodynamic Craniosacral Therapy is to help resolve the trapped forces that underlie and govern patterns of disease and fragmentation in both body and mind" (Kern, 2001, pp. 2–3).

Theoretically, Sill's believes that biodynamic craniosacral therapy is a modality that integrates osteopathic studies and the practice of energy medicine. Sills details practitioner skills, which become more sophisticated and stronger with professional experience and time. He explains, "the heart of clinical practice is one's own state of presence, the clarity and safety the relational field one generates, the ability to orient to and perceive the underlying forces" (Sills, 2011, p. 1).

Theoretically, BCST engages a connection to the body's expression of health. The inherent health of a client system is never lost. Instead, it is compromised by life experience that is physical, mental, emotional, and spiritual. When there is trauma, ideally we would want the force of the trauma to go in one side and out the other. However, typically a biokinetic force, coming from the outside enters the body and fragments leaving many energy cysts of biokinetic force. What Sills, Becker, and others have taught suggests that in the core of this energy cyst is inherent health, called biodynamic force (Becker, 1997, 2000, 2001; Sills, 1989, 1996, 2001a, 2001b, 2004, 2004/5, 2006, 2009, 2010a, 2010b, 2011).

The BCST process is taught to practitioners in a specific way. Sills tells the practitioner to remain present and neutral while waiting to come into relationship with the small kernel of health at the core of any compensation. The BCST practitioner is taught the appropriate palpation skills to contact the trauma without throwing this individual into more trauma. A practitioner cannot fix or cure these traumas, because they are not viewed as being wrong. Compensation is therefore not something to be changed, but rather it is the best this individual's body can do in that moment with whatever resources it has. The practitioner's palpation skills guide her to notice how a client's body holds a shape or

pattern of experience. The practitioner's palpation skills enable her to "see" or sense the subtle movements of cells, bones, organs, membranes, and the nervous systems. In other words, the observant practitioner is receiving a plethora of information. A skilled practitioner learns how to read the nuances of the tide, determine the patterns and shapes in the system, and pinpoints where it is safe to work. The practitioner must also intuit where it is unsafe to work because unsafe zones indicate that the client does not have enough resources. The skilled practitioner knows to ask her client in advance whether she is comfortable with physical contact.

What is important, then, is the practitioner's deep understanding of trauma in the nervous system; knowing how to read it, pace it, and change its timing, determine whether it is over or under-coupled (Levine, 1997, 1999, 2006a, 2006b, 2008, 2010; Levine & Kline, 2007). Our bodies cannot go from trauma to health in one step. BCST is the peeling of an onion, while titrating between the healing and trauma vortices. Whatever the client's system holds physically, it also holds emotionally. Each imprinted experience reinforces the compensations that the body is already holding. By carefully pacing the unwinding of a pattern, the therapist can tease apart anxiety or a stress response, trauma, or a life imprint in the client system (Becker, 1997; Kern, 2001; Sills, 2004).

Sills encapsulates the description of osteopathic medicine as a holistic approach to healing. He perceives the body's healing as an inter-expression of body, mind, and spirit. Sill's teachings propose specific practitioner skills that enable her to maintain dynamic presence. Sills believes that a practitioner should have the skills to carefully negotiate a

relationship, remain in present time, and determine the system's pacing, which is unique to each individual.

Theoretically, the healing process, according to Sills, demonstrates how health manifests in the client's body, and how the system expresses the story through patterns of life force. According to Gilchrist, "at the essence of craniosacral therapy, life begins to teach us about itself. The functions of life take place as energy dynamics first, and later express as fluid" (Gilchrist, 2006, p. 4).

Rollin Becker: (1910–1996)

Rollin Becker, a student of Sutherland's, believed that biodynamic osteopathy resides in a body's ability to settle into Stillness, and this Stillness has tremendous potency. "a dynamic stillness full of potential and a stillness that one can learn to palpate as surely as one can palpate motion" (Becker, 1997, p. xviii). Becker believed that life expresses as motion and stillness. Stillness is not still at all. Healing happens in the stillness. Becker stressed that the practitioner must learn how to be present and listen. Becker stated that learning how to perceive and listen enables the practitioner to honor the body's gift in accessing self-regulation.

Becker's theory also focuses on the significance of the inherent treatment plan. The plan orients practitioners to pay attention to the healing forces that emerge physically and are tracked through the anatomy. A skilled practitioner simultaneously tracks the emotional and spiritual energy forces held in the client's body as patterns or shapes of experience.

Becker believed the client system was a laboratory for practitioners to both observe and learn. In this theory, the body is not broken and therefore, does not need to

be fixed. Health, albeit a kernal, is always held at the core of any inertial fulcrum. Becker's theory outlined a three-step healing process that emerged as a systemic, holistic shift.

Sills theory of BCST reframed Becker's three step healing process for BCST. The three steps are (a) seeking, (b) settling and stilling, and (c) reorganizing and realigning. The three steps are described more fully below.

In the first step, the practitioner seeks to orient and ground, while connecting with his midline. Contact is negotiated through the physical and energetic contacts, while remaining neutral. Sills explains the first step more clearly: "after the holistic shift has deepened, healing decisions are initiated by the potency of the Breath of Life, and an inertial pattern and its fulcrum may begin to clarify" (Sills, 2011, p. 227).

In the second step, Sill's theory states that the system accesses a state of balance, and the practitioner comes into relationship with the fields of potency, fluids, and tissues as they settle. The tensile factors of the RTM pull back and forth until there is settling and a balanced stillness that resonates through the entire system, deepening and neutralizing throughout all the layers of fluid and tissues.

The third stage is about reorientation, reorganization, and realignment. Becker believed "As inertial forces are processed, the body's cells and tissues will reorganize and realign to natural fulcrums and the midline, and tissue motility will be expressed with greater harmony and balance" (Sills, 2011, p. 229). The client system deepens into stillness.

Ray Castellino

Ray Castellino is a visionary leader and an innovative teacher whose intention and commitment to the human spirit enables a student to transform physically, emotionally, mentally, and spiritually. Within the context of a prenatal and perinatal foundation training, Castellino entwines the theory and skill set of BCST. Castillino believes that PPN and BCST mutually support an individual at any age to receive accurate reflection, respect and compassion.

The theory supporting Castellino's Prenatal and Perinatal training and process workshops is based on an integration of BCST and PPN. Castellino believes that the blending of these two modalities would actively support a student or a client to re-experience and reframe early wounding as far back as ancestral and transgenerational imprinting. Castellino's belief is that BCST supports, resources, and builds a safe container for a client's to process early trauma. These two modalities are intertwined in such a way that the student can work at a slow enough pace so that health can manifest systemically and the healing process can remain in present time.

The intention of Castellino's program is to empower the practitioner by inviting her to explore her personal stories of conception through birth. An understanding of this early time engages the practitioner to notice where current behaviors and ideas originate. Castellino's training is somatically based. Each practitioner must have exposure to BCST in some form, whether the exposure is an introductory weekend or the complete training. Practitioner skills, such as presence, pacing, neutral, midline, holding a safe container, and negotiating relationship, occurs over a lifetime of practice. Ultimately, the gifted practitioner can identify, support, and repattern early imprints. This type of intervention

is essential for reframing both psychological and behavioral early prenatal information (See Appendix X: Castellino training flyer).

The Essence of Embryology

The study of embryology is significant to the biodynamic craniosacral therapist because the embryo is completely human from conception (Kennedy, 2003a). Kennedy believes that if we become grounded in or more aware of embryology, this will give craniosacral therapists a window into the human form and help practitioners to understand the transmutation process. In theory, the transmutation is the process whereby the potency of the Breath of Life shifts from "the fluid of the fertilized ovum, and then by the tissues of the embryo" (Kennedy, 2003b, p. 10). Craniosacral therapists believe that our tissues continue to reflect what happened in our earlier life, and with a deeper understanding of embryological development we can support our clients to resolve prenatal issues (Kennedy, 2003b).

Biodynamic craniosacral therapy offers the practitioner an opportunity to take a new look at embryology and recognize that "our embryological development directly repeats our evolutionary development" (Kennedy, 2003b, p. 11). Kennedy believes that the relationship between BCST and embryology allows a practitioner to understand the coherence of human form beginning prenatally. The prenate's embryological development theoretically informs the practitioner and client in each moment. Clinically, "if we can orient to these particular embryological processes within us, we can come into a more direct relationship with them" (Kennedy, 2003b, p. 10). This window also gives a practitioner an opportunity to safely intervene with the maternal-fetal dyad, and arrest a lifetime of behavioral and psychological issues.

The Third Field of Knowledge: Trauma Therapy

Theoretically, according to Peter Levine, the impact of trauma is not simply a psychological or a medical issue. Trauma, Levine believes, is a body-mind experience. Trauma presents itself as one's mind is being altered. The consequences of trauma have profound implications for the quality of one's life (Levine, 1997, 1999, 2008). Fortunately, people are resilient, and trauma does not fatalistically determine their life outcomes. In other words, "trauma is a fact of life. It does not, however, have to be a life sentence" (Levine, 1997, p. 2).

The third field of knowledge presents several experts who prescribe unique components of trauma theory, supporting OPB. Peter Levine is an internationally renowned teacher, guest speaker, mentor, and the originator of trauma theory and somatic experiencing (Levine, 1999). The second individual, Dr. Diane Heller is the originator of the program DARe, Dynamic Attachment Re-Patterning Experience, and teacher of somatic experiencing in adult attachment (personal communication, August 2, 2011). Dr. William Emerson is the originator of Somatotropic Therapy. He believes that there is a relationship between the topological schemas in the adult with specific phases of embryonic morphology (Emerson, 2002). Robert Scaer discusses prenatal sentience and the potential for prenatal trauma (Scaer, 2005). Klaus and Kennell studies on bonding also reflect what happens when bonding prenatally does not exist (Klaus & Kennell, 1976; Klaus et al., 1995; Klaus & Klaus, 1998). Alan Schore (2001a), presents his theory on the impact of attachment as it relates to the presentation of the maternal-fetal dyad.

The work of each of these individuals has granted practitioners more options in exploring and finding resolution to trauma occurrences. Trauma therapy, somatic

experience, and somatotropic therapy are considered ways for practitioners to comprehend that while the mental states cannot be overlooked, they are secondary to the expressions of the body (Emerson, 1994; Emerson, 2002; Heller & Heller, 2001; Levine, 1997, 1999, 2010). As with the other fields of knowledge, trauma research is through observation and case studies.

Peter Levine

Peter Levine has been researching the nature of trauma for more than 40 years, initially with animals in the wild and later with human beings. The inventor of Somatic Experiencing, a keystone to his work is "'the power of kindness'" (Levine, 2010, p. xi). Levine was injured in a car accident, and this experience forced him to pay attention to his own healing process, physically, emotionally, and spiritually. The container for the healing is best supported by the presence of another compassionate, human being. Levine states, "the power of goodness – in this case, the organism's innate capacity to restore itself to health and balance –is encouraged by a bystander, an empathetic witness who helps to prevent by embodying kindness and acceptance" (Levine, 2010, p. xi). From a BCST perspective, this goodness or kindness as Levine names it, enables an individual's body to remain in present time, resourcing, which prevents the system from shutting down. Peter Levine claims that the understanding of trauma includes the study of behavior and psychology.

What makes Levine's theory innovative is his consideration of the entirety of human experience. While acknowledging the psychology of a trauma, Levine argues that it is likewise a response from an individual's Autonomic Nervous System (ANS). Somatic Experience theory suggests that a human body contracts to protect itself when

there is threat, suggesting resilience in the fabric of the human body, including tissues and organs, communicates with the mind, whereby the contraction is not only a protective device, but what centers the contraction is a biodynamic force or the health as defined in BCST. Levine claims that "recent revolutionary developments in neuroscience and psycho-neuro-immunology have established solid evidence of the intricate two-way communication between mind and body" (1997, p. 2).

Traditionally, psychology has worked with trauma as an issue of the mind. Levine's visionary discoveries present both the body and the mind as integral components of a naturalistic approach to resolving trauma. The decade of the brain, the 1990s, reinforced the belief that trauma was not simply a function of the mind, but also incorporates the human brain and neurophysiology.

According to Somatic Experience theory, a trauma imprint is thought to exist in an individual's nervous system and not in the particular event experienced (Levine, 1997, 1999, 2010). Unlike other mammals, when there is some form of disruption, a human being is unable to differentiate time. Levine proposes that when there is trauma, a human will act as if the past is happening in the present. What Levine is claiming is that trauma is self-perpetuating. It continues the recapitulating cycling crossing generations until steps are taken to contain, disrupt, or interrupt it (Castellino, 2006, 2011; Grof, 1993; Kennedy, 2009; Levine, 1997, 1999, 2010; Montagu, 1962, 1965). In one example, Levine describes a herd of impala grazing. When the wind shifts, the impala become alert, sensing danger, and then goes back to grazing with vigilance. A cheetah leaps to attack, and the herd responds as one organism. One impala trips. Levine describes this moment in detail:

> At the moment of contact (or just before), the young impala falls to the ground, surrendering to its impending death. The stone-still animal . . . is not pretending to be dead. It has instinctively entered an altered state of consciousness shared by all mammals when death appears imminent. (1997, pp. 15–16)

Levine calls this an immobility response, and claims it to be a survival strategy because the animal is in a state of freeze, no movement, and is camouflage. It is thought that in a freeze state the impala or a human goes into an altered state where no pain is experienced. As with other mammals, Levine believes that the physiology is the key healing ingredient. He describes, "the involuntary and instinctual portions of the human brain and nervous system are virtually identical to those of other mammals or even reptiles" (1997, p. 17). Levine's observations indicate that the reptilian brain, or hind-brain, is activated when there is perceived threat. Knowing this, a practitioner can work with a client to discharge the arousal energy. Working in this way is necessary because the residual energy persists in the body, and can develop into a range of symptoms, such as anxiety, depression, or behavioral problems. Without resolution, the layers of trauma became undifferentiated and over coupled.

Levine states that the ability to heal is inherent in human beings. His paradigm identifies the key principles of trauma, which he believes enable a therapist to be a good listener, have the ability to track nonverbal communication, support the client to come into relationship with sensation or felt sense, acknowledge the body as primary, the mind secondary, and embrace the mutual journey of trauma and spirituality. He believes that spiritual healing, as in his personal healing, is essential for the healing process to be completed successfully.

Ideally, the priority in somatic experiencing is to support a client to transform fear and helplessness by becoming aware of physical body sensations. In his most recent book, *In an Unspoken Voice*, Levine says:

> Despite our apparent reliance on elaborate speech, many of our most important exchanges occur simply through the 'unspoken voice' of our body's expressions in the dance of life. The deciphering of this nonverbal realm is a foundation of the healing approach. (2010, p. 11)

Dr. Diane Poole Heller

Dr. Diane Poole Heller, is an internationally known educator, author, and teacher of Somatic Experiencing, a body-oriented approach designed to create resolution in a trauma story. Dr. Heller suggests that with high levels of arousal, the human body readily goes into its biological, survival shape because it does not have resources or options to do anything else. In her DARe model, Heller works with the early patterns in adult relationships, where a client continues to be stuck recapitulating an old scenario. Heller supports her clients to safely release the felt sense of being stuck and shift one's vitality out of collapse to move or change. This method is similar to that used in BCST. As suggested by Heller and Sills, both can be tracked through the nervous system.

While Heller refers very little to the prenatal period, she acknowledges that the break in an adult's dynamic in relationship is a function of what came earlier in life, including prenatal life experience. Our attachment dilemmas, if left unresolved early in life, will remain a source of pain or even crisis in adulthood (D. Heller, personal communication, June, 24, 2012).

William Emerson: The Vulnerable Prenate and Somatotropic Therapy

Somatotropic therapy (Emerson, 2002), is a body-oriented approach to resolving topological schema of unresolved trauma. Emerson's paradigm evolved during the 1970s while working with psychiatrist and theologian Frank Lake. Emerson developed somatic approaches to reveal primal trauma, focusing on the periods from conception, discovery, and implantation, through gestation to birth, enabling him to discover the earliest prenatal and perinatal traumas. Emerson recounts:

> Gradually, I found a precise methodology for working with infants and children to access and discharge an astonishingly wide array of traumas. . . . In the course of my work, a way of reading the face and posture as a cartography of the client's specific pre- and perinatal trauma began to emerge. Using these physical and gestural traces as indicators of the temporal origins of disturbance, I have developed ways of inducing these experiences in the therapeutic context, and thus the means to discharge the compulsive control they exert on characterological behavior. (2002, p. 67)

Emerson claims that the shapes and patterns a body exhibits during therapy recapitulate embryonic development. In theory, Emerson says a therapist can easily ascertain the precise moment of disturbance in prenatal life. One phase of gestation recapitulates all the others, and likewise, a sense of ease of one phase affects all of the others, including at birth. Emerson explains:

> During these intense experiences of any kind (positive, ecstatic, or traumatic), the body enacts certain tonicities, certain postures, and particular movements. When the experiences are overwhelming, the tonicities, postures, and movements are

> unable to be processed by the nervous system and reside in the deeper layers of somatic consciousness until the psyche is ready to confront and integrate the experiences. The tonicities, postures, and movements can easily be observed and accessed at any time with permission. (2002, p. 75)

In his therapy, Emerson works from a belief that the "mind pre-exists the nervous system," (Emerson, 2002, p. 68) and, therefore, intrauterine strategies created for prenatal protection are also necessary for survival. For example, the fetus will experience medical or familial trauma during pregnancy as it develops. Lipton states that ancestral imprinting is in the mother's blood chemistry during pregnancy, and likewise experienced by the fetus. Emerson labels this as participatory trauma. Frank Lake calls this a "toxic womb syndrome" (Speyer, n.d.). Emerson believes that it is possible to heal from this trauma through regressive therapy, and it is easier the younger the client. In regressive therapy, the therapist learns to track the subtlety of the baby's patterning while supporting the family to repattern. According to Emerson, "the effects of prenatal traumatization cannot be predicted without knowledge of other factors and prenatal experiences are likely to have lifelong impact when they are followed by reinforcing conditions or interactional trauma" (1995, p. 1). For example, Emerson describes a baby that he treated who had been stuck during his birthing. As a child, he was also locked in a closet for 24 hours, and held and choked by his brother on several occasions. Emerson points out, "what is important in this case is that prenatal experiences are the grounding imprint for later traumas. . . . life experiences are perceived in terms of prior and unresolved traumas" (1995, p.1). In this case study, the baby being stuck is recapitulated when he is held in a

closet for 24 hours and the several times his brother choked him. This child will perceive each of the events after birth as entrapment.

Emerson's opinion is that without support and intervention, prenatal trauma poses a risk of birth trauma and is likely to interfere with the maternal-fetal bonding. If the prenatal trauma remains untreated, its influence on the maternal-fetal, bonding relationship is disrupted, and the traumatized infant must find a way to protect herself. The prenate negotiates early traumas, and the later experiences after birth, with defensive resources, such as flight, fight, or freeze.

Scaer (2005) states that a fetal brain is fairly well intact by the third trimester. By that time, a prenate can interpret information through the five major senses. Scaer theorizes that the fetal brain can respond to what is happening in the womb surround, such as stress. He claims that many women report an increase in fetal movement when they are under stress. Similar to the beliefs of Emerson and Sills, Scaer is conscious of the prenate's vulnerability.

Klaus and Kennel (1976), claim that the depth of the bonding relationship is a function of the mother's life experiences, the pregnancy, and the mother's ability to function under stressful times. Their concern is the length of time a mother and newborn are separated during the critical time period after birth. They use the term *sensitive period* to describe the first few hours of the newborn's life. Without the contact of the mother and child after birth, there is a likelihood of abuse, animosity, and disregard. Montagu (1962, 1965), concurs claiming that touch is critical to supporting the bonding process.

Alan Schore claims that critical to a bonding relationship are what he terms *gaze interaction* or *transaction* (Schore, 2001a, 2003a, 2003b). This feature is what Castellino

and others have labeled *attunement*. The connection of eye contact is what facilitates normal development, according to Scaer (2005; 2007). This contact is reinforced by skin-to-skin contact and breast-feeding. A mother when breast feeding supports a bonding relationship simply by the physical contact, skin-to-skin, eye contact and a sense of attunement (Schore, 2001a, 2003a, 2003b). Scaer's theory claims that this bonding relationship, if successful, has positive implications for one's life. Specifically:

> In Schore's model, the infant presents at birth a plastic and malleable unfinished genetic template on which life experience will build a behavioral structure. The critical element for the development of this structure is the bonded pairing of the infant with the caregiver, a union that Schore and others have termed the *maternal/fetal dyad* (two-as-one). (Scaer, 2005, p. 119)

The Fourth Field of Knowledge: Conscious Parenting

Conscious Parenting (CP) is the fourth field of knowledge. This revolutionary concept is defined by experts' life experience and study. Their research is derived from subjective observations and experiences. Castellino (2005) and Wirth (2001) acknowledge that becoming a parent is what opened their eyes to look deeper at the strongest influences in an individual's life. Both Castellino and Lipton claim their research is a direct result of their early life experiences and questioning of life. Lipton's discovery of and research in biodynamic cellular developmental biology gives CP credibility based in epigenetic theory.

Each expert believes that the importance of developmental critical periods is relevant to conscious parenting. During the 9-month gestation, the critical periods are integral to the neural development of the prenatal central nervous system. Wirth claims

that energetically these periods are referenced as developmental windows that are irreversible (Castellino, 2004, 2005; Castellino, Takikawa, & Wood, 1997; McCarty, 2004; Schore, 2001a, 2001b, 2003a, 2003b; Siegel & Hartzell, 2003). The specific organizational processes in the embryological development are once only moments that must be met accurately by what is being communicated through the womb surround. Theoretically, Shore claims that the critical periods orient to growth-promoting or growth-inhibition (Schore, 2001a, 2001b; Siegel & Hartzell, 2003).

> In his book, *A New Earth,* Eckhart Tolle (2005), suggests that:
>
> As you look at, listen to, touch or help your child with this or that you are alert, still, completely present, not wanting anything other than that moment as it is. In this way, you make room for Being. In that moment, if you are present, you are not a father or mother. You are the alertness, the stillness, the Presence that is listening, looking, touching, even speaking. You are the Being behind the doing. (Tolle, 2005, p. 104)

This is conscious parenting. Tolle emphasizes, "consciousness is the intelligence, the organizing principle behind the arising of form" (Tolle, 2005, p. 291). Tolle defines CP simply as *being* with your child; that is *being* a parent. He points to an urgent need for humanity to experience bonding before conception, during pregnancy, and after birth. The perception of parenting before birth, the strength of dynamic stillness, the presence of the practitioner and the impact of a relationship that continues throughout a person's life reveal Tolle's understanding of conscious parenting (Castellino, personal communication, October 5, 2011).

Ray Castellino DC (retired), RPP, RPE, RCST

Castellino has been working in the field of PPN and health care for more than 40 years. His unique skills support a safe space for deeper personal growth and understanding. His audience is an integral component of his research. Castellino challenges those he works with to perceive health and wellbeing differently than what was handed to them developmentally. Castellino believes that conscious parenting offers possibility and releases what has been routine. The foundation of Castellino's work is based on the assumption that an individual's behavior is an expression of health. According to Castellino, an individual's behavior is simultaneously an expression of compensation and life experience because at the core of any compensation is health. His theory suggests that one's expression of behavior is the very best that person can do based on his adaptive nature and survival mechanisms (personal communication, December 20, 2010). According to Castellino:

> All behavior and human conditions are expressions of health. . . . Where is the health in the system? Each of us has tremendous capacity to survive and adapt. Adaptation is part of the design for survival. . . . It was present at conception, through our gestation, during birth and as we grew up. (personal communication, December 20, 2010)

Two of the programs Castellino offers theoretically focus on the dynamics of conscious parenting. Each program facilitates individuals, couples, and families to examine, repattern, and resolve the early imprinting, which remains in the nervous system and in cellular memory. Each of Castellino's programs is intended for personal growth, human consciousness, and emotional wellbeing, similar to Tolle's prior

comments on conscious parenting. The two programs are called *Building and Enhancing Bonding and Attachment (BEBA)* and *About Connections*.

BEBA

BEBA (BEBA, 2013), established in 1993, claims to facilitate the wholeness of the family unit. Castellino's theory incorporates a play therapy approach that reinforces family dynamics. For more than a decade, BEBA has examined the revolutionary paradigm of PPN, facilitating prenates, babies, and children in a family setting. BEBA is a learning clinic for professionals, students, and families.

The intention of the clinic claims is to explore how prenatal and perinatal experiences impact family systems and human development. In theory, the clinic develops healing strategies to support individuals to let go of negative imprints from conception, gestation, birth, post-birth, bonding, and attachment. BEBA challenges families to honor and consciously respect with a willingness to be present and devoted parents. Castellino claims that BEBA advocates for babies and children by supporting babies, children, and their families to repattern and heal the early prenatal trauma imprints.

Castellino claims that the scope of practice at BEBA is based on a blending of different modalities and practices including:

- craniosacral therapy skills working with cranial molding;
- craniosacral tracking skills of tracking the client's nervous systems, fluid tide systems, pacing, movement patterns, and states of consciousness;
- the practitioner's ability to work with shock and trauma imprinting;

- the practitioner's ability to identify birth stress, cranial molding, and postural shapes;
- skill in listening, accurate reflection, compassion, and empathy;
- the practitioner's somatic tracking skill;
- ability to work with individuals and families; and
- the practitioner's facilitation skills, boundary setting, resourcing, and self-exploration.

About Connections (AC)

AC was developed in the last two years by Castellino and Mary Jackson, RN, LM, RCST. Jackson has been a home birth midwife since 1995. She has attended more than 2000 births in Santa Barbara, Ventura, and Ojai, California. AC is focused on supporting and educating parents and their babies during gestation and 6 to 9 months after the birth, including conception. They work with families, older children, and adults, offering private sessions to explore early imprinting (Castellino, n.d. , About Connections section).

Mary and Ray provide the following services:

- craniosacral therapy;
- pre conception coaching;
- midwifery with Ray assisting;
- home visits right after baby is born;
- post natal visits
- new parent telephone support for families with infants 3 months and younger;
- photographic and video services of these events for families; and

- private work with adults similar to a process workshop session. Sessions are usually 1.5–3 hours long.

Support Services include the following:

- preparation for conception, the prenatal period and birth;
- the development and use of effective communication skills with medical practitioners so that clients can get what they need for themselves and their babies from their health care providers;
- preparation for Vaginal Birth After Caesarian Section (VBAC);
- labor support at home, birth center, or hospital;
- resolution of cranial molding and other physiological imprints from birth in the infant;
- establishment of healthy, easy breastfeeding habits;
- structural realignment for mom and dad;
- recovery from challenging births;
- support for newborn constipation;
- prevention or recovery from postpartum depression;
- parents and babies with sleeping challenges;
- solutions for feeding challenges;
- services for families preparing for and recovering from infant surgery;
- services families experiencing infant hospitalizations;
- post NICU recovery;
- recovery from breast feeding difficulties;
- establishment of breast feeding even after several weeks;

- exploration of early imprinting with adult clients; and
- the development and strengthening of relationships as adults.

Presently, Castellino and Jackson have completed 120 births with families who completed the AC program. The transfer rate is only 5% to the hospital and, of the 120 births, there were only three caesarian sections. Depending on where in the country a birth takes place, the common transfer rate for midwives is 15–45%.

Dr. Frederick Wirth

Dr. Frederick Wirth was a staff neonatologist at the Reading Hospital and Medical Center in Reading, Pennslyvania and a clinical associate professor of Pediatrics at Tufts University School of Medicine. An expert in perinatal and neonatal pediatric medicine, Wirth focused primarily on the needs of preterm babies. He was also the physician for America's first test tube baby, Elizabeth Carr (Wirth, 2001). Dr. Wirth developed The Institute for Perinatal Education and identified seven factors supporting a successful pregnancy. According to Dr. Wirth, to connect emotionally with your unborn child one needs to release stress, develop a positive flow state, be at her personal best for your developing baby, use her brain and body to become her unborn child's brain architect, communicate effectively to improve your family's health, develop a pregnancy mission statement (Wirth, 2001).

Wirth stated that his real life experience of becoming a parent himself of two children is what opened his eyes to stress and other gestational complications that later may create behavioral and psychological issues for the prenate (Wirth). Wirth states that everything was perfect about the pregnancy and birth of his first child. The pregnancy was calm, and both mother and child remained healthy.

After the birth, his daughter did everything at the right time, including sleeping, defecating, and eating. Wirth's second child was a completely different story. The pregnancy was challenged by a death in his wife's family and the stress that ensued, affecting her mood, appetite, ability to sleep, health, and energy. After his birth, Wirth's son could not be consoled. His temperament was inconsistent, and he was challenged by alcohol and episodes of anger. In his twenties, Wirth's son lost his life.

Because of these experiences, Wirth recognized the value of educating parents during the prenatal period. Looking back on his life, Wirth lamented, "it is so disheartening to know that some of these awful starts in life were preventable" (2001, p. xi). Wirth was doing innovative work even before his son'sdeath. He was dedicated to the little ones who arrived sooner than planned. Wirth's focus on premature births led him to create what he called a "second womb" in the Neonatal Intensive Care Unit (NICU), for the micro-premature babies. Wirth then shifted his theory away from rescuing premature babies and placed more focus helping women carry their babies to term.

Wirth believed that the experience of pregnancy can be enhanced by the guidance and support from resources, including the camaraderie of other pregnant women. When a woman is pregnant and not receiving the kind of support she needs, "there exists the potential for her to experience prenatal maternal stress, a negative psychosocial experience linked to adverse prenatal outcomes" (Armstrong & Pooley, 2005, p. 22). Wirth first became suspicious of the causal link between maternal stress and adverse outcomes for the baby when he was delivering babies and the birth of his own two children which he describes as completely different. For example, he stated:

> I have watched as one infant after another was admitted to the intensive care units I have directed. Each time I wondered, 'What went wrong? Why is this infant here? Can all this pain, suffering, and expense be avoided?' After hours of work stabilizing each of my tiny, frail patients, I returned to their mothers' charts and talked with their concerned obstetricians and families. . . . If only the mothers knew more. . . . The necessary knowledge and skills, these tragic events could have been prevented. (Wirth, 2001, pp. xii–xiii)

According to Wirth's theory, the outcome of pregnancy is not completely dependent only on medical care. Gestational quality is also a function of parental psychological and spiritual content. The expectant parents have the ability to manage the risks that may adversely affect their newborn. The intention of Wirth's book, *Prenatal Parenting* (Wirth, 2001) was to teach couples about preventing families from having to encounter some of the most common and obscure happenings. The exercises he developed enable women and their families to gain self-confidence and maintain their own health and that of their unborn baby.

Wirth believed that the role of a parent has its challenges and possibilities offering the unborn baby the magic of love. He summarizes this realization by highlighting that, "the word *pregnancy* means an abundant time rich with important possibilities for you, your family, and your unborn child" (Wirth, 2001, p. 9). In self-reflection, Wirth acknowledges:

> I now realize that I missed a great opportunity both for me and my children. I should have switched from being the worried provider to being the nurturer for my wife and developing child. Like most people, I didn't know about the amazing

capacity of my children to receive love while developing in their mother's womb. There are so many ways we parents can love and nurture our unborn children. (p. 5)

Wirth offers data from animal and human research on the effects of stress on the maternal-fetal dyad. The limitation of animal research is that the brains and placentas differ among species. Animal research is not necessarily generalizable to humans. The limitations must be pointed out when known however, we can still learn a great deal from animal research. Animal data consistently shows the negative impact of stress on pregnancy outcomes. Wirth's focus is specifically on the high incidence of preterm births as well as the lower weight at birth in humans. However, this research has certain limitations as well. Below are some of the potentially confounding variables:

- the tools available are not sophisticated enough to measure and quantify stress;
- other variables in human data ameliorate stress affect with meditation, managing fear, and lifting self-esteem; and
- most stressed humans have other outlets, including smoking, drinking, or drugs. These risky behaviors may be caused by stress and adversely affect the outcome (Wirth, 2001).

Wirth comments that what we do know from the animal studies is that "prenatal stress can permanently alter the newborn's stress response, but proper mothering immediately after birth can ameliorate this adverse condition in the brain and neuropeptide system" (2001, page 56). This is demonstrated in the research where rats in one study and monkeys in another study are exposed to maternal stress prenatally.

Rat data

In a recent rat study, researchers randomly allocate one group of pregnant rats to a stressful environment and another to a non-stressful environment. This study demonstrates that when a mother rat is stressed, the pup is also stressed. The stressed pups had visible changes in the neuroendocrine system as well as the hippocampus. Observations suggest that the stress response of the pups lasted well beyond the prenatal period. This same experiment demonstrated that stressed pups developed hypertension later in life.

Wirth comments that it is challenging to generalize from rats to humans. However, this research indicates that when there is stress during pregnancy there is also the possibility of changes in the fetal brain and hypervigilant system. This research might have implications for humans.

Monkey data

Research on primates demonstrates that prenatal stress is an element that predisposes young monkeys to aggressive behaviors. If a monkey is not appropriately parented prenatally, their brains did not develop the same and brain damage is likely. This is further examined by a brain research scientist, Dr. Clark, who took pregnant rhesus monkeys out of their cages. They were exposed three times a day to unpredictable loud bursts of noise. The result was a stress reaction in the monkeys who had been separated out together with increased blood levels of stress neuropeptides in their fetuses. The prenatally stressed monkeys were examined "after birth showed extreme stress exaggerated emotional outbursts compared to the control group who had not been stressed" (Wirth, 2001, p. 58).

Human data

Wirth claims that when a mother is stressed and she is able to resource herself to diminish the neuropeptide surge, she is able to maintain self-regulation, and washes her unborn baby's brain with comforting neuropeptides. Wirth claims that resourcing supports both the maternal and fetal brains. He warns however, that without proper resource supports, the stress that the mother experiences are transferred to her fetus through the blood and the mother's chemistry. Mary Schneider, at the University of Wisconsin, found that stress neuropeptide levels increased in a fetus if her mother was exposed to significant stresses during pregnancy (Wirth, 2001).

Further studies caution that a lack of resource supports and bonding have negative postnatal consequences for the infant. Wirth reports a case study of Dr. Heidi Als at Harvard Medical School. Her research showed that premature infants who are not nurtured when they are placed in neonatal intensive care (NICU), had lower school performance and slower neurodevelopment. On the other hand, the premature infants who are nurtured in the NICU performed better in school and on psychological testing. Specifically, "their emotional responses to other children were better modulated. They were less impulsive, had better-organized motor behaviors, and were better able to concentrate and complete academic tasks" (Wirth, 2001, p. 61).

Bruce Lipton

Bruce Lipton, PhD, is a visionary scientist in the field of developmental cell biology. Dr. Lipton recently introduced the anticipated paradigm shift, which ranges from the microcosm of the cell to the macrocosm of the mind. This new paradigm states that our beliefs have kept us captive, powerless, and victims of our heredity. Our beliefs

maintain a perceptual field that is very narrow, and as a consequence, we continue to live at status quo. Lipton's new paradigm claims to navigate the turbulence that we are experiencing and asks that humans become more conscious of the bigger picture (personal communication, June 27, 2012).

Lipton's research began with cloning stem cells, in the mid-sixties, in order to understand a cell's control mechanisms (personal communication, June 27, 2012). This study began at the University of Wisconsin. His research revealed that when separated and isolated, each stem cell develops differently based on the environment in which it is placed. Another Lipton study demonstrated that when there is disease in one's cellular structure, it is not a function of genetics. Instead, Lipton argues that disease in one's cellular structure is in response to external circumstances. Lipton's research reveals that the concepts of nature-nurture are outdated and conscious or the external environment trumps the nature-nurture paradigm. Epigenetics affirms the significance of the environment. "that genes were turned on and off, not by the genes themselves, but through external environmental stimuli. These radical findings ran contrary to the long-held assumptions of genetic determinism" (Lipton, 2005, p. 157). Recognizing the role the prenatal environment plays in creating disease forces a reconsideration of genetic determinism. Lipton maintains through the science of epigenetics that the human body is capable of self-healing.

Lipton's theory suggests that embryological imprinting continues during a child's life if there is no intervention. Conscious parenting states that it is possible to reshape the human gene by switching on and off a genetic imprint and make available alternative

options to guide an individual's relationship with the environment (personal communication, June 27, 2012).

In summary, there is always a tug of war between nature and nurture. People's genetics and their environments work together to influence their life outcomes. Dr. Peter Nathanielsz states that it self-evident, "that the quality of life before birth is important for our health" (Nathanielsz, 1999, p.91). Recently, an even wider range of adult-related chronic disorders, including osteoporosis, mood disorders, and psychoses, have been intimately linked to pre- and perinatal developmental influences (Gluckman & Hanson, 2005). In examining conscious parenting, Dr. Lipton believes that environmental influence cannot be ignored. Lipton explains how epigenetics impacts pregnancy may begin well before preconception and continues to be expressed throughout gestation and an individual's lifetime, giving an individual a continuum of choices. This means that parents can consciously prepare themselves and their home to welcome their little one (personal communication, June 27, 2012).

CHAPTER 3

RESEARCH METHODS

"*Perception is regarded as the primary source of knowledge, intentions and sensations"*

(Moustakas, 1994, p. 2)

Chapter 3 describes the study and methods used for my dissertation. I explain the rationale for selecting an heuristic design, including my own prenatal story together with the critical aspect of the 8 years when I was trying to have a baby. These experiences gave me a first-hand education about the necessity for support and health to avoid dysfunction and violence. There is no prior research on somatic aspects of prenatal bonding relationship or the necessity of a practitioner's resources to actively support the maternal-fetal bonding relationship. This research is a pilot study that presents the process I developed over the past 20 years, which I call OPB.

Rationale

The rationale for using a heuristic research design is that this method allows the researcher to examine the human experience of relational prenatal bonding. The OPB process fills a gap in the literature where a somatic understanding of the maternal-fetal bonding relationship is critical. The paucity of data is especially concerning, considering

new parents desire to understand and support the prenate's relational opportunity and intention. Because this inquiry is self-reflective, it demands the voices of all of the subjects, as co-participants and co-researchers, together with my expressed passion.

Research Design

This dissertation utilizes an heuristic or qualitative research design and presents as subjective content. *Heuristic* is a Greek word that means to discover or to find (Moustakas, 1990, p. 9). Heuristic research is a means of studying the human experience. Clark Moustakas (1994), developed the heuristic style of research, with an intention to focus on investigation, self-discovery, self-awareness, and self-disclosure. Moustakas claims that heuristic research requires that the researcher, in this case the practitioner, must have personal experience with self-discovery and commitment to the issue at hand. Specifically, heuristic research demands that the researcher possess the commitment, integrity, passion, and desire to understand an area of study that requires long hours of attention and intention. The researcher maintains a focused intent even if that requires her to face painful issues. The passion possessed by a heuristic researcher endures personal transformation herself while supporting her subjects, or co-researchers, to deepen into and explore their old wounds that require their attention (Moustakas, 2001).

The intention of this heuristic research study is to ask each participant to experience the therapeutic and educational process specifically created to actively support prenatal bonding. At the end of the study, each participant has an opportunity to evaluate her experience.

Personal Reflections

My personal experience, including prenatal and fertility issues, bonding, professional work with others, and personal therapy offered me direct experience, and this was integral to the 20 years I spent developing the OPB process. Thus, my personal experience supports the choice of an heuristic research paradigm.

Studying and receiving somatic therapies, as a client, I began to become aware of the many choices that could have served as relief from the early wounding. The recapitulations of my life experience were indicative of my prenatal trauma and imprinting. Talk therapy, including 15 years of analysis, proved helpful, but the struggles continued in my body.

Some of the important highlights of my prenatal trauma and imprinting follow below. My conception was planned and synchronized with both of my mother's sisters-in-law. My father had mixed feelings about having a second child at that time. My mother miscarried before I was conceived and, therefore, she later complained of being pregnant with me for more than a year. She had anxiety about having two children and was fearful of my father's infidelity. My conception raises questions of timing, direction, inside-outside orientation, emotional fear, anxiety, and double-binds.

As previously mentioned, just prior to my conception, my mother conceived another child and had a miscarriage. She then conceived immediately with me. It is typical for a mother to be more concerned about a pregnancy after a miscarriage. She holds the fear of loss. Because my father was not "ready," I was initially kept a secret. As the pregnancy continued, my mother had a fear of my father's infidelity because she

would now have two children. My mother's anxiety and fear about my father has influenced me as well as my two sisters uniquely.

Because the fetus is merged with its mother during gestation, whatever the mother experiences so does the fetus. In my mother's womb I was aware of her anxiety and fear of having a second child. My mother's desire to hold on to me just one more minute made me feel both responsible for her and as if I was drowning. The push-pull left me confused, wanted but not wanted, safe but not safe.

In the fifth month of pregnancy, my twin brother died. When a twin dies, the remaining prenate does not know whether it is alive or dead because it is merged with its sibling. This loss has a profound impact on my life. I have been in search of the beloved, my brother, since that time, and the depth of this longing has followed me into many relationships.

The impulse for me to be born was from my mother's nanny who told my mother that if she did not give birth now, I would die. My mother was given caster oil to induce labor. When my mother arrived at the hospital, she was given a drug cocktail, typically used in the 1950s, that included scopalimine, which has been shown to have long-term effects. Whatever the mother consumes so does the baby. This cocktail along with other anesthetics, forced me into a state of shock. My mother was also given Pitocin to speed the contractions and the birth. Essentially, this drug forces a baby to be born before she is ready. Her pacing therefore comes from an external stimulus and not of her own will. There are a series of challenges that this inside-outside confusion creates.

The themes of time and death are deeply imprinted because of my birth experiences. During my birth, I felt as if I were drowning. I heard a doctor say that there

was not enough time and if I were not born now, I would die. At some point I collapsed, went into parasympathetic shock, and gave up. I was resuscitated at birth. The doctor pounded my chest to get my heart started, fracturing the manubrium.

During the delivery, the doctors misplaced the forceps, crushing my olfactory nerve and damaging my right eye. The forceps turned me in the opposite direction I was going, leaving me with a life of directional confusion. The instrument was removed and replaced, and I emerged flaccid.

I was placed in the NICU for 2 weeks. I do not know if I saw my mother until I was allowed to come home. Being separated from one's mother immediately after birth then placed in an incubator has consequences. Without contact, there is disorganization for the baby and no connection. Bonding is a continuity of time and therefore the dynamics of birth and after birth are directly impacted by the type of delivery and whether or not the baby is given the opportunity to scoot up and latch to the mother's breast. Often the umbilical cord is not cut until then. All the work a little one has to prepare to be born is snagged when the medical person interferes. There is an abrupt interference in the sequence and therefore in the mother child bonding relationship. No bonding equals trust issues together with inside-outside confusion. Because of all of the interferences that occurred, I developed disorganized attachment. Without immediate bonding there is a loss of attunement and connection is replaced by a sense of abandonment. With my birth, or a C-section for example, the disruption after birth has profound implications. Throughout my life there have been times where my body remembers the synchronicity of sensations that accompany being left alone after birth.

My journey to become a mother affirmed the challenges imposed by the medical community on prenatal gestation. This is exaggerated if a woman is unable to conceive naturally and has to rely on fertility drugs together with in-vitro fertilization. My journey, like most, was all consuming, and having a child became a job.

Several profoundly apparent things came out of this quest. First, our culture is attached to the outcome and not the process. Waiting rooms in doctors' offices were filled with women who were willing to do anything to have a child, many paying little attention as to how this might affect their babies. The fertility doctors were primarily men who said to me on several occasions, "I can make a baby for you." No time was offered describing the nature of gestation and how the process of spinning and cleaning sperm, for example, would affect the child's later behavior.

I had several miscarriages. No one suggested that I stop or take a break in between the cycles. No one informed me of the distress my body was enduring and future potential consequences. Most of what might happen to a woman from using fertility drugs was denied. Doctors encouraged repeated protocols, and if the pregnancy was lost, the doctor and staff stopped cheering and their support was dropped. The result is profound. Unless one has had the IVF experience, there is absolutely no way a person can relate. IVF consumes daily life. I spoke with a woman who had been doing repeated cycles for more than a year. She sounded confused, disoriented, and the pacing of her speech was fast and jagged. I asked her whether she had taken a break between cycles, and her response was "you mean I am allowed to do that?" She thanked me profusely, and a month later she began the OPB process, realizing that her body was in shut down. The OPB process was created from clients such as this.

My desire to become a mother together with my prenatal experience was the foundation upon which I developed the process being tested in this dissertation. My experiences informed my research question and support the choice of the heuristic methodology.

The Study

I developed the OPB process over a period of 20 years. This process is a result of my efforts to understand human nature, specifically the implications of the prenatal period. My learning came from personal experiences, education, and the gifts I have received from Spirit.

The aim of this study is *to identify what are the activities that support prenatal bonding between the mother and prenate and the development of a somatic conversation between mother and prenate*. The bonding behavior includes the felt sense of bonding, negotiating the maternal-fetal relationship, and the meaning of being present. A practitioner learns how to actively support a pregnant woman to bond with her baby in-utero and achieve mindful mothering.

I worked with 5 subjects in this study, each of whom participated voluntarily. I gathered information initially via an intake form and later had the opportunity to observe and explore their life experiences, working both somatic oriented work and talk therapy. The subject's responses were recorded after each session in case notes and later documented using heuristic methodology and an evaluation questionnaire specifically developed for this pilot research.

The Intervention Process

The OPB Process brings together four fields of practice mentioned in Chapter 2, which I call the four fields of knowledge: PPN, BCST, TT and CP. Each field offers a distinctive and significant element in this multilayered paradigm, all of which are present and active at the same time. Like the Breath of Life (Sutherland, 1962; Sutherland, 1990), the components of the OPB enfold and unfold simultaneously and constantly. The practitioner must have the training and experience to track all of the layers at the same time while holding a safe container at a pace that works for the client throughout the session.

Through bodywork and conversation the subjects first come into a core relationship with themselves. This occurs through learning skills for resourcing, tracking body sensations, coming into relationship with inside-outside orientation, and developing the ability to differentiate patterns and imprints of their ancestors. Often the subject discovers that certain patterns of behavior they have indulged belonged to another member of the family.

Each of the participants had a minimum of one session a week. Sessions lasted from one hour to an hour and a half. The initial session, the intake session, typically lasts one and one half hours. After the first session, the following sessions can run between an hour to an hour and a half.

All sessions incorporate both talk and bodywork therapies. All of the participants learn how to track their own systems and experience the felt sense or sensations related to emotions or a nervous system release. This new awareness enables each participant to come into a more resourced relationship with prior trauma and generational history. A

subject may be confronted with personal or ancestral history during the sessions, and this history can be transferred to the developing prenate. Each of the 5 women explored how they were holding their personal trauma, such as ineffective bonding, physical and emotional overwhelm, and disease. Subjects learn to track internal movements as well as sensations, which facilitated the letting go of trauma.

Finally, each of the 5 women chose to learn how to track the embryological development of their baby in-utero. Pictures from Larson's book, *A Child Is Born* provided clear gestation images of weekly shifts, enabling the subjects to palpate the embryological development of their babies.

The first session sets the foundation for the participants, and it initiates the creation of relationship with the practitioner in a safe container. Typically, all questions are not answered during the first session because new insights arise after the subject's bodywork experience. The intention of the first and following sessions is to build a relationship that feels safe to the client. This is a genuine relationship that most participants have not experienced. Remaining present, learning to track and listen, while holding a safe container is often the biggest challenge for the practitioner. The practitioner "muscle" is built over time and lots of practice (Castellino, 2011).

Topics discussed in the first session include a review of the intake form with more detail. The practitioner listens to the layers of the subject's expression and tracks the sensation and somatic responses delivered by the subject's nervous system. The practitioner holds a wide perceptual field to fully understand the subjects' functioning, wanting, and somatic responses.

Initially the client is asked to locate "wanting" in her body and then orient to the possible sensation(s) or the felt sense of what she is "wanting." The latter piece is the most revealing because it places the client in relationship with the felt sense of her body; in some cases for the first time. The body's expression of the intention/wanting is equally significant for the practitioner and the participant.

Other revealing questions are about the subject's experience as a prenate. This material is partially revealed by the subject's mother, through the voice of the subject. The challenge I found in gathering my story was my mother's discomfort sharing this information. Sometimes the stories shared included knowledge of generational material. The ancestral material is otherwise gained through the bodywork. The bodywork sessions support the subject's process and enable the practitioner to observe the patterns remaining in the body, including the embryological development of that subject. This reveals the possibility that prenatal imprints are somatically maintained. Both the mother and her baby are given new resources and, therefore, new choices for resolution.

Research Hypotheses/Questions

The dissertation's question asks: *How does the insertion of the OPB process, including therapeutic support, education, and experienced practitioners, during pregnancy make a difference in the maternal-fetal relationship, before birth, during birth, and after birth?* In other words, how does the insertion of the OPB process influence prenatal bonding?

I hypothesize that if the practitioner supports a pregnant subject to communicate with her baby prenatally, then the maternal-fetal bond will strengthen. The communication occurs both verbally and nonverbally, with and without contact, and

through viewing picture books and 3-D sonograms to gain an understanding of embryological growth. Maternal-fetal bonding strengthening is important because it supports the health of the maternal-fetal relationship.

Sampling

A convenience sample is used because this is pilot, exploratory research. The subjects, or participants, as they are called in heuristic research, are either self-selected or referred from another client or practitioner. Four of the subjects worked with me concerning personal growth issues a year prior to the initiation of this research. The fifth subject entered this study at the end of the first trimester and was referred by another participant. At the start of the study, the subjects were trying to get pregnant or were already pregnant. Each of these women is committed to the essential meaning of this dissertation. Each of the 5 women selected are willing participants. The subjects in this research are either self-selected (4 participants) or referred by a friend (1 participant). The subjects' prior history ranges from relative ease in getting pregnant, to fertility issues, to the desire to adopt, to the challenges of in-vitro fertilization both with and without using a donor egg. Regardless of how the pregnancy was conceived, the intention is to sensate the prenatal bonding experience.

The participants in this study are adults whose age ranges from 29 to 43. Demographically, the 5 women are middle and upper class. All women are college educated. All of the women are Caucasian. Their employment included teaching, finance, acting, and Pilates instructor. A description of each subject is presented in the box below:

- **S** is a financier. She supports her family and has been very successful. She now has two children who are 3 years apart. The eldest child is a boy. The second child is a girl. S participated in this study for both children. I was her doula for each pregnancy. Her husband came for sessions as well.

- **J** is a pilates teacher and a BCST. She has two children, and I have been involved with her pregnancies, the births of her children, and aftercare for her family. I was the doula for her first child. All of her deliveries were natural. Her husband came for sessions every week. I continue to work with the family.

- **D** is a financier and a film producer. She has two children who are 4 years apart; the first is a boy and the second is a girl. I was her doula for both children. Her husband came for sessions until he became ill. D's experience is unique because she was unable to conceive naturally. Her son was conceived in the fourth IVF cycle. Her daughter was conceived through a donor egg.

- **A** has one child, a boy. I worked with A for 2 ½ years prior the conception of her child. Once she got pregnant, she said she had learned the necessary skills, had the tools she needed and an understanding of resources. She credits our work for the ease of the pregnancy and birth of her son. A chose to have a water birth at home with a midwife. We reconnected after her son's birth and deepened the bonding relationship.

- **AM** worked me for 15 months before getting pregnant. Her first pregnancy was without complication. The birth of her daughter was intensely traumatic and ended with the death of her baby. She became pregnant not long after this. I continue to work with her presently.

Each of the 5 women has some prior experience with bodywork, including acupuncture, massage, and chiropractic. None of these women have prior experience with Biodynamic Craniosacral Therapy. This is significant all were essentially beginning their bodywork from the same place and none of the subjects have any preconceived notions.

Only 2 of the participants have been in talk therapy previously. None of the women have any prior knowledge of prenatal psychology. All participants are committed to this research project, and they see this as an opportunity to learn essential aspects of prenatal bonding.

Methods of Data Collection

There are three methods used in heuristic research:

1. Interview: This consists of conversations about participant's experiences. Moustakas (1994) states that the participants are also co-researchers. Open-ended questions yield in-depth responses about experiences, opinions, perceptions, and feelings.
2. Observation: This includes both internal (tracking the subject's nervous system) and external (verbal and non-verbal) communication. Observation refers to any aspect of observable human experiences with detailed descriptions (Hiles, 2001).
3. Documentation: Documentation is the written material, including forms, questionnaires, dairies, correspondence, surveys, case notes and publications (Patton, 2002).

All three styles of material collection were used in this study.

Instrumentation

There were no existing instruments that could be used in this study. Therefore, an original intake form and an evaluation questionnaire were developed. Before I meet with each of the 6 women, they are asked to fill out the intake form. The intake form was not pilot tested but I have used this form for the last 8 years. The intake form (see Appendix A) and evaluation questionnaire (see Appendix B) are described below:

The intake form is developed from a compilation of other intake forms used in similar fields of practice. The intake form is self-administered prior to the start of the first

session. Participants fill out the form online and email the form back to me prior to the session. The intake form includes five sections:

1. Basic Participant Information;
2. General Health;
3. Personal Health;
4. Resources/Support Systems; and
5. Birth History – Ancestral Information; This section links family patterns to the present, prenatal trauma to present challenges in behavior and psychology.

The evaluation questionnaire

This questionnaire (Appendix B) was developed for the purposes of evaluating the effectiveness of the therapeutic process in actively supporting prenatal relationship bonding. I developed the evaluation form with women who had an understanding of PPN and bodywork as well as the significance of gestation. This was checked by my advisor and two women who had fertility issues who chose not to participate in the study.

The evaluation was emailed or mailed to each subject after the baby was one year, and it was self-administered. This is the simplest way to get the questionnaire to the subject. Responses were returned within a 2-week period. All 5 women continue to work with me during this year, and their babies are either treated separately or with the mother.

Four of the women had a second child within 24 months. Each subject commented about the similarities and differences between the two pregnancies, particularly in feeling more confident about the sensation and significance of maternal-fetal bonding. J noticed how her son recapitulated his birth trauma, getting stuck in the opening of his mother's pelvis. His frustration threshold certainly impacted the fluidity of

his nervous system. Attempts to move through this ended in parasympathetic collapse or shock. I worked with J to develop resource strategies, such as pacing and timing of the experience.

The open ended evaluation questionnaire asks:

1. What is your prior bonding experience

    1a. and what did you learn?

2. Did this therapy enable you to better bond with your baby in-utero?

3. Would you recommend this process/Tera to others in similar circumstances?

    3a.Would you work with her again?

4. How did this paradigm support your early bonding with you baby in-utero?

    4a. If not, explain how it did not?

I developed the evaluation form in conjunction with an advisory committee of women experts who had an understanding of PPN as well as the significance of gestation. I also verified the forms content validity by checking with two women who had fertility issues, but were not subjects in this research. After the babies were 1 year old, I contacted the women by phone and mailed the evaluation form. This worked well because scheduling became an issue. I followed the women up over time and continually recorded information on the evaluation forms about whether the women had a second child, the family encountered significant trauma, or the mother noted a recapitulation of behavior over time that reflected gestation or birth.

Observational case notes

Another significant form of documentation used was session case notes. At the end of a session, or at the end of the day, I filed client case notes. The format of case notes logged is:

1. Subject of session or intention,
2. A brief history of the intention,
3. Observations,
4. Assessments, and
5. My thoughts for future sessions.

Case notes were written up after the close of each session. I have also included two case note entries as indications of how subjects' sessions were documented (Appendix C). No names have been included here as per subjects' requests. Confidentiality prevents me from providing any further case documentation.

Study Site

Sessions were given in spaces that do not resemble an office. They were held either in an apartment setting, a space such as the Meta Center in New York City, or during home visits. Phone calls were sometimes necessary between sessions. These calls were noted in the subject's case record.

Data Analysis Procedures

The information delivered by the evaluation questionnaire is qualitative and personal as it relates to a woman's prenatal relationship to her mother, herself, and her child. Each subject also has the experience of reviewing her ancestry and how it influences her ability to frame a new relationship with her baby in-utero.

My closeness to the material is skillfully tracked through personal documentation done prior to this study as well as weekly supervision during the course before, during, and after this study. Having personal experience with some of these life issues, I continue my personal healing so that she remains clear enough to support the subjects in this study. I believe personal exploration is demanded for any practitioner choosing to work with other beings lives.

I entered into the study looking for certain themes derived from theory and personal experience. The challenges and benefits of this study are derived from my intimate relationship with the issues being explored: prenatal concerns, fertility and pregnancy concerns, and conscious parenting. Of key importance to me is the possibility of gestational imprinting continuing throughout an individual's life span. I am conscious of the multidimensional considerations that must be tracked as integral to researching the potential for new life, mindful mothering, and conscious parenting. Furthermore, it is likely that conscious prenatal parenting advocates that more opportunities and choices are available. For example, in this study, the secondary layer of the subjects' self-discovery gives the option of making choices different than one's ancestors. It is not absolute that a woman whose has had breast cancer will have girls that will encounter the same issues. Epigenetics informs us that the environment has the potency to turn genes off and on. It is therefore possible to at minimum consider different scenarios.

Heuristic research presents a double-bind for me. While heuristic research demands the expression of passion and personal expression, the boundary between this and being nonjudgmental must be juggled very carefully so as not to confuse passion for judgment. A researcher's ability to maintain an attitude of nonjudgmental observer is

integral to the OPB process. Each of the four fields of knowledge demands that a practitioner understand the meaning of presence both intellectually as well as somatically with concepts, such as neutral, midline, fulcrums, pacing, and present time. This being said, the data collected for this study was accurately reflected on and compared and contrasted to existing theory and 20 years of practitioner experience. The evaluation questionnaire was sent to someone before me to avoid bias regarding specific responses.

Thematic analysis

I used thematic analysis to identify those statements that are consistent with all 5 subjects as well as those statements that are particular to one subject in order to ensure the quality of the study. In addition, personal journaling together with supervision supported documentation accuracy. The research assessment remains clear and accurate because before the study was complete, I had written a manuscript of my experiences with the intention of it becoming a book.

Role management

With sensitive and intimate exploration and discovery, the roles or the context for the subjects is laid out at the start of the study. The sophistication of the 5 subjects facilitated an ease of the co-participation and co-research. The subjects are aware from the very beginning of our work together that I work with a team of practitioners whom I refer to as needed. For example, in the case of A, I referred her and her husband to a marriage counselor. In the case of D, both she and her husband were referred to an osteopath to support the challenges of her husband's illness. Confidentiality was discussed at the being of each subject's work with me.

CHAPTER 4

RESULTS

This chapter presents the research results and brief analysis of the data on the OPB process and prenatal bonding. A more detailed discussion of the results appears in Chapter 5. Chapter 4 also presents a more complete description of each of the subjects. The most potent similarity among all of the subjects is their intention to be conscious parents. Each subject engaged other family members to support this intention. Subjects are either referred or they are already clients.

The results of this investigation are presented according to the research hypotheses and questions. Each hypothesis is restated and presented one at a time. The results are derived from an original evaluation questionnaire (Appendix B). A table was created to compile the results from one of the questions on the evaluation questionnaires.

The results of this study on the effectiveness of Optimal Prenatal Bonding (OPB) derive from original pilot research. This dissertation fills a critical gap in the prenatal bonding literature as the process is defined by prenatal and perinatal psychologists. The use of this process increases the likelihood of a bonding maternal-fetal relationship and its intention is to minimize stress, violence, abuse, or anxiety.

Synopsis

This dissertation presents a heuristic, research study that examines the significance and benefits of prenatal bonding. This study is based on the fact that the prenate is a conscious being, and the mother's body is the environment for her. The fetus experiences the mother's experience of life.

This OPB process blends both nonverbal and verbal contact. The effectiveness of the OPB process is measured through observation and qualitative case histories. Qualitative evidence reveals that the subjects who venture into the OPB process learn more about themselves and want to become the very best parents. OPB blends together what I call the four fields of knowledge, including prenatal and perinatal psychology, biodynamic craniosacral therapy, trauma therapy, and conscious parenting.

Subjects

Five women, and their families, agreed to participate in this study. All of the families are either self-selected or referred by either friends or physicians.

- One woman was 3 months pregnant. Another subject in this research referred her to the study.
- Four of the women knew they wanted to have children, but this was not why they originally came for sessions.

Each of the 5 subjects who agreed to participate in this project had an intention of conscious parenting at some point. Four of the subjects worked with me on other issues first, which supports conscious parenting. The fifth subject was in her third month of gestation. Qualitative evidence reveals that the subjects ventured into this therapeutic process to become the very best parents with the desire to learn and experience what best

supports the maternal-fetal relationship. This includes the impact of any prior trauma experience, which gives maternal and ancestral information.

The 5 subjects in this study have several things in common. Each woman is married, Caucasian, living in New York, and was employed at the beginning of the study. The 5 subjects are all highly educated and from similar socioeconomic backgrounds. Each of the subjects is committed to the OPB process. Additional background information is described below. Other bodywork modalities experienced by the 5 subjects are massage and acupuncture. None of the subjects have prior information about prenatal care, BSCT, the significance of ancestry, or the nature of trauma and the nervous system.

There were differences identified for the 5 subjects. Three of the subjects' husbands participated in the study and also came for individual sessions. Four of the women had been doing extensive personal growth work with me prior to preparing for pregnancy. The remaining subject arrived in her third month of pregnancy. Four of the women continue to work with me since the research ended.

It is impossible for me to tease apart a subject's session to accurately demonstrate how the four fields of knowledge actually weave together. This is the rationale for describing the fields individually while simultaneously emphasizing a collage-like blending of the four fields of knowledge in this dissertation. The collage is unique for each subject. Case notes reveal a list of BCST skills used during a session, with significant words indicating the theme of the session. Two days of case notes are in the appendix (Appendix C). When the fields blend, a skilled, experienced practitioner also relies on intuition skills.

S

S, 36, was referred to me by a chiropractor with a complaint of constant pain on the left side of her neck. The chiropractor suggested a possibility of an emotional issue. S said the pain was significant and a challenge since her outward-bound experience several years prior.

S presents as an attractive, confident, successful businesswoman who is grounded and compassionate. Born in 1961 in England, her mother had no miscarriages before S's birth, but her mother had two miscarriages prior to her older sister's birth. S stated that there were no known fertility issues in her family. For childbirth, S's mother was given a drug "cocktail" that helped her to settle for the birthing. Drugs like this were typically used in the 1960s. Her father was not allowed in the room at S's birth, which was also typical in the 1960s. This was all the information she received from her mother.

Scanning her system, I found S had an enormous vitality in her system that was dampened and locked up. When palpated it felt to me like papier-mâché. S's primary respiratory mechanism was shut down, due to overwhelm and an inability to process the burden of too much information. There was no movement in her central nervous system. Her body was in a state of shock. Some of the reasons for her being in an un-resourced state were: living in New York City, being the only woman in a predominantly male industry, and the fact that her husband smoked pot every day and could not hold a job. Shock was located in the autonomic nervous system (ANS). Balancing her nervous system using perennial work facilitated sympathetic and parasympathetic fine-tuning and self-regulation. S was holding her body in such a way that told me she had been a victim of sexual trauma.

In the initial sessions, we focused on relationship, creating safe space, negotiating contact, and resourcing. I held her head in an occipital hold. S's neck pain had an impact systemically; a twisting in the dura at T9 and T10, a cephalad rotation in her pelvis as well as an inter rotation on the left side of the pelvis, which creates the same internal rotation through the entirety of her body. This positioning is indicative of confusion or conflict during the embryological development, which recapitulated at birth. This whole body shape was primary and over-coupled. This pattern indicated how her body responded to trauma.

I observed body patterning organized around her right ovary expressed as a therapeutic pulsing. The patterning in the pelvis was mirrored in the jaw and hyoid bone in the neck. This whole body shape impacted the hyoid, shearing laterally, a partial reason for the pain S was experiencing.

For the first 6 months, we worked together enabling S to deepen into her embodiment, accessing still-points, ANS unwinding, and supporting her system to resource and return to self-regulation. Several months later, S was lying prone on the table, my hands on her neck at specific accessing parasympathetic nervous origins. Her system had more resource, was able to unwind, began to hydrate and pull in more vitality, deepening until she went into a still-point. In that moment, she had an image of her father and her tricycle, and a memory was triggered. Her eyes flowed with tears. S experienced tingling and heat; her body discharging and shape-shifting. I sat with S holding her sacrum for more than an hour, most of the time in silence.

S wanted to have children but was concerned about her husband's (R's) pot habit. R committed to weekly sessions with me. R's history presented a lot of trauma – skiing

into mountains, hitting his head on the boom of a sailboat and more. Observing the shape of his head and the fact that he was born in the 1950s, it was clear that forceps were used for his birth, shearing all the way down his spine through his coccyx, lower back issues, a narrowing of the head side to side, elongation of the head front to back, and a squeezing of the brainstem causing excessive sympathetic compression. The result of this imprint is a need for tension in his field. BCST was initially an excellent modality with R. OPB supported still-points, resourcing, and self-regulation.

S came regularly to weekly sessions and sometimes twice a week if she was more overwhelmed. By the end of the first year, S was communicating with her body, appreciated the felt sense of embodiment, was able to access still-points on her own, and capable of tracking her nervous system. S was so enthralled with our work that she went to a 4-day workshop on BCST.

There is a place in the OPB process where the subject begins to differentiate her internal embodiment from the tension fields outside her body. This shift is subtle and profound. When the external tension softens, the subject re-engages resilience. This was resourcing later when she became pregnant. S became pregnant when she was 38. While we worked long-distance when S was in Japan, I noticed heaviness in her pelvis, together with a strong but slow pulsation.

S had taken the time to consciously prepare for conception and motherhood. She had worked with me to be resourced and in a deeper relationship with her body. She identified the felt sense of wanting a potency building below her belly. In other words, S was committed to the somatic experience of pregnancy and the maternal-fetal bonding relationship. Her commitment was evident when S said, “this is conscious parenting.” S

was willing to do whatever necessary to make her pregnancy as loving and healthy as possible. S's strong spiritual nature also reinforced her connection to her pregnancy. She worked hard to remain present to motherhood.

S was open to the possibilities of developing a relationship with her baby in-utero. When asked to visualize and sense the subtlety of embryological development, she placed her fingertips on her belly and listened. Like all of my mothers, she studied images of embryological development. The familiarity with these images S said made it easy to dialogue with her little one.

Several months before the birth of her son, her family and I performed a ritual, integral to OPB, on several evenings. S agreed that the best way to honor her baby and new family was to make sure the little one felt safe and welcomed on his journey. She did this through visual tracking, ritual, and prayer.

The dynamics of S's second child's gestation was more fluid from the inside-out, but more challenging with R's inability to maintain a job, give emotional support, help with their son, and acting like a child himself. The question remained how to maintain a safe, welcoming space for the little one.

S and R asked me to be the doula for their second child. This expanded my practitioner role and enabled me to become a more integral part of the prenatal and birthing process. I went to all sonogram appointments, and met with the OB/GYN prior to presenting her with a birth plan. I encouraged S to palpate prenatal movement. S studied chemical and surgical imprinting, which, while this was not what she desired, she was curious about the imprinting patterns that develop.

Arriving at the hospital and then the birthing room, we created an energetically pleasing space for new life. The staff was ready with the Pitocin, and my client refused. The OB/GYN arrived, and in spite of S's birth plan, the doctor wanted to give her Pitocin because S was only 3 cm dilated. S and I made eye contact, and S refused. The doctor left saying that she would give us 20 minutes. Prayer and belief are integral to OPB. When the doctor left the room S, R, and I meditated together telling the little one it was her choice to come the way she wanted. Whatever way she chose, she would be supported. R and I remained holding hands in silence around S's belly.

Forty-five minutes later, the doctor returned, and S was 10 cm dilated. Two pushes and her baby was delivered with the continuity from inside to outside. Placed on S's belly, her baby wiggled himself to her breast and latched on.

D

I met D, 42, when she was 3 months pregnant. The pregnancy was a result of in-vitro fertilization S referred D to me. This was D's first pregnancy and her second marriage. Her first marriage was short-lived, and she did not have children with that husband.

D' presents in fear, overwhelmed and in shock, and dissociated. The subject appeared lost. Her familial relationships were limited. Her father was not around for D's early years, and he died while she was young. Her relationship with her mother was tentative and without trust. D did not have support or a role model to help her with becoming a mother. Her mother gave her no information about her conception or the influence of ancestral history. I observed elements of insecure attachment, lack of trust, and substance abuse as possible transgenerational patterning.

Prior to this pregnancy, D and her husband tried to get pregnant naturally for 6 months before turning to in-vitro (IVF). She did three rounds of IVF and got pregnant on the fourth cycle. D describes this as a threshold that keeps rising; more cycles, more drugs, and more testing. D acknowledges that she was not prepared for motherhood nor did she consider her baby alive before its birth.

D knew that she needed to calm down. She was not thinking about the baby nor did she consider that an option. Bonding was a possibility late in the second trimester. When asked how she prepared for pregnancy and becoming a mother, D laughed and said she had not thought about preparation. D had not considered conscious parenting.

My observation of the situation was as follows: the subject was in shock over-coupled through several generations. D's body was in shutdown, her nervous system was in collapse, there was no evidence of self-regulation, and this meant that her baby was traumatized. Upon palpation, it was clear that the little one was in a state of freeze.

OPB was created originally for this type of extreme client situation. The scenario of the next few months required:

- Coming into relationship with D and the prenate; both needed to be acknowledged that they were there. Simply greeting each of them initially supported this intention.
- Holding a therapeutic container that would become safe space for D and the baby.
- Slowing the pace down enough for the two of them to begin to settle. I emphasize *slowly* because this is a place of potential confusion. D's trauma was in her nervous system, not any of the events or stories that got her here. D

was not resourced, which meant that if the pace was not maintained as slow, it was likely that she would spiral out again, lose present time, and dissociate.

- Be comfortable with taking whatever time was necessary. D is in her first trimester.
- PPN helped D to bond with her baby. D was given accurate reflection, and she learned to feel her own sensations, tracking them.
- BCST enabled her to resource, connect with the Intelligence of herself and the baby and have many, many still points. This is how we were changing the chemistry in her blood, and this changed her communication and relationship with her baby
- An understanding of how trauma affects and manifests in D's body is critical in being able to track both of their systems while simultaneously and slowly supporting the discharge of shock.
- The awareness of and then the sensation of a deepening togetherness gently facilitates the bonding relationship.

In OPB, every nuance in each of the four fields of knowledge occurs and is worked with simultaneously through palpation, conversation, naming, tracking, unwinding, maintaining self-regulation, and settling. This is how I worked with D, her husband, and her baby over the next 6 months.

This is an example where OPB is necessary, which is why, in spite of her being 3 months pregnant; she wanted to be and was a welcomed subject. Since the subject was not given much information, it was enough for me to observe what was going on inside of her and in the maternal-fetal dyad.

D acknowledged her own nervousness and anxiety without fertility drugs. With fertility drugs, she knew that her system was speedier, and her concern was that she might collapse into fear, which meant sinking into the abyss of failure.

Like many other women considering technological conception, the subject was initially more focused on the outcome, instead of the process of having a baby. Unlike many women who choose IVF, the subject had a sense of how IVF was affecting her body. The amount of information, including nuances that impact a woman who is using IVF is far greater than imagined. There can be intense emotional highs and lows, not to mention the psychological aspects of IVF, being prodded with more doctor visits, blood tests, and some of the medical community saying that they can make a baby for you. The woman is identified as "high risk," and these two words have an enormous effect on both the prenate and its mother: fear, stress, depression, stasis, and anxiety to name a few.

Emotionally isolated, D began working with me as dissociated and overwhelmed. Her system was in shock and in shut down. D was confused about becoming a mother. It was impossible to identify just one catalyst for this confusion.

Anatomically, the subject was in overwhelm, and her own birthing experiences were more and more part of the present gestation process. The subject described her position as "standing alone on a cliff frozen." When she began to accept my verbal and nonverbal contact, the subject began to make eye contact with me with hesitation. Her husband reflected similar communication skills.

Over time, the subject began to settle on the table slowly revealing her discomfort and the highlights. It was a while before she connected with the subject had numerous

somatic complaints throughout her pregnancy, regarding her jaw, neck, and continual headaches.

As with S, we began very slowly. D had an enormous amount of chatter in her head. The process was slowed down, finding a pace that worked for the subject, and allowed her to negotiate getting on the table and lie down with less chatter. This information came directly from the fluid tide pulsation. Once on the table, it was possible for the subject and her baby to begin communicating. The subject was happy to look at the pictures of each day/week/month (Nilsson, 1990) and then visualize that image while palpating her baby.

During the first 6 months of our work together, the subject and I began to bond, which supported her to feel safe for what she said was the first time in her life. The subject's system gradually resourced, and she became more available for contact, conversation, and stillness. We worked primarily with the connection of the sacrum to occiput or the ease of a sacral hold while acknowledging the baby's presence. The recognition of the little one is key. Just like any adult, we want to be seen and "met." Accurate reflection like this supports a safe container for both the mother and child.

By the end of the sixth month of the pregnancy, D was able to scan her body, track sensations, and feel the development of her baby. D asked me to be her doula. Like most IVF births, D was considered high risk and, therefore, she would have a caesarian section (C-section). Labeled high risk is an imprint that needed to be processed.

When her son was born, I continued to work with both of them. There are many benefits to aftercare. It continues the mother-child bonding. D's hormones had an opportunity to shift more slowly. Birth and a C-section are coupled with specific

personality traits, so it is beneficial to support the baby to unwind and be born the way it wanted to originally.

Six months after her son was born, the subject and her husband began trying to have another baby. They tried artificial insemination (AI) and after several failed cycles, returned to IVF. Her initial cycle ended in miscarriage. Simultaneously, the subject said that our work together supported her to bond with her son after birth.

There were several failed IVF cycles, and the subject was getting sick frequently. The inflammation of her ovaries was apparent, and I asked the subject to consider stopping fertility drugs. The subject was conscious of the pain she experienced in her ovaries, and decided to take a brief break. Her body needed to recover, and I told D that I would support her through one more cycle.

D became pregnant using a donor egg in the next and last cycle. By this point, her body was so traumatized and exhausted, D needed an increase in support for this pregnancy. As with the first pregnancy, OPB had all the elements necessary to actively support the pregnancy, including the maternal-fetal bonding. D and I had created a small support team.

D's second pregnancy had added challenges. When the subject was in the seventh month of her pregnancy, her husband was diagnosed with a terminal illness. The diagnosis was also coupled with the couple's closing on their new apartment. A discussion of the subject's husband's illness and her pregnancy goes far beyond the scope of this dissertation. Three months after the birth of the second child the subject's husband passed away.

A.M.

I met A.M. when she was 29 years old. Another client referred her to me. The daughter of a medical doctor, A.M. was raised as an only child. She was recently married and finished school to become a teacher. Like some of the other subjects, A.M.'s original intention was not getting pregnant. A.M. had just completed 5 months of chemotherapy for Hodgkin's lymphoma. She had been searching for an alternative therapy for her recovery.

A.M.'s mother had little information about her pregnancy and prenatal care. A.M.'s parents were married more than 10 years before she was born. A.M. was planned, and an only child. There were no miscarriages prior to her conception.

The subject's nervous system was so jazzed she could barely sit down. Her eyes were fluttering quickly, she had a hard time focusing, and she spoke fast. The subject had no awareness of any of these signals of central nervous system (CNS) compensation. The subject was hypervigilant, and there was noticeable perturbation in her field, an indication of overwhelm and shock discharge, which indicate a reaction to chemotherapy.

A.M. and I spoke about her intention for the initial sessions, and then she presented her story. With verbal guidance, I supported the subject to slow down, pause, and differentiate her story from her nervous system. Each time she returned to the story, I asked her to pause and pay attention to how the story made her speed up. A.M. had no awareness of her body or bodily sensations.

The first 6 months, I used Venous Sinus Drainage (VSD), an Osteopathic protocol used to clear the third and fourth ventricles to release toxic matter from each organ, membrane, tissue, and cells while facilitating opening or releasing the tension in the

horizontal diaphragms (occipital, tentorium, hyoid, thoracic, respiratory, and pelvic). VSD supports the subject's system to open and cleanse the cerebrospinal fluid. The opening of the cranial base supports the possibility of longitudinal and lateral fluctuation, and the body's vitality returns.

Recovery takes time, and this is the priority as expressed by the subject. Twice a week A.M. would spend an hour on the table while I held her sacrum to occiput tracking her nervous system and resourcing. VSD was repeated once a week at the beginning. The fragility of the subject's recovery paced our sessions.

At the end of our first year, December 2007, the subject stated that she and her husband decided to have a baby. Six weeks later she returned pregnant. The subject's pregnancy flowed without any interruption. The subject arrived weekly. Integral to OPB, A.M. journaled her baby's story. The subject used the images in Nilsson's book like the other subjects.

A.M. described her work with me during the first 6 months as "one of the most peaceful times" in her life. Still in recovery, our sessions worked with stillness, self-regulation, and creating space for the prenate. Her belly pushing forward, each session required sacral release, opening lumbo-sacral compression and tissue hydration.

A.M.'s delivery was horrifying. This is a case where, in spite of being very resourced and prepared, it did not matter. Everything that held her process fluidly was damaged. I understand why she did not want me as an advocate during labor and delivery (her father was an MD). No one could have predicted that such a brilliant pregnancy would end in her baby dying.

A.H.

I met A.H. when she was 31 years old. Another client referred her. The subject was interested in the concept of an integrative, alternative, therapeutic process, but had no prior experience. Married for several years, A.H.'s priority was her career. Similar to the other subjects, this subject stated that her intention was focused on personal growth and finding a space of ease for herself. The subject expressed being victimized by her story.

Both of the subject's parents were not planned babies. The subject states: "My parents were both surprises and not really wanted. Physical abuse was part of both parents history; possibly sexual, in ancestry as well as my parent's generation." The subject also says that settling into a home space for her parents was challenging. The subject states that her family left New Jersey when she was young to settle in the District of Columbia. The subject's family experienced highs and lows. Her father moved his family to San Francisco for a great job, but the job fell through. The family moved back to the District of Columbia and later back to New Jersey. Her father's inability to settle in one place and self-regulate could possibly be an indication of similar patterning in his home growing up. The subject states that her father was emotionally and physically abusive. The lack of a "home" developed into anxiety and hypervigilence for the subject.

Unlike either of her parents, A.H. was planned, and there were no miscarriages prior to her conception although there were two miscarriages prior to her sister's conception. A.H. believes it is very possible that she was a twin, based on proprioception and somatic patterning information. She also spoke about her search for the other, the beloved, and this is a common statement from those who have missing twins.

The subject experienced her mother's stress and tension during gestation. After birth her prenatal experience was recapitulated. This subject was born into a strict Christian family. Born at the end of the Vietnam War, the subject states that her family was affected by the war and the gas crisis during 1973–1974.

Each layer of the subject's system reflected depleted exhaustion. The subject also experienced a heaviness on her chest and difficulty breathing; a common occurrence since early childhood. Breathing issues, such as asthma, are indications of challenged bonding and resentment on the part of the mother toward her child after birth (Madrid, 2010). This also showed up as confusion, distraction, and an insecure sense of self-esteem or self-confidence.

When I met A.H., the subject was struggling in her marriage, and together we discovered that it had less to do with her husband and more to do with her perception of him, thus creating a recapitulation of her mother's behavior. On my suggestion, she and her husband began couples counseling.

During the first year of treatment, A.H. came for weekly sessions. While she had little knowledge about what we were doing during the sessions, the subject knew that at the end of each session, she felt safe, relaxed, and in her own skin. Some of the time, while lying on the table, the subject's words and behaviors made her seem young and not in present time. The subject appeared to hold her fear in her limb buds pulling her away from her midline.

During the first year of treatment, our time was spent resourcing a fragmented child who did not know that a gentle home space could exist in her body. A.H. and I spent the initial 10 sessions with negotiating contact and creating a relationship and safe

container for the subject to settle. Once contact was made, I worked with the subject to find safe space inside her body through a tool that is called creative opposition. The subject and I worked with this therapeutic tool. It is used for grounding, to ease dissociative behavior, to enable the subject to feel her own differentiated body, and to enable the subject to experience her inside versus her outside. The subject would contact my hand by sensing an inner drive as if she were a baby making contact with her mom for the first time. This is a powerful tool that supports the subject to reframe her own early experience of contact.

The pacing of the relationship and the ability to remain present supported the subject to resource, and slowly her limbs reconnected. Witnessing the subject's face soften and her eyes light up as if for the first time, we both realized that she was finding the physicality of her body for the first time. The subject described her process with me as "continuing to work through the balance of feeling supported and cared for at the same time."

This subject's journey was unique. After 3 ½ years, she decided to "test the water" and use these new skills on her own. She left our sessions, and within 3 months, she was pregnant. Her baby was not planned, but she was delighted by a new sense of possibility. The baby's birth was a water birth. The subject described it as follows:

> OPB was a gift that gave me back my life. I settled into my resources and embodied myself for the very first time. I learned that I did not have a bonding relationship with my mother, and it was a priority for me to do things differently. The pacing of OPB was amazing and challenging. After 3 ½ years of bodywork and processing, I felt strong enough to try this on my own. While my intention

was not to get pregnant for some time, I learned from Tera that God only gives us things that we can handle.

A.H. returned for follow-up when her son was 2.

J

J began coming for sessions with me in 1994 when she was 24 years old. At that time, the subject was a Pilate's teacher and a professional modern dancer. Our work together had such a strong influence on her, that in 2003, the subject began her studies in similar body-mind therapies.

The subject is the younger of two children; her brother is 2 years older. J initially described her family as having no major problems, and her parents remain happily married. Her father is a pharmacist and her mother a homemaker.

The subject presents as a healthy, attractive young woman. Physically, the subject presents a calm and nervousness. Observing the subject, I became aware of confusion. She seemed distracted, and her nervous system spinning was expressing a dampened anxiety along the midline. Her eye contact was scattered and her right eye traveled, indicating possible trochlear nerve involvement. This could be a response to birth trauma or an emotional reaction. The questions for the time being were left unanswered.

The subject's original intention was non-specific. She desired to access general personal growth and therapeutic support. My response to her was "how would you know that you were getting what you need? What would it feel like in your body?" This question intends what the client wants to obtain by the end of the session—to feel successful. This measuring tool is often an exploration, which was the case for J. Similar to the other subjects, naming the sensation(s) for the desired outcome, invites the subject

to step into her body, perhaps for the first time. This is key for successful maternal-fetal bonding. In j's case, she had more body awareness than the other subjects because she is both a dancer and a pilates instructor. The naming or identification of a desired sensation(s) took j out of her head and into her embodiment.

Similar to the other subjects, J had no experience with feeling safe. After weekly sessions for 6 months, J was able to track herself, and this supported her ability to resource herself. J became aware of differentiating inside out from outside in or acting and reacting.

The subject and I spent the first year developing a relationship and creating a space, with the intention of experiencing safety. The subject remained hyper vigilant, whether on or off the table, making verbal or non-verbal contact was difficult and had to be negotiated carefully. In the eighth month, J began to show signs of settling into this process by titrating older and more resourced movement and a general sense of calm.

Early sessions revealed the subject's need for settling, differentiating herself from the story, and allowing the table to support her body. Making physical contact with the subject could take as much as 20 to 30 minutes. By the end of the first year, this subject tracked her system, and this information enabled her to track her settling on the table.

During our sessions in the second year, the more resourced subject was able to tell me that her older brother had sexually abused her from the ages of 3 to 9. J revisited this early trauma at a very slow pace. Because J had bonded with me, the OPB process was an enormous support. J commented, "I felt held in my anxiety and discomfort for all this time." Revealing this secret in a safe place initiated a systemic unwinding, including the building of potency, a flushing of CSF in the brain down through the jugular foramen in

the cranial base, and active discharging of heat, shaking, and jerking through her limbs. The paced release of this shape over the next 5 years supported a later desire to become a mother. Until recently, the subject had said nothing to any family member.

When the subject was 28, her focus shifted to her personal prenatal care and her capacity to become a mother. In the past month, J had the experienced herself as individuated. She asked, "How can I maintain this during pregnancy while being bonded with my baby? How does a woman become a wife, mother, and herself all at the same time?" The subject's husband began having sessions when they began planning for conception.

J expressed her thoughts when filming the documentary on prenatal bonding. The most beneficial part of the OPB process when trying to conceive or starting a family was the opportunity to examine her prenatal story and note ancestral influences. Exploring her early history and the layering of imprints left her "fascinated and that much wiser" about the creation of her own family.

The subject's first child was conceived when J was 30. I was invited to be the doula for the couple and their first baby. The subject stated that our sessions prior to the pregnancy were significant, and her motivation was well supported by the process. In addition, I supported the subject to participate in three Womb Surround Process Workshops to gain insight to her own challenges together with her own birth process. Her work was amazing, and she totally reframed her hospital experience. It was fascinating watching the subject's bunny hopping as she was delivered from her mother's body. J stated, "I wanted to get out quickly." This time, however, it was done with guided pacing

and supported, which enabled her to slow down and discontinue over-riding the places of discomfort.

There is one hypothesis that informs this study. It states that the insertion of the OPB process during pregnancy makes a difference in the maternal-fetal relationship during pregnancy, birth, and after birth. This difference is unique for each subject and defined by the client. I aimed to make a positive difference in the maternal-fetal relationship during these three stages, however, the two-tailed hypothesis allows for iatrogenic effects as well.

This dissertation uses a mixed-methods heuristic research study. The goal of the study is to explore essential, subjective meanings of the maternal-fetal bond during pregnancy, birth, and after birth through the use of three research instruments: an interview administered survey, observation documented by case notes, and an intake evaluation form (or pre-test questionnaire). These three documents were created for this study and described in Chapter 3.

Results

Question 6 addressed the subjects' opinions regarding the inclusion of the therapist's experience. Their responses were three levels: somewhat helpful, very helpful, and extremely helpful. The response categories were offered in the evaluation questionnaire.

Overall, the subjects found the therapy helpful. Subject D wrote, "in order to manage the IVF process a disconnection occurs between mind and body. This therapy helps reconnect—helpful with myself and fetus to find calm and safe within changes in medication." Furthermore, A.H. writes:

It was amazing for me to be released from things in my OWN prenatal experience, and know that I was bonding with my child in a way that was free from my past wounding so that he could have a safe, loving space to grow. I also felt that it was incredible to learn how to bond with him in the womb—he is so responsive because of it, and when things came up for me emotionally I had the tools to use so that my son would not be affected with what mommy was dealing. Could explain to him what mommy was dealing with and that it was for him to grow and feel safe inside.

Although the subjects entered the intervention for various reasons, there were common themes. Although 4 of the subjects were already seeing me for other reasons, each made a personal choice to continue with this process when pregnant. The fifth subject came to me because she was pregnant and lost. This explains why there is a difference in their responses to question 2 on the evaluation questionnaire. Four of the subjects noted that they were there for therapeutic and personal growth and support. The fifth subject, already pregnant, was there to resolve fear of being pregnant. The fifth subject was also unique because her pregnancy used IVF and she was the oldest of the 5 subjects.

Each of the 5 subjects met her primary goal. Four of the subjects had worked with me prior to getting pregnant. One of the subjects felt that she had learned a lot and wanted to do things on her own after working with me for 5 years prior. We remained in touch, and she came back after her baby was born. She did an amazing job. Each of the subjects and their children remain clients in my practice.

Question 10 refers to a cornerstone in heuristic research. It asked the subject to identify to what degree was she involved as a co-participant and a co-researcher in our work together. Only one subject marked that she that she was neither a co-researcher nor co-participant. Three subjects acknowledged that they were somewhat of a co-researcher or co-participant. They participated in new things together. One subject stated that she was a regular co-researcher or co-participant, and we worked together constantly to find new insights and methods.

Question 11 on the evaluation questionnaire asked how the OPB affects the subjects' self-discovery and relationship with self. Two of the subjects checked that it made a significant difference. Three subjects indicated that it made a very significant difference.

Questions 12 and 13 were focused on the subjects' experience of the OPB process. The table below depicts how many of each possibility subjects experienced. Subjects were able to select more than one response. .

Table 1: Question 12

"How many of following have you experienced?"

Response	Percent	Number
Information about your prenatal story	60%	3
What the body needs to feel supported	100%	5
An understanding of prenatal bonding	60%	3
The significance of prenatal life on developmental, psychological, and behavioral issues	60%	3
How to connect with your baby throughout gestation	80%	4

Question 13 asks, "What would have enhanced your experience?" Participants responded:

- No response
- "Nothing"
- **"**Continuing to work through the balance of feeling supported and cared for at the same time coming into my own as a mother and developing my own relationship and opinions on how I am bonding with my child."
- "I am not sure what would have enhanced my sessions. I did not know anything about craniosacral therapy, so perhaps some more background when starting out would have been beneficial."
- "I was completely open to the process and willing to do my work. Tera supported me in the process and gave me much needed guidance and security."
- "I do not know what could have enhanced those sessions."

In question14, the subjects were asked to describe the therapy as a person with human attributes. The responses were as follows:

- No response.
- "Powerful, healing, life giving encouraging, energetic, compassionate."
- "Calming, intense deep, relaxing."
- "Compassionate, loving, sensitive."
- "Powerful, challenging, honest, supportive, and heartfelt."

Question 15 asks the subjects the difference between physical and nonverbal contact. One subject responded that she was unsure. Three subjects responded that it made a very significant difference. One subject checked that it made a significant.

Below are more detailed responses as requested by question16:

- "Calmer"
- "As someone who started working with Tera fairly unaware of my body, and also because quiet in my home usually led to unsafe physical or emotional contact. I found physical nonverbal to be incredible, powerful, and healing."
- "I think both are valuable and important. Both can be very powerful and have their place in a session. Talking through sensations and ideas helped me clarify my thoughts and feelings. Nonverbal bodywork is still a conversation. I don't know that I can separate the two. But I do know if it were only verbal communication I would not have felt as supported to make the shifts that I did."
- "Cleared my head to bond with the fetus."
- "I felt like most of the work Tera and I did was non-verbal. There was a lot of focus on my body, especially when I was pregnant. We worked a lot on my nervous system. I did not come to Tera for fertility issues by sought out my therapy after I was treated for Hodgkin's Lymphoma. I had done chemo for 5 months and was seeking some alternative healing for past treatment."

Question 17 asks whether the subject would see me again. Each of the 5 subjects indicated that she would see this me again. All 5 subjects are continuing their wellness at present time with me.

Question 18 asked whether the subjects would recommend this process. All of the subjects answered yes. One subject added, "although I would let them know it is not

always an easy process." Each of the 5 subjects has referred at least three women and children.

Discussion

An analysis of this dissertation's research takes into account that this is a pilot study and no prior research exists. As stated in Chapter 1, this research is a start in the attempt to fill a gap in the application of OPB theory to intervention research, which is critical if we listen to the little ones from the very beginning of life and offer them a place of health and wellness.

Preliminary results of this research study indicate positive outcomes. None of the subjects listed the intervention as a negative experience. Generally speaking, the OPB process had a positive impact on the subjects as women and as mothers. The OPB process supports a woman to have a deeper understanding of herself in present time and her early, prenatal history, This understanding highlights the significance of a maternal-fetal bonding relationship. Each subject became more invested in the somatic aspects of their personal experiences as they processed their own early wounds, which had previously been untouchable. This gave them a stronger foundation for having children of their own.

The way in which the subjects were chosen for this study is indicative of its intimacy. This was supported by my personal relationship with the material. Heuristic research demands this intimacy, but a practitioner must be cautious and conscious of boundaries, counter-transference, and practitioner fulcrums. It was helpful for me to receive supervision a minimum of three times per month.

The results of the evaluation questionnaire indicate that each subject met her primary goal, and the secondary goal was either not identified or was not of the same

importance. The significance of my personal experience was identified as somewhat, very, or extremely helpful. The later accurately met this research's intention.

Out of the 5 subjects, 4 saw themselves as co-researchers or co-participants, which qualifies this as heuristic research. Only 1 subject did not see herself as a co-researcher, but settled into her comfort place, which was familiar. This is evidenced by her statement, "I followed Tera's lead" (Appendix X). The idea of perceiving herself as a co-researcher had the effect of dissociation. It is a huge step for a subject who is doing this kind of work to call herself a co-researcher. The ability to take on, or not, this position is a reflection of early imprinting. One subject wrote at the end of her questionnaire that this was very hard work.

Unfortunately, when it came time for A.M. to go to the hospital, her pain was extraordinary, she was frightened and both her doctor and her midwife were not present for her for a variety of unprofessional reasons. She gave birth by herself without a co-participant to advocate for her at a critical time. There was no lead to follow until it was critical. She had been left alone to labor. Her husband was there with her but he was in shock and overwhelm.

This demands future investigation and research around two issues. This example points to the need for an extension of the practitioner-dyadic bonding relationship through labor and delivery. This support would prevent any break in the continuity of the sequence, and therefore, the continuation of safe space. The trauma of transitions, both in general and specifically, would benefit from the support.

The results for question 12 reveals an extraordinary receptivity of the 5 subjects. This is not easy material, and the process is deep and hard. It is possible this is a

demonstration of the subjects' commitment to conscious parenting, a reflection of the one-on-one sessions, the subjects' desire to understand the process or their sophistication as educated women.

While D fit into this study, future studies should consider research where all of the subjects are using in-vitro (IVF), cycles. The dynamic of inserting technology into the bonding relationship is enormous, both inside the mother and outside in her environment. Even if the desire is the same, the process of IVF is overwhelming, often stressful, the women are considered high risk and the medical system is focused on the outcome and not the process. All of these issues become part of the collage of early imprinting.

Lipton, in his interview with me in June, 2012, does not completely concur with me about the effect of IVF. His view is that the baby and the mother have the same chemistry during an IVF cycle, so it is not necessarily disruptive. Lipton disagrees with Castellino, Sills, and Chamberlain that a mother differentiating herself from her prenate, "it is my problem, not yours" does not diminish the prenate's inclusion in the "problem" because the maternal-fetal blood chemistry is the same.

The assessment of question 15 is challenging because its phrasing is confusing. Nonverbal contact can also be physical. The subject's responses reveal their understanding of what was being asked, but what was being investigated was confusing. Future research should explore: physical and nonphysical, verbal and nonverbal, or nonverbal and physical. It would be interesting to explore this more.

All of the subjects and their children remain clients, indicating a positive, effective experience. Future research might include longitudinal studies that explore the relationship between mother and child in 5, 10, and 20 years from now.

CHAPTER 5

CONCLUSIONS

Chapter 5 presents the summary, discussion, and recommendations for this dissertation research project. The summary section gives an overview of the research project issue being investigated. The results review the present the findings. The discussion section presents an analysis of the study's findings based on the evaluation questionnaire and relevant anecdotal information. In the third section, or recommendations section, I present my thoughts regarding future research and my desire to use this format to work with young adults.

Problem

The dissertation research on the prenatal bonding relationship was developed carefully and consciously over the past 20 years. I created a process, OPB, that is designed to be therapeutic, educational, and a way in which practitioners can actively support the prenatal, bonding relationship between a mother and her baby. The OPB process fills a gap in the maternal-fetal connection with active dyadic bonding practices that have been absent. Historically, PPN has claimed that the prenate is a conscious and sentient being that is capable of relationship during pregnancy (McCarty, 2004). History

has demonstrated that the consequences of no prenatal bonding range from violence, hypertension, child abuse, and personality disorders to eating disorders and theft (Karr-Morse & Wiley, 1997).

My dissertation argues that while we have been talking about what bonding is, we have not researched how to bond in prenatal life. We have also overlooked the somatic aspects of bonding. What has been missing is how the bonding relationship is facilitated and a way in which mothers and prenates can sensate this early relationship. The insertion of the OPB process gives each subject in this study the opportunity to explore her own prenatal story; enables her to shift her focus to perceive from the inside out, to resource, to track the sensations in her body, to acknowledge the influences of transgenerational imprinting, to understand the significance of the maternal-fetal relationship, and to pursue active support for this sacred and critical time (Wirth, 2001).

Since the 1980s, groundbreaking research has suggested that the baby in-utero is active, curious, and capable of communication (Chamberlain, 1994a, 1994b, 1997, 1999; Chamberlain & Arms, 1999). PPN offers numerous examples of prenatal skills (Castellino, personal communication, December 9, 2000). We can therefore infer that because the prenate is a dynamic being, it is possible to develop this relationship very early, both intellectually and through sensation.

Lipton (personal communication, June 27, 2012) states that the chemistry of the mother's blood and the chemistry of the prenate's blood are the same. Castellino (personal communication, December 9, 2000) states that because the mother and prenate are merged, the mother is the environment for the prenate during gestation. The mother's experience is also the baby's experience. Both of these experts state that understanding

this is critical to make gestation a positive and active bonding relationship. This dissertation proposes that it is possible to track the maternal-fetal relationship during gestation, birth, and after birth. OPB creates relationships, communication skills, self-discovery, conscious parenting, and the commitment to human beings in later generations.

The OPB process was created out of my desire for health, healing, love, and to support the understanding of my own prenatal trauma and the personal challenges of my efforts to have a baby. This desire led me to a compilation of my life experience, trainings, teaching, and academics. I have been motivated to reframe my early experience, build more resources, and intervene in those places that recapitulate feelings and behaviors that no longer serve me.

My life has changed dramatically during this time and I have been blessed with wonderful teachers, mentors, colleagues, and friends. It is, therefore, a privilege to offer similar possibilities to other individuals. The OPB process being presented supports a client to come into a different relationship with these early patterns.

OPB aims to facilitate the mother's somatic discernment of the effects of forces both outside and inside the womb. This facilitation supports the mother to better balance, harmonize, and self-regulate, thus enabling attunement with and the creation of safe space for the developing prenate.

The cooperative efforts of the practitioner and the subjects are integral to heuristic research. The co-researchers and co-participants, as they are called, focus on similar interests and passions. The co-facilitation maintains a session's pacing, which is critical in the exploration of the subject's personal history and imprint patterning. In this

research, the subjects' passions are conscious parenting and the desire to bring children into the world in a healthy and bonded relationship with their primary caretakers.

Summary of Findings

An overall analysis of this pilot research presents positive results. The mothers gave birth to healthy children and felt bonded in their relationships with their children after birth. The subjects had only good things to say about their experience. The subjects stated they felt *held* as women and as mothers. Each subject was invested in learning to experience relationship somatically. The felt-sense of early wounding changed over time because the subject had more resources and was capable of renegotiating a different relationship with her past patterning.

It cannot be emphasized enough that the OPB process can be intense and requires an equally strong commitment as demonstrated by these 5 women. Each subject's experience was unique. The evaluation questionnaire stated that all 5 subjects had obtained her primary goal.

Of the 5 subjects, 4 felt like they were assuming a position of co-investigation and co-participation. The fifth subject did not understand the meaning of what was being asked. A.M. settled instead into her comfort zone and then into collapse. This did not support her when she went into labor.

Other reported results were positive. The subjects said that self-discovery made a significant or a very significant difference. From 3 to 5 subjects confirmed that, discovering her prenatal story; what the body needs to feel supported; prenatal bonding; the significance of prenatal life on developmental, psychological, and behavioral issues; and how to connect with your baby through gestation, was critical.

All 5 subjects called the OPB process a positive experience. All of the subjects confirmed they would work with me again, and all have remained as clients together with their families. Every subject has referred at least three other clients.

Discussion

The discussion section of Chapter 5 presents a more complete assessment and perception of the findings. In this section, I present pertinent thoughts revealed in this pilot study, which require further consideration. These include:

1. Is there a best time for a woman to begin the OPB process, and should it be extended to include aftercare as part of the required process?
2. The basic principles of this process require a practitioner's sophistication, experience, and commitment.
3. There are specific factors that must be considered for women who choose IVF or ovum and embryo retrieval.
4. A practitioner must continue learning long after receiving certification. How to further develop support and accurate reflection skills?
5. Final thoughts

Consideration One: Is There a Best Time for a Woman to Begin the OPB Process, and Should It Be Extended to Include Aftercare as Part of the Required Process?

When I initiated the OPB process, I created contracts with my clients. The contracts included all services from before conception through aftercare. The services included support for a woman and her family during preconception and prenatal care, and visits to the doctor if desired. The client and I wrote a birth plan, advocating a woman's choice in giving birth. Aftercare was negotiated ahead of time.

In the case of A.M., extending the process through the birth of her first daughter could have made a significant difference. When A.M. arrived at the hospital, she was left to labor alone in an empty room. A.M. is a courageous woman, but she was terrified of being left alone with pain, distress, and confusion. Her husband was just as overwhelmed. My belief was that many women who chose a hospital delivery need an advocate.

Infrequently, someone poked her head in, but for the most part, A.M. states she was treated as an imposition. Without her knowing, A.M.'s midwife was prevented from entering the hospital, and her doctor did not show up either. Surprisingly, A.M.'s father is a doctor, and therefore, the assumption was made that everything should run smoothly.

I do not assume that I know better than the medical personnel, however, quality care and the right to deliver a baby safely must be attended to. A.M. needed someone she trusted to hold space with her safely. I was not contacted until after the baby was born and placed in the NICU. The birth itself had been traumatic, and perhaps a caesarian section was necessary. When I arrived at the hospital, there was confusion, but I was able give support to A.M., her husband, and her baby. The benefits of extending the process through birth and aftercare would make transitions easier.

In A.M.'s second pregnancy, she made clearer choices, and her second little girl is doing well. She chose not to work with the former practitioners, but infrequently kept in touch. I understood the choice of no reminders. It demonstrated to me that this was a woman no longer in collapse. A.M. returned for sessions with me after her baby was 1 year old. She knew that her initial experience needed attention.

The idea of extending the OPB process has value, and simultaneously must be researched further. Each client is unique, and client choice is essential. Whatever option chosen must empower women and allow them to feel safe.

Consideration Two: Process Principles. What Holds the Container so that the Client Experiences Safety?

The process principles identified in this study deserve understanding. A practitioner's ability to work with these principles requires experience, patience, and continued study. It is what Castellino means when he speaks about building muscle.

This process of dynamic *conversation* between the client dyad and the practitioner is also happening with the mother and the prenate. The practitioner-client relationship is highly sensitive and vulnerable (Emerson, 1995; Emerson, 2002; McCarty, 2004). Each of us wants to be heard at the deepest level. Dynamic conversation makes this possible by the way in which a practitioner listens and comes into fluid relationship with the client's core (Gilchrist, 2006, 2011).

The ability to be aware of the many fields in the client system while simultaneously tracking them is a skill that is learned over time. The practitioner's responsibility is to come into relationship with each field using the process principles without trying to fix anything. Nothing is broken.

The physical and spatial relationship between the practitioner and the maternal-fetal dyad is subtle. This relationship is held consciously without creating history for the dyad. This entails a practitioner teaching each client the felt sense of safety physically and spatially. Clients take their time because they are unfamiliar with choosing the contact that best suits them.

Clarity about the client's intention is detailed verbally as well as somatically. If the intention is to be calm, the client is asked to describe the felt sense of calm; in other words, if you were calm, how would you know it? Once the intention is identified, a practitioner will ask for related history, but the whole story is not usually necessary. The tracking is carefully discussed and paced so that a client does not go into overwhelm or shutdown. The following are critical practitioner skills: staying in present time; maintaining the best pacing; and the ability for the mother, prenate, and the practitioner to settle into stillness. When a woman is pregnant, the practitioner tracks both the maternal and fetal systems simultaneously.

Consideration Three: There Are Specific Factors that Must be Considered for Women Who Choose IVF or Ovum and Embryo Retrieval

I believe that in order for a client with fertility issues to pursue OPB, specific expertise on the part of the practitioner is required. It is impossible for anyone to understand the IVF experience without actually experiencing it. My 7-year experience with IVF allows me to say that at the very least the fertility journey becomes a way of life. The practitioner-client choice must be the right fit because what these women are experiencing is rigorous.

When I met D, she was in a state of freeze and in need of a support system. Like many women in similar situations, D was determined at any cost, physical or financial, to have a baby. Her nervous system was overwhelmed, and it was no longer self-regulating in present time. D had experienced four cycles before getting pregnant. When I first met D, she was dissociated, and she wore a look of terror on her face.

It takes a lot of courage for someone like D to sign up for something completely unfamiliar, like OPB. D was eager to start OPB because she knew she was not handling things very well by herself. D had a number of resources she did not recognize: a desire to learn, her desire to have children, her therapeutic experience, her strong constitution, her willingness to give as much time as necessary, her finances, and her unwavering desire to change ancestral patterning.

D stated her intention was to be able to connect with her baby prenatally and resolve her fear of being pregnant. D, like the 4 other subjects, realized the significance of attending to her personal growth. D's wanted to embody the process, settle her system, and receive support to stay present in her relationship to her baby.

Another client who was impregnated through IVF conceived twin girls. Her story presents a different perception of the multidimensional challenges of fertility and technology. Her story is complex.

There is an odd sort of bonding between women who go through IVF. Typically, they change doctors at least once because a friend of a friend says the best doctor is Dr. ____. That was M's story. The change of doctors for M was hell, and she returned to her original doctor.

The fertility protocols were challenging, and this one was exhausting. It is likely that the protocols increase the likelihood of adrenal exhaustion, nervous system imbalances, and feelings of victimhood. A woman does not choose IVF unless she is deeply committed and can afford the high costs. This was M's story as well. There had been a significant amount of trauma, and she wore the burden of it all.

M's story includes details that are too long for this study. Essentially, the fertility protocols left her trying to appear always happy. No one seemed to notice but me, possibly because her extended family was in shock as well. Her response would be, "I am fine." A practitioner could track M and see that was not the case.

M gave birth to healthy, beautiful, twin girls. Three months later, one of the girls became ill with meningitis. In the hospital, the baby's mandated isolation was ignored. The baby got an infection and suffered permanent brain damage. The hospital passed it off. The family tried to get their records from the hospital, and the response was always the same. The records are missing, lost, filed in the vault, and every hospital staff she spoke with said the same. M was already so tired.

Fertility doctors have a monopoly over fertility medicine, and most of the doctors have lawyers on staff. M's lawyer refused the case for two reasons: It takes a very long time, and there is not much money for the service. I had been told something similar and can attest to the wounding this lack of attention creates. In my case, my doctor was in California. He was so afraid of my suing him for his obvious negligence that he reached out to every doctor I had seen to get their support. The burden of this increases the stress and exhaustion.

Another case study reveals what happens when a woman does become pregnant through IVF. N had many ups and downs in her fertility story, beginning with the fact that she was 40 and her husband was not as eager as she to have a family. One afternoon, she arrives for her session looking sad and unhappy. When I asked her what was bothering her, she responded "I am pregnant, now what do I do?" During the process N had received all kinds of support from the doctors and nurses where she has been treated.

I called this fertility cheerleading. Once the patient becomes pregnant, the doctor drops her because his job is complete. This was abrupt and another challenge for N. She said, "It was as if I was a statistic and once pregnant, I was no longer necessary."

Due to her age and because she had gotten pregnant through IVF, she was considered high risk. She was expected to be at her doctor's office at least twice. She knew this was not the same as natural conception and she was stressed by the terminology "high risk." N said this type of care made her more worried and asked how this was affecting her baby. I wondered how this was affecting the baby and the bonding relationship.

Consideration Four: A Practitioner Must Continue Learning Long after Receiving Certification. How to Further Develop Support and Accurate Reflection Skills

Practitioner skill is an issue that is often ignored or overlooked. My opinion is that a practitioner should continue to learn and practice new and old skills. The experts like Sutherland, Becker, and Fulford, insisted on continuing to practice and study. It takes a lifetime, and even that is not enough.

Supervision is equally important. One practitioner cannot hold everything and another opinion is a gift or a different option. Working within the OPB process requires a team of resource individuals. I do supervision at least three times a month. I receive other supervision as needed from my resource team. Ray Castellino has been an amazing support in my life, and his supervision gave me accurate reflection and his teachings gave me back my life. He has always been right there for me.

Equally important is a practitioner's care of her personal development and understanding. I ask my students to receive bodywork on a regular basis. The OPB process requires an evolutionary skill commitment, and this requires that the practitioner

canvas be as clear and as compassionate as possible. I believe that a practitioner cannot safely do the work without receiving the same for herself.

The way I see it, some sessions are good and others not so good. Some sessions are magical when the practitioner can let go and work with the Breath of Life, followed by deepening into stillness. In my practice, I believe that each session is another opportunity to "get it," and I am grateful to Spirit each and every time.

Consideration Five: Final Thoughts

I have been blessed with amazing clients and others who commit to themselves and the work. To receive this deep trust and willingness from men, women, and children means everything and allows me to continue in service. I desire this deeply in my heart and in my soul.

I have been told that referring others to experience my work is the greatest way of saying thank you. I am grateful for these other travelers. The greatest thank you for me is that special look in their eyes that tells me they know they are being seen and their souls are held for the first time in a long time.

Limitations of the Research

There are several limitations to this research. First, as is often the case with qualitative research, this research is not generalizable to the larger population of pregnant women because of a lack of a random probability sample. Second, I created the research instruments and did not test them for validity and reliability. In the future, valid and reliable measures should be used so that comparisons can be made across studies and to ensure that the researcher is consistently measuring what she intends to measure. Third, this research does not use a control group or counterfactual. In other words, readers have

no idea what would have happened to these women had they not participated in the intervention. Finally, this research can make no causal claims. In the future, random allocation to experimental and control conditions would allow for causal claims.

Recommendations for Future Research, Practice, and Teaching

The purpose of my dissertation research was to demonstrate the significance of prenatal bonding in a maternal-fetal relationship and that it needs to be cherished and actively supported. To support my intention, I developed a process whereby the trio of practitioner-mother-prenate can have a theoretical understanding as well as actually experience the felt sense of this primary relationship.

This is a pilot study. There is no prior research on this topic. OPB was specifically developed for the purpose of learning the significance of prenatal bonding, as well as experiencing the physical and somatic aspects of bonding. The results were positive, however, future research is necessary.

My initial recommendation is to conduct the same study again but this time with a more varied subject base. In this study, all of the women were demographically, educationally, and socioeconomically similar. Their intentions were similar. All 5 wanted to be conscious parents. While the current study has these subject selection limitations, I imagine there would be limitations with a more varied subject base. My assumptions are listed below.

- A different population might be less educated and have less interest.
- BCST is a powerful form of bodywork. Often a client will know before she gets there that this is the wrong choice. There could be dropouts before getting started. This would have to be accounted for when doing the subject selection.

- This study requires a lot of time and energy. In the present research, money was not an issue. It is possible grant money could be obtained to do another study with less affluent individuals.
- The commitment to this research for the subject is not easy. I would need to investigate this further.
- A more rigorous study design would be used. Ideally, I would employ a Randomized Controlled Trial (RCT) with a sample size large enough to detect an effect and use valid and reliable measures that I would administer at baseline and during two follow-up points.
- A longitudinal study design could also be paired with the RCT design to follow the participants over longer a longer period of time to see if the effects dissipate or are maintained.

The second recommendation is based on a curiosity that I have been thinking about for some time. I would like to develop a study that looks at the relationship between prenatal bonding and caesarian section (CS). It has been shown that a CS has implications with regard to personality development (Castellino, 1999a, 1999b). Similarly, I would like to do this research with only women who are experiencing IVF, egg and sperm donors, and embryo and ovum freezing.

The third recommendation is to widely disseminate the findings and if positive, take the intervention to scale. This recommendation is based on a personal passion as well as a critical, fundamental need for human beings. How can we educate people to embrace these ideas? To this end, I am working on a documentary on bonding, but funding is needed to complete this project. Funding sources so far have been limited. One

way to scale up the intervention is to create a curriculum and teach courses on the intervention and the research surrounding the program. Working with many more experienced practitioners would market these ideas more quickly. Perhaps PPN could be a part of a curriculum with both on-line study and in-person classes to connect theory with bodywork.

Finally, I wish to explain I used this process, in a modified form, with men and women who had other needs. This enabled me to explore the significance of prenatal experiences for all human beings. There is value for all of us in exploring how we were conceived, what the discovery period was like, the felt sense of gestation, and the birthing process itself. We cannot overlook what happens after birth, whether the baby is left with her mother or removed.

This work has become a way of life for me in truth and integrity. I always find myself in wonderment of Spirit. My intention is to take this process and work with teenagers. This is the population that could most benefit at this time. All of the material necessary is already within us. Most people have forgotten there are always choices and a way out of those stuck places.

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Appendices

Appendix A

Intake Form

Intake Form

If you would like to schedule an appointment at Tera's NYC office, please call 212.371.0700 or 212.249.7711. If you would like to schedule and appointment at Tera's Santa Fe office, please call 917.597.9698. After scheduling your appointment please fill out the intake form below.

Name

Gender Select

Address

Address (con't)

City

State

Zip Code

Email

Telephone (Day)

Telephone (Evening)

Marital Status

Number of Children Select

Occupation

FINANCIAL POLICY
PAYMENT (CHECK OR CASH) IS REQUESTED AT THE END OF EACH VISIT, UNLESS SPECIFIC ARRANGEMENTS ARE MADE.

CANCELLATION POLICY
THE TIME OF YOUR APPOINTMENT IS RESERVED FOR YOU. APPOINTMENTS CANCELLED WITH LESS THAN 48 HOURS NOTICE WILL BE CHARGED FOR PAYMENT IN FULL.

Signature Type your name here

Date mm/dd/yyyy

WHAT ARE YOUR GOALS FOR RECEIVING THIS WORK?

PERSONAL HEALTH HISTORY

HEIGHT

WEIGHT

DO YOU HAVE ANY AREA OF YOUR BODY THAT NEEDS SPECIAL CONSIDERATION? Select

IF YES, PLEASE EXPLAIN

DATE OF LAST MEDICAL EXAM

ARE YOU CURRENTLY UNDER MEDICAL CARE? Select

IF YES, PLEASE GIVE THE NAME OF PROVIDER AND CONDITION BEING TREATED

ARE YOU PRESENTLY TAKING ANY MEDICATION? Select

IF YES, PLEASE LIST NAMES OF MEDICATION(S), FOR WHAT CONDITION

ARE YOU PRESENTLY USING ALCOHOL OR NICOTINE? Select

HAVE YOU EVER WORN BRACES? Select

HOW WOULD YOU DESCRIBE YOUR DIET?

DO YOU TAKE VITAMINS, HERBS OR OTHER DIETARY SUPPLEMENTS? Select

IF YES, PLEASE DESCRIBE

HAVE YOU EVER RECEIVED BODYTHERAPY? Select

IF YES, PLEASE DESCRIBE AND FOR WHAT PERIOD OF TIME

ARE YOU CURRENTLY RECEIVING REGULAR BODYWORK OR OTHER THERAPY? Select

---

HEALTH HISTORY

HAVE YOU EVER HAD ANY TYPE OF ACCIDENT? Select

IF YES, PLEASE DESCRIBE AND INCLUDE DATES

HAVE YOU EVER BROKEN ANY BONES OR HAD SEVERE FALLS? Select

HAVE YOU EVER HAD ANY TYPE OF SURGERY? Select

IF YES, PLEASE GIVE TYPE(S) AND DATE(S)

DO YOU HAVE ANY LIMITS IN MOBILITY? Select

IF YES, PLEASE DESCRIBE

DO YOU EXERCISE? Select

PLEASE DESCRIBE TYPE AND FREQUENCY

DESCRIBE METHODS YOU USE TO MANAGE STRESS IN YOUR LIFE

WHAT DO YOU DO FOR FUN?

ANY ADDITIONAL COMMENTS REGARDING YOUR HEALTH – PLEASE DESCRIBE ANY OTHER CHRONIC OR ACUTE CONDITIONS, I.E. LOW/HIGH BLOOD PRESSURE, DIABETES, ULCER, SLEEP DISORDERS, ETC.

ANYTHING ELSE ABOUT YOUR LIFE HISTORY OR CURRENT SITUATION THAT I SHOULD KNOW AT THIS TIME?

BIRTH INFORMATION/HISTORY

AN UNDERSTANDING OF YOUR BIRTH IS A SIGNIFICANT PART OF THIS WORK. TRAUMA MAY HAVE OCCURRED DURING THE BIRTH PROCESS AND EARLY PATTERNING OR IMPRINTING MAY BE REVEALED DURING YOUR SESSIONS. (THIS WILL BE EXPLAINED IN MORE DETAIL).

PLEASE RELATE ANY INFORMATION YOU MAY HAVE REGARDING YOUR CONCEPTION: (PLANNED, WANTED, CONFUSED, UNWANTED)

PLEASE CHECK WHAT YOU KNOW OR THINK APPLIES TO YOUR BIRTH HISTORY

- ☐ AN UNMEDICATED VAGINAL BIRTH IN A HOSPITAL
- ☐ AN UNMEDICATED VAGINAL BIRTH AT HOME
- ☐ AN ANESTHESIA BIRTH
- ☐ WITH FORCEPS
- ☐ VACUUM EXTRACTION
- ☐ WITH FETAL HEART MONITOR
- ☐ C-SECTION
- ☐ BREECH
- ☐ A MULTIPLE BIRTH
- ☐ PRIOR MISCARRIAGES (BEFORE YOU WERE CONCEIVED)
- ☐ OTHER BIRTH COMPLICATIONS

IF CHECKED OTHER BIRTH COMPLICATIONS, PLEASE DESCRIBE

PLEASE CHECK WHAT YOU KNOW OR THINK APPLIES TO YOUR PRENATAL AND BIRTH HISTORY

☐ **I HAD A TWIN THAT DID NOT LIVE**

AT WHAT TIME IN THE PREGNANCY OR POST NATAL TIME DID THE TWIN LEAVE?

☐ **I WAS PREMATURE**

HOW MANY WEEKS?

☐ **I WAS IN A NEONATAL INTENSIVE CARE UNIT**

HOW LONG?

☐ **I WAS IN AN INCUBATOR**

HOW LONG?

WAS YOUR FATHER PRESENT AT YOUR BIRTH? Select

WERE YOU SEPARATED FROM YOUR MOTHER AT BIRTH (SENT TO A NURSERY)? Select

WERE YOU BREAST FED? Select

IF YES, FOR HOW LONG?

PLEASE NOTE ANY INTERVENTIONS SHORTLY AFTER BIRTH SUCH AS HOSPITALIZATION FOR ILLNESS, OPERATIONS, ILLNESS AS AN INFANT OR A CHILD.

WHAT DO YOU KNOW ABOUT YOUR LIFE IN THE WOMB? I.E PHYSICAL EFFECTS (MATERNAL OR PATERNAL SMOKING, DRINKING, DRUGS, MOM'S DIET) AND EMOTIONAL EFFECTS, INCLUDING ABSENCE/PRESENCE OF FATHER DURING PREGNANCY/BIRTH, PARENTS' RELATIONSHIP, FAMILY TRAUMA?

DO YOU OR DID YOU HAVE SIBLINGS? INDICATE AGES RELATIVE TO YOU, NATURE OF RELATIONSHIP AS CHILDREN.

ADDITIONAL COMMENTS

PLEASE MAKE YOUR ANSWERS AS COMPLETE AS POSSIBLE. YOUR ANSWERS WILL HELP ME TO CUSTOMIZE YOUR SESSIONS TO YOUR GREATEST BENEFIT. THANK YOU.

PLEASE PRESS THE "SEND" BUTTON WHEN YOU ARE FINISHED FILLING OUT THE INTAKE FORM.

Dislcaimer: This treatment is not meant to take the place of allopathic medicine. If you have, or suspect you have, a health problem,or have questions about your individual medical situation, you should consult your physician or other qualified health-care provider.

Send

Appendix B

Evaluation Form

Dear Friend,

Thank you for consenting to complete this survey. Its goal is to determine – as an active co-participant in the process – whether our work supported and enhanced prenatal bonding with your child, and if so, how it did that. If our work together didn't have those results, the survey hopes to identify ways the practice can be enhanced to better serve you and others going forward.

Please answer each question openly and frankly. What worked? What did not work? Where did you need more flexibility, other options or more information?

As a parent, you appreciate the significance of parental involvement in creating an intimate womb space during preconception and throughout the nine-month gestation period. Your ability to bond with your baby prenatally is critical to the child's wellbeing and development. If every child had a similar experience, can you imagine the possibilities? Your open and honest answers to these questions will help develop a process to provide that experience for others.

Please email your completed surveys to lisat4242@hotmail.com. Thank you in advance for your time.

Kindly,

Tera

Your Name: _____
Today's Date: _____

1. How did you find me for this type of therapy? (Select only one)
    a. Referred by another client
    b. Referred by another practitioner in this type of therapy or other alternative modality
    c. Referred by a medical doctor
    d. Referred by a psychologist or psychiatrist
    e. Already seeing me for another reason
    f. Other (Please specify below; use a separate sheet if more space is needed.)
    _____
    _____
    _____
    _____

2. What was your primary goal in choosing prenatal therapy? (Select only one)
    a. More education about prenatal dynamics
    b. Therapeutic and personal growth and support
    c. Support with becoming pregnant (including IVF, inseminations etc)
    d. Resolve fear of being pregnant
    e. Other (Please explain below; use a separate sheet if more space is needed.)
    _____
    ____)
    _____
    _____
    _____

3. What was your secondary goal in choosing prenatal therapy? (Select only one)
    a. More education about prenatal dynamics
    b. Therapeutic and personal growth and support
    c. Support with becoming pregnant (including IVF, inseminations etc)
    d. Resolve fear of being pregnant
    e. No other goal
    f. Other (Please explain below; use a separate sheet if more space is needed.)
    _____
    _____
    _____
    _____

4. Did you meet your primary desired outcome?
    a. Yes
    b. No

5. If you **did not meet** your desired outcome, which of the following would best describe why.

a. I did not receive the guidance from the practitioner that I wanted.
b. I was frightened by the physical contact in the table work.
c. I received way too much information that I found unnecessary.
d. I was unable to meet my goals
e. I refused to explore my own conception and birth.
f. Other (Please explain below; use a separate sheet if more space is needed.)

_____
_____
_____
_____

6. On the following scale of 1 to 5, how helpful was it to know that your therapist had explored and experienced a wide range of prenatal issues, including her own prenatal bonding, the relationship between the IVF protocol and maternal-fetal bonding, the significance of choices prenatally, the challenges of a failed pregnancy or the need for more conscious parenting herself?
    1. Not helpful at all
    2. Somewhat helpful
    3. Helpful
    4. Very helpful
    5. Extremely helpful

7. **If you answered 3, 4 or 5 to the previous question** (it was at least helpful to know that as your therapist, I have explored and experienced prenatal bonding myself), please explain below why you found that helpful; ; use a separate sheet if more space is needed.).

_____
_____
_____
_____
_____

8. Did you pursue fertility treatments to become pregnant?
    a. Yes
    b. No

9. **If you answered Yes to the question above** (You pursued fertility treatments to become pregnant), how did working with Tera affect the IVF protocols and your pregnancy?
    a. I was less anxious
    b. The emotional up and downs felt gentler
    c. It was amazing to have a support person all the way through the process

d. Tera gave me permission to rest, and my doctor did not
e. It helped me maintain my self-respect
f. In other ways

10. Like other therapies that are new, the work of prenatal bonding is a developing process between the client (you) and the practitioner (Tera). On the following scale of 1 to 4, please rate the degree to which you felt you were a co-researcher or co-participant in the development of our work.
    1. I was not a co-researcher or co-participant at all; I followed Tera's lead completely
    2. I was somewhat of a co-researcher or co-participant; we discovered some new things with my help and input
    3. I was a co-researcher or co-participant more often than not; we often found new ways of doing the work with my feedback.
    4. I was a regular co-researcher and co-participant; we constantly worked together to find new insights and methods
    5. I felt completely controlled by Tera

11. Using the following scale of 1 through 5, please identify how this work facilitated self-discovery for you and challenged your relationship with yourself?
    1. It made no difference at all
    2. It made a slight difference
    3. It made a significant difference
    4. It made a very significant difference
    5. I am unsure
12. Did you learn or experience any of the following? (Circle all that apply)
    a. Information about your own prenatal story
    b. What your body needs to feel supported
    c. An understanding of prenatal bonding
    d. The significance of prenatal life on developmental, psychological and behavioral issues
    e. How to connect with your baby throughout gestation

13. In your own words, what would have enhanced your experience in these sessions or would enhance future sessions? (Use a separate sheet if more space is needed.)

_____

_____

_____

_____

_____

14 If this type of therapy were a person with human attributes, what words would you use to describe its personality (e.g., powerful, compassionate, smart, fun, etc.)?

_____

_____

_____

15. Using the following scale of 1 to 5, please identify the difference that physical and nonverbal contact made for you.
    1. It made no difference at all
    2. It made a slight difference
    3. I made a significant difference
    4. It made a very significant difference
    5. I am unsure

16. **If you answered 2, 3 or 4 to the previous question** (the physical or nonverbal contact I used in the sessions made at least a slight difference for you), please explain what the difference was that you felt. Use a separate sheet if more space is needed.

    _____

    _____

    _____

    _____

    _____

17. Would you work with Tera again?
    a. Yes
    b. No. Please explain why:

       _____

       _____

       _____

       _____

18. Would recommend this process to someone else?
    a. Yes
    b. No. Please explain why you would not:

       _____

       _____

       _____

       _____

Thank you!

Appendix C
Case Notes

Name: D
Date: 9/12/2007
Subject Observations: Comments
2nd trimester
Continue exploration of somatic process
? what is a sensation? why is it significant?
Begin to explore tracking
Anxiety in ANS and overwhelm: system is in shut down
"There is so much for me to learn and do"
Comment: "Is a baby in the womb a person?"
View photos of anatomy development
Use visual with sensation
Bodywork:
Resourcing: negotiate physical and nonverbal contact
Introduce D to her prenate
Allow table to support her (not her supporting the table)
Still-points: both inhalation and exhalation
Assessment/Thoughts:
Continue resourcing, tracking and still-points
Support D to come into relationship with fear and anxiety
Long tide
Sacral to Occiput

Name: S
Date: September 27, 2000
Subject Observation: Comments
S is early in the first trimester; second week
Note: fetal matrix and potency
Make contact with prenate: V/NV
Raised blood pressure in 1st and 3rd trimesters
Discuss bonding with fetus; prepare sacred space; support and resources
Note anxiety re: marriage
Bodywork:
Somatic symptoms of stress: heat, jangly Nx and discharge shock; esp. cranial base
Cranial compression
Dissociated/anxiety esp. pressure on the chest T1-T8

Settling and stillpoints
ANS balancing/systemic balancing/Nx regulation
- Perennial work
Assessment:
Continue with the same:
-bonding
-Nx balance, regulation
-Stillpoints
Planning:
How to work with stress; track stress, embodiment in present time;
Pacing skills
Assessment:

BIOGRAPHICAL SKETCH

Tera Judell graduated from Denison University in 1975 with a Bachelor of Science degree. In 1977, Tera received her master's degree in Clinical Social Work from the University of Denver. After several years in practice as a social worker Tera's focus shifted to incorporate body-oriented modalities, including Phoenix Rising Yoga Therapy, Trauma Therapy, Polarity Therapy with Roger Gilchrist, Biodynamic Craniosacral Therapy with Franklin Sills, Prenatal and Perinatal Foundation Trainings with Ray Castellino, and Pediatric Craniosacral Therapy. Tera received certificates for each of these trainings and has assisted, taught, and supervised students for each of these trainings.

Tera has been working with fertility and infertility issues, pregnancy, maternal-fetal bonding, and post-partum issues for more than 25 years. She is one of very few practitioners who works with the prenate and the maternal-fetal relationship with craniosacral therapy. Her experience includes working with women who are compromised by in-vitro fertilization and need support in recovery; she also works as a doula for expectant mothers.

Presently, Tera is developing a documentary about prenatal bonding.