Trends and Influences in Pre- and Perinatal Psychology A Summary

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Abstract: The field of pre- and perinatal psychology (PPN) is informed by the work of many individuals, therapeutic and academic communities, and scientific achievements. Trends and influences on the field itself can be divided into several main categories: origins, historical threads, formal channels, legitimizing scientific studies and approaches, and finally, integration of therapeutic approaches. It is difficult to put all of these influences in one chronological chart; it is more like they weave together to form a tapestry. The road to the present has been long and winding, and hard to capture, although colorful. The pioneering individuals who have carried this paradigm since its beginning are to be congratulated. The one idea for the reader to grasp from this paper is that therapies, approaches, and teachings are now integrating into a much smoother array of healing and educational tools.

Keywords: Pre and perinatal psychology, History of psychology, Therapeutic approaches, Theory

Exploring the categories within the pre and perinatal (PPN) paradigm is worth several hundred pages of stories, studies, and experiences of the people upon whose shoulders new students stand. So, for the aspiring learner, we have divided historical and important information into the previously mentioned categories that are starting points for further research. Each category is summarized with a brief description and important names and dates.

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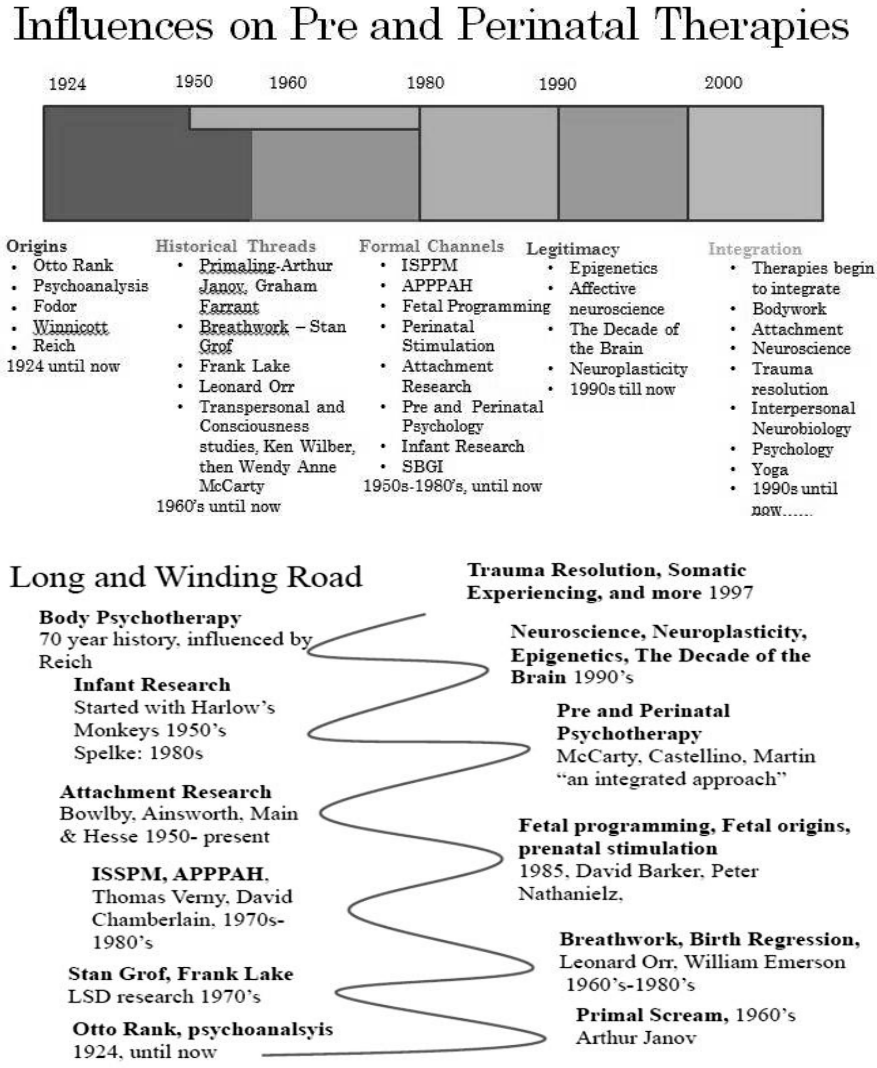

Origins

Starting with Otto Rank (1924/1929) in 1924 with his slim book in German, *The Trauma of Birth*, psychoanalytic theory included birth and prenatal experience as influential in psychological and mental health. Rank was a protégée of Sigmund Freud, although their relationship

ended after Freud rejected Rank's trauma of birth theory, resulting in lack of focus on birth trauma in psychology until the latter half of the 20th century when it was, in effect, rediscovered by theorists on both sides of the Atlantic. The psychoanalytic approach dominated the field of psychology for several decades and continues to be a vital part of psychological theory and practice today.

A major branch of psychoanalysis, originating with the work of Wilhelm Reich (1933/1936), was the development of body psychology, more recently known as somatic psychology. Reich was part of Freud's "inner circle," in the early 20th century, but left the fold over differences with Freud. His writing and therapeutic approach on the body-mind connection helped shape the field of body psychotherapy and core energetics.

A pediatric psychoanalyst who contributed to the pre and perinatal thread was Donald Winnicott (1958), who was a pediatrician at Paddington Green Children's Hospital and the Queen's Hospital for Children in London. His 40-year career had a huge impact on maternal-infant relationships. Winnicott was convinced of the efficacy of recognizing and working with birth memories.

A virtually unknown analyst, Sabina Spielrein (1994), wrote the very first paper that ever dealt with the psychology of conception. It was called "Destruction as a Cause of Coming into Being" and was delivered in Vienna in 1912 to the small circle of analysts around Freud. It is a paper at least 50 years ahead of its time and even today it could be studied to advantage.

The first person who attempted to systematically chart the unknown territory of intra-uterine life was the brilliant Scottish psychiatrist R.D. Laing (1976). In his groundbreaking book, *The Facts of Life*, Laing writes, "It seems to me credible...that all our experience in our life cycle from cell one is absorbed and stored from the beginning, perhaps especially in the beginning. How that may happen I do not know. How can one generate the billions of cells that I now am? We are impossible but for the fact that we are" p. 30. Later he asserts, "It is at least conceivable to me that myths, legends, stories, dreams, fantasies and conduct may contain strong reverberations of our uterine experience" p. 32.

The connection between prenatal and perinatal experiences and myths, fairy tales, and artistic expression has been explored extensively by Lloyd DeMause (1982), Michael Irving (1989), Jeane Rhodes (1997), Ludwig Janus (1997), and Thomas Verny (2002).

Other Historical Threads

Psychotherapist Arthur Janov (1970), who began as a psychoanalyst, created and then promoted what he called Primal Scream. This therapy utilized regression back to childhood and to the prenatal period. The therapy endorsed the re-experiencing of trauma and pain from that time as a method for healing. Janov claims that repressed pain from childhood causes neurosis and that these painful experiences need to be brought into consciousness and felt to be healed. Janov still runs a center in California. There is an organization devoted to this method today, although it is controversial and was not readily accepted in mainstream therapeutic culture.

Janov's book, *Primal Scream* (1970), and his other writings influenced additional therapists to include regressive and cathartic work in their repertoire of methods. Soon more therapies exploring early experiences, including prenatal, birth, and the first year of life, began to appear. Therapists, researchers, and thinkers such as Frank Lake (1981), Stanislov Grof (1976), Graham Farrant (Raymond, 1988), and Leonard Orr (Orr & Ray, 1977/2007) all experimented with regression and rebirthing experiences. Their work has been pivotal for the pre- and perinatal psychology field. Lake and Grof researched LSD and its impact on healing and memory. Lake lived in England and believed that the first trimester prenatally was the most important time in person's life. He, like Grof, found that LSD encouraged abreaction of prenatal and birth experiences. Grof's research and writing significantly influenced regressive therapies. He is one of the founders of the field of transpersonal psychology and a pioneering researcher into the use of non-ordinary states of consciousness for purposes of exploring, healing, and obtaining growth and insights into the human psyche. He created Holotropic Breathwork and developed the Condensed Experience (COEX) system theory from his research which described how memories are not stored as isolated bits but rather as complex constellations of different memories from various periods of a person's life which share the same emotional quality or physical sensation (Grof, 1993). He is responsible for an extensive theoretical framework for the analysis of pre- and perinatal experiences, and is still writing, speaking, and publishing.

Australian Graham Farrant (Raymond, 1988) also researched prenatal experiences and altered states of consciousness, focusing on cellular memory and conception. Leonard Orr (Orr & Ray, 1977/2007), a contemporary of Grof (1976) and Farrant, and still practicing, also uses breathwork and regressive techniques to be "reborn" as a way of

overcoming early trauma. Orr started documenting and working with breathwork in 1967 and continues today.

This combination of regressive therapy that focus on the prenatal period and birth, and the use of regressive techniques, influenced William Emerson, a pioneer in the pre- and perinatal psychology. In the 1970s, Emerson regressed during a psychoanalytic session while studying to be a psychoanalyst and remembered his birth as a twin. The impact of this memory forever changed the course of his life. He went on to study with Frank Lake (1981), later creating a training program, Emerson Training Seminars, that examined prenatal and birth imprints. His work was unique in the field in its focus on working with infants and young children to heal birth and prenatal traumas (Emerson, 1989). He is most known for his study of the birth stages and their emotional and psychological correlates. A student of his, Karlton Terry, went on to create training programs and an organization called the Institute for Pre and Perinatal Education.

With the transpersonal movement in the 1960's came the study of consciousness and spirituality. Stan Grof (1976) helped solidify the field of transpersonal psychology, but its roots are connected work of Otto Rank (1924/1929). Transpersonal psychology looks at spirituality and experiences that transcend the normal human experience. Transpersonal consciousness is still studied today, and is a foundation of the mindfulness movement that is having a profound impact on current health trends.

Formal Channels

Another important thread that has contributed to pre- and perinatal psychology is that of attachment theory. In the 1960s British psychologist John Bowlby (1969) was exploring child development and family patterns. He focused on how attachment difficulties between mother and child were transmitted from one generation to the next. In his development of attachment theory, he proposed the idea that attachment behavior was an evolutionary survival strategy for protecting the infant from predators. The mother forms a secure base from which the child would leave and explore in ever widening circles and then return. He published his ideas in a seminal work, *Attachment and Loss*, *Volume 1: Attachment*, in 1969. His ideas were a departure from traditional psychoanalysis and have become one of the most researched topics in psychology with many follow-up studies. Mary Ainsworth (Ainsworth & Bowlby, 1965), who worked with Bowlby, developed the now-famous research tool called The Strange Situation, a

research protocol that further documented attachment styles. A final layer of attachment theory was developed by Mary Main in collaboration with psychologist Erik Hesse (Main & Hesse, 2010) regarding adult attachment styles. They discovered that transference of attachment style was predictable with up to 85% accuracy with a research tool called the Adult Attachment Interview. These principles and tools are very prevalent today.

Bowlby was not the only professional exploring maternal-infant relations. The field of infant research was getting its start in the years after the World Wars in Europe. Psychoanalyst Rene Spitz (1965) studied orphans starting in 1945, focusing on maternal deprivation and separation. He was one of the first researchers who used direct child observation as an experimental method. In 1958 psychologist Harry Harlow (1958) reported the results from his experiments with baby macaque monkeys and cloth or wire mothers in now-famous studies regarding the mother-infant bond. Infant research took off then and is still thriving today in infant research laboratories in many universities around the world. Multiple research studies have now shown that babies are moral, discerning, smart, and capable of learning. Elizabeth Spelke′s infant research laboratory at Harvard University has produced multiple research studies on the capabilities of infants starting in the 1980s. Additional infant research laboratories exist at many universities.

World War II produced a living experiment that would help turn the scientific gaze on the experience of the unborn. In 1944, the infamous Dutch Winter of Hunger happened when the Germans occupied the Netherlands. About 4.5 million people were affected due to strategic food and fuel blockades, and the population was kept on the brink of starvation for several months over a nine month period. A now-famous study of women who were pregnant during that time, The Dutch Famine Birth Cohort Study (Lumey et al, 1993), revealed that the children of pregnant women exposed to famine were more susceptible to diabetes, obesity, cardiovascular disease, and other health problems.

Three significant researchers read these studies and more patterns of famine and nutritional issues in populations in different countries, and then analyzed the impact of the maternal experiences and fetal outcomes. Medical doctors and researchers David Barker (Cooper, 2013), Peter Nathanielz (1992; 1999), and Ludwig Janus (1997) analyzed clinical records and determined that environmental influences had huge impacts on developing babies *in utero* that had lifelong implications. Barker studied cohorts in the south of England in 1984. He noticed that neonatal mortality in the early 1900s was high in the same regions where deaths from heart disease were high. Along with several research

assistants and an Oxford historian, Barker gathered as much data as he could in different regions and discovered that areas that experienced famine and abundance at different times affected patterns of disease. He also found that prematurity and low birth weight had similar health consequences. He began to link conditions at the beginning of life with the health of the adults, especially in the areas of heart disease, diabetes, obesity and related issues. Called Fetal Programming, his theory became known as The Barker Theory and has been proclaimed the New Science (Murphy-Paul, 2010). Separately, but at about the same time, Peter Nathanielz (1992) researched environmental impacts on the developing baby through the mother's experience, including the Dutch Winter of Hunger. His findings were published in the first book for the public on the subject called *Life in the Womb: The Origins of Health and Disease* (Nathanielsz, 1999). A fantastic documentary, The Ghosts in Your Genes, by NOVA (2006) details these findings in a very accessible format.

Michel Odent (1984) contributed to the field not only through his many publications, including books and numerous journal articles, but also he has developed the world's best primal research database (http://primalhealthresearch.com/introduction.php), an invaluable resource for any student of pre and perinatal psychology.

The 1970s and 80's saw the rise of two organizations that focused on the baby's experience: the Association for Prenatal and Perinatal Psychology and Health (APPPAH) in the United States (first organized in Canada in 1983 as the Prenatal and Perinatal Psychology Association of North America) and the International Society for Prenatal and Perinatal Psychology and Medicine (ISPPM), founded in 1971 in Europe, to bring more focused attention on the importance of the early period (preconception, pregnancy, birth, and the first year of life). Two of the founders of APPPAH, Thomas Verny, M.D, (Verny & Kelly, 1982) and David Chamberlain (1989), wrote books that introduced pre and perinatal psychology to wide audiences around the world. Each organization produced journals and hosted international scientific gatherings.

More research and programs began to develop, including prenatal bonding, then called prenatal stimulation. Researchers (Van de Carr, 1986; Manrique, 1989) discovered that communication with and attention to prenates resulted in health and cognitive changes in children and adults. These more formal channels allowed information flow, but it was not until more hard scientific studies such as those produced in the fields of epigenetics and neuroscience, and their acceptance by formal medical and scientific institutions, that prenatal

and perinatal experiences gained credence. This research and attention to the importance of bonding deepened with the work of Klaus, Kennell, and Klaus in 1995, with the publication of their book, *Bonding*.

In 2000, Marti Glenn PhD and Ken Bruer established the Santa Barbara Graduate Institute in California in a formal bid for institutionalizing pre- and perinatal psychology at the graduate learning level. This program ran for just over decade before it was purchased by The Chicago School of Professional Psychology (TCSPP) in 2010. Although never accredited, it was the beginning of inserting pre- and perinatal psychology into formal advanced education and gave PPN professionals a chance to offer graduate level courses to students.

Legitimacy

If research and experiences in all the previous listed threads could be seen as streams, these streams came together to form a river of data and information during the 1990s. Notably, the decade of 1990s saw the rise of neuroscience and its approving stamp on what had been previously seen as only marginal. Within the field of attachment research, clinical psychologist Allan Schore (1994) and psychiatrist Dan Siegel (1999/2012) developed approaches and published books organizing research studies on attachment and its impact on health later in life.

Schore (1994) produced several large volumes on affect and nervous system regulation. His interdisciplinary approach integrates psychological and biological models of emotional and social development across the lifespan. He reviewed many clinical research studies on the early development and emotional processing, exposing the root cause of mood disorders and more to be linked to attachment and early relational bonds between babies and their caregivers. His work in particular supported the development of a new field of study called affective neuroscience.

Siegel developed theories of mind and memory in his seminal work, *The Developing Mind: How Relationships and the Brain Interact to Shape Who We Are*, now in its second edition (1999/2012). He coined the phrase "interpersonal neurobiology," or how we develop in relationship, and how these relationships affect human biological development. This idea is at the core of prenatal and perinatal psychology.

The field of epigenetics, or how the environment affects genes, cells, and consequently the developing baby *in utero* and beyond was finally accepted as legitimate after decades of practice and research (Holiday, 2006; Perera & Herbstman, 2011). Researchers also saw that the nervous system was malleable and could change. Popular books (Lipton,

2005; Church, 2009) began to appear in large numbers, extolling the virtues of awareness of patterns of experience on many levels. Science is supporting what many people (including professionals in the pre and perinatal psychology field) have intuitively known: that babies' experiences *in utero*, during birth, and the first year of life have huge impacts on human development.

The precursor to this acceptance was the Decade of the Brain and a research project known at the Human Genome Project. From 1990 to the end of 1999, the Library of Congress and the National Institute of Mental Health of the National Institutes of Health sponsored a unique interagency initiative to advance the goals set forth in a declaration by President George Bush designating the 1990s as the Decade of the Brain (Proclamation 6158): "to enhance public awareness of the benefits to be derived from brain research" through "appropriate programs, ceremonies, and activities" (LOC, 2013). This effort led to increase in activities and publications regarding cutting-edge research on the brain and the encouragement of public dialogue on the ethical, philosophical, and humanistic implications of these emerging discoveries. This decade saw an increase in projects regarding magnetic imaging technology, neuroscience, neuroplasticity, epigenetics, new drugs, cell death, brain development, and genetics (Carey, 2006).

The Human Genome Project had a large impact on the nature-nurture debate and paved the way for an explosion in epigenetic research. This project unfolded concurrently with the Decade of the Brain efforts with support from the Department of Energy and the Department of Health. The three billion dollar project began in 1987, was formally funded in 1990 and declared complete in 2003. Fifty years ago, researchers knew very little about the impact of genetics on health and disease. Researchers initially thought that humans had over 100,000 genes, and that through mapping them (called the genome), scientists could discover new ways of treating and preventing disease. However, they discovered that humans only had just over 20,000 genes. The implications of this finding led scientists and researchers to accept how the environment affects gene expression, which is the study of epigenetics.

Since the mother is the first environment for human development, research related to epigenetics, neuroscience, attachment, and affect regulation have all helped legitimize the study of prenatal and perinatal psychology and health. Many scientific studies now show that the mother's health and her life experience, including stress and psychological/emotional health, all have important neurochemical impacts on the developing baby.

Integration

With the advent of affective neuroscience and epigenetics, and the acceptance of attachment as a biological need that is hardwired into the human nervous system, the study of prenatal and perinatal psychology and health began to mature. There are several influential practitioners and teachers, therapeutic approaches, and training programs that play a significant role in the integration of these many aspects into what students of PPN experience today. These include pre and perinatal approaches such as those employed by Lake (1981), Emerson (1996), and Findeisen (1993), understanding of human development and the nervous system, refinement of ways to resolve trauma, and encouragement of overall health in the body on an energetic and nervous system level. Overall, therapies are beginning to integrate trauma resolution, nervous system health, and mindfulness. The list of these therapies includes many different kinds of bodywork (massage, craniosacral therapy, polarity therapy), psychotherapy, trauma resolution work like Somatic Experiencing© and EMDR, yoga, and more.

Therapeutically, several fields have begun to converge, specifically mindfulness (meditation and awareness), trauma resolution, psychotherapy, and somatic therapies. Mindfulness studies have integrated brain imaging techniques to show how the brain changes with daily practice and helps with emotional regulation, specifically the frontal cortex, home of executive functioning or regulation of emotions (and more). The field of trauma resolution has been helped by the study of the nervous system, especially the polyvagal theory development by Stephen Porges (2011) that examines how humans respond to threat. These studies have informed approaches, such as Somatic Experiencing©, that seek to relieve stress and trauma in humans that are connected to thwarted attempts to create protection and safety. Psychotherapy has integrated attachment and the study of interpersonal neurobiology. Bodyworkers are taught trauma resolution skills, and a whole range of somatic psychotherapeutic skills are being introduced to the professionals that work with the body and the mind.

Other important fields that are influenced by and that influence pre and perinatal psychology are the disciplines involved in childbirth itself: midwifery, obstetrics, childbirth education, nursing, neonatal medicine, pediatrics. This important input could be seen as the preventative arm of pre and perinatal psychology, focusing on improving the experience of gestation and birth for generations to come. Important contributors here in include Suzanne Arms (1994), Robbie Davis-Floyd (2009), Barbara

Harper, the founder of Waterbirth International, and Sarah Buckley (2009), to name only a few.

It is illuminating and inspiring to see the historical threads weaving into a final tapestry of integrated approaches. We are now in an important time in our growth as a discipline. Many different kinds of therapies are including the historical, formal, and legitimizing parts into their practices. Within the pre and perinatal psychology field, it is important to note current practitioners who are contributing through trainings and writings, notably Ray Castellino (White, 2013), Wendy Anne McCarty (2012), Myrna Martin (White & Martin, 2012), Michael Trout (2013), Franklyn Sills (2004), and Cherionna Menzam-Sills (2013).

To complete this ongoing documentation of prenatal and perinatal psychology, we end with a list of therapies that are integrating social neuroscience into their practices. Many of them include prenatal and perinatal development. This list is represents just some of the therapies that are good for nervous system regulation and healing for early trauma and human development (Brady, 2013). The enthusiastic student and practitioner now have many avenues to explore these integrated approaches.

Therapies

Arrowsmith School – Barbara Arrowsmith-Young
Advanced Integrative Therapy (Seemorg) – Asha Clinton
Accelerated Resolution Therapy (ART) – Kevin Kip
Alchemical Alignment – Brigit Viksnins
Biodynamic Craniosacral Therapy -- Franklyn Sills, Cherionna Menzam-Sills
Coherence Therapy – Bruce Ecker
Cranial Sacral Therapy – John Upledger
DARe – Diane Poole Heller, Patti Elledge
Emotional Freedom Techniques – Gary Craig
Energy Psychology – Wendy Anne McCarty
Hakomi – Ron Kurtz
Hanna Somatics – Thomas Hanna
Holotropic Breathwork – Stan Grof
Mindfulness Based Stress Reduction (MBSR) – Jon Kabat-Zinn
Neurofeedback – Lee Gerdes
Neurosequential Model of Therapeutics – Bruce Perry
Polarity Therapy – John and Anna Chitty
Pre and Perinatal Professional Trainings – Ray Castellino, Myrna Martin

Reprocessing Therapy (EMDR) – Francine Shapiro
Somatic Experiencing – Peter Levine
Sensorimotor Psychotherapy – Pat Ogden
STAR Foundation – Barbara Findeisen, Marti Glenn
Thought Field Therapy – Roger Callahan
The Possibility Project (City at Peace) – Paul Griffin

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