

The Potential Effects of Contemplative Practices on the Cultivation of Empathic Attunement in Mothers

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Abstract: Recent research across various disciplines, including attachment theory, neuroscience, developmental psychology, and pre and perinatal psychology, suggests the importance of redefining parenting effectiveness to include empathic attunement. In light of this research, the importance of prenatal education and training for mothers in body-centered contemplative practices, due to the resulting potential for the development of empathic attunement and the corresponding impact on the developing mind/brain of their children, is discussed.

Keywords: Attachment Theory, Developmental Psychology, Contemplative Practice, Empathic Attunement

From the very beginning of life mothers play a pivotal role in supporting children in our society (Gerhardt 2004, Maret, 2009, McCarty, 2009). This article is an exploration of the mother-infant relationship in terms of its body-centered, relational, and regulatory capacities, which may prove useful to the developing minds of children. Right brain communication is unconscious, non-verbal, and involves less cortical and more limbic areas of the brain and, therefore, body systems; whereas, left-brain communication is language based in both the sender and the receiver and does not reach the implicit, non-verbal systems of the right brain. Research has shown that it is the unconscious right-brain to right-brain communication occurring between a psychotherapist and his/her client that causes lasting change in a client's internal regulatory systems (Panksepp, 1998; Schore 2003a, 2003b; Andrade, 2005; Knoblauch, 2005). With this in mind, this article suggests the importance of redefining parenting effectiveness to include this type

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of embodied empathic attunement. This is to say, right-brain communication that is body based. This article is an exploration of what empathic attunement means within this neurobiological and psychological framework, and how mothers may increase their own internal means of attunement through prenatal body-centered contemplative practices.

In order to consider the importance of this I will review the research literature from the allied fields of education, neuroscience, developmental psychology, and pre- and perinatal psychology. From this foundation four key arguments will be presented (a) the relationship between mothers and infants is important to the developing minds of children; (b) the mother's ability to attune empathically with her infant is an important aspect of this relationship; (c) the mother's ability to attune empathically may be cultivated through the use of contemplative practices; (d) empathic attunement may be of benefit by helping children achieve greater psychobiological regulation.

This inquiry provides insight into how mothers' development occurs through body-centered contemplative practices, and how this development influences their parenting, and ultimately their relationships with their newborns. It suggests the importance of incorporating body-centered contemplative training in prenatal education.

Literature Review

Definition of Terms

General definitions of pre- and perinatal psychology, empathic attunement, body-centered contemplative practices, and the mind are presented here to create a framework for understanding the central components of the importance of mothers' cultivating a body-centered contemplative practice in order to better support the developing minds of their children.

Pre and perinatal psychology "views impactful events, which occur from conception through the prenatal and perinatal (birth) developmental time periods as having profound and lasting psychological effects" (Lyman, 2005, p. 59).

Empathy is one's ability to share others' feelings, while distinguishing whether the source of those feelings lies within oneself or was instigated by the other (de Vignemont & Singer, 2006; Decety & Jackson, 2004; Decety & Lamm, 2006). To attune is, "to bring into

harmony, to make aware or responsive” (Merriam-Webster’s Collegiate Dictionary 11th Edition, 2009). For the purpose of this paper, empathic attunement is defined as the ability of the mother to experience and reflect back a felt understanding of the infant’s internal states, to communicate that awareness in such a way that the infant feels recognized and understood, and for the mother to respond accordingly.

Contemplative practices can broadly be understood as methods or tools that develop concentration, deepen understanding and insight, and cultivate awareness and compassion (Hart, 2004; Wallace & Shapiro, 2006; Lantierri, 2008). More specifically, body-centered contemplative practices are defined as regular, repeated, habituated activities in one’s life that intentionally incorporate and utilize elements of one’s body. These activities are practiced for the specific purpose of cultivating greater self-awareness, self-understanding, and compassion.

A definition of the mind which has been supported by scientists from various disciplines is that, “The human mind is a relational and embodied process that regulates the flow of energy and information” (Siegel, 2010, p.52).

Importance of the Relationship between Mothers and Infants

The relationship between the mother and the infant is essential for the physical and psychological development of the infant (Brazelton, 2006). This relationship begins at the very early prenatal stages of life. Maret (2009) cites Frank Lake’s work, explaining that it is through the umbilical vein that the mother’s emotional life impacts the developing fetus. The umbilical vein conveys nutritional resources but also carries a distressed mother’s negative feelings into the fetus. Maret (2009) cites Lake’s work and explains that “If the mother felt emotionally unsupported, then ‘this feeling of deficiency, lack of recognition and the failure of looked-for support, would be just as specifically felt by the fetus’” (p.156).

Dysregulation in the mother’s nervous system can lead to complications in the infant’s well being. For example, “Sontag found that pregnant women who were anxious, angry and/or afraid tended to have babies with higher heart rates, greater digestive problems, lower birth weight, and more hyperactivity (Maret, 2009, p.156). Pregnant women who are emotionally disturbed tend to have infants who are irritable, poor sleepers, more prone to gastrointestinal difficulties, have higher activity rates, cry more, are perceived by parents to have difficult temperaments, and score lower on mental and motor skill

tests. A study conducted by Batchelor, Dean, Gray, & Wenck found "... the item with the highest correlation as a 'predictive' factor of postnatal emotional and behavioral disorders was cigarette smoking, followed by maternal stress throughout pregnancy" (cited in Maret, 2009, p. 156).

Another important factor to take into consideration is the maternal attitude toward her baby. Thomas Verny (1981) reported on a study by Monika Lukesch that examined 2000 pregnant women and found that the single greatest factor in neonatal outcome was the mother's attitude toward her developing child (p. 47). Verny's hypothesis was that the mother's acceptance or lack of acceptance is somehow perceived by the fetus (p. 49).

After birth, the mother's own emotional and psychological well being influences the development of this relationship (Field, 2007; Gerhardt, 2004). Growth and development of the infant's brain is an ongoing process that continues after birth and is directly influenced by the interaction with the primary caregiver (Schore, 2001; Siegel, 2010). The quality of this interaction relates to how the brain matures and the corresponding cognitive abilities. Interactions of higher quality increase both the physical maturation and the cognition of the infant (Bernier, Carlson, & Whipple, 2010).

Empathic Attunement in the Mother-Infant Relationship

A supportive relationship entails the mother's ability to identify, understand, and *feel* with her infant. This allows the mother to respond in ways that are appropriate and supportive. The mother's ability to regulate her own nervous system and attune empathically to her infant is a key aspect of this relationship (Lantieri, 2008; Levine & Kline, 2007). One of the ways that brain development of infants can be negatively impacted is by exposure to their mothers' chronic stress (Rifkin-Graboi, Borelli, & Bosquet Enlow, 2009). In other words, how a mother "shows up" in her body, moment to moment, has the greatest impact on her infant's development.

The human body is an open-loop system meaning that human beings are not completely in charge of all of their own functions, but are rather regulated by interactions with other people (Lewis, Amini, & Lannon, 2000). This is especially true in the case of children. They are more sensitive to stress and anxiety than adults and need support and connection with others in order to develop the capacity for internal regulation (Levine & Kline, 2007; Siegel, 1999; Lantieri, 2008).

If we return to the definition of the mind as "a relational and

embodied process that regulates the flow of energy and information” (Siegel, 2010, p.52) we can liken the influence of one mind on another as similar to other ways we receive information, i.e. via facsimile or e-mail. Through the transfer of energy and information, one mind can directly influence the activity and development of another (Siegel, 1999). This transfer occurs through verbal and non-verbal communication creating representational processes within the mind of the receiver in both cases. Through, primarily right-brain unconscious, nonverbal signals (body language, facial expression, tone of voice, gestures, and timing of response) the mother’s nervous system communicates directly with that of the infant’s (Siegel, 1999; Levine & Kline, 2007). Therefore, mothers must be attuned to right-brain, unconscious, non-verbal communication coming from their infant. This state does not rely on the language centers of the left brain, but rather requires that the mothers are in a state of right-brain receptivity.

Empathic Attunement and Body-Centered Contemplative Practices

It is important to examine how mothers can learn to attune to their own nervous systems and right-brain systems in order to create a positive environment for the developing fetus and to be more receptive to their infant’s non-verbal communication and attune empathically to them (Siegel, 1999; Levine & Kline, 2007). Chronic stress adversely affects one’s ability to regulate one’s own nervous systems and be in a state of right-brain receptivity (Siegel, 1999). Therefore, it is important that a mother’s stress be addressed in order to maximize the developmental experience of the fetus and infant.

Research has shown that the cultivation of body-centered contemplative practices ultimately leads to changes in the brain and the extended nervous system. These practices have been used to decrease the negative effects of stress on the nervous system, thus increasing one’s ability to manage stress and respond adaptively to one’s environment (Shapiro & Walsh, 1984; Swanson & Oats, 1989). This allows for greater self- and body awareness, which leads to increased ability for empathy (Siegel, 2007) and nervous system regulation (Levine & Kline, 2007).

Studies have shown more specifically that introducing contemplative practices into the lives of mothers during the prenatal time of development is a proactive, effective strategy that can support mothers in regulating perceived stress and increase their empathic attunement to their infant. The following three studies are examples of such research.

Krongold (2011) looked at 15 first-time mothers who participated in an 8-week mindfulness-based intervention for prenatal care during pregnancy. Four months after the birth of their children, the mothers were interviewed about the mother-infant relationship and mindfulness. Participants reported that mindfulness awareness impacted their relationship capacities, behaviors, and attitudes. The researcher categorized this into four themes, “(a) affect regulation and cognitive flexibility of the mothers; (b) increased availability of attention for their babies; (c) emotional regulation of the baby and dyadic regulation of emotion; and (d) initiation of mother-baby contact maintenance of dyadic connection and the ability to reconnect after rupture” (p. vi–vii). The researcher concluded that these abilities are significant because they are the foundation for the development of secure attachment in infants.

Duncan and Bardacke (2010) looked at 27 pregnant women who participated in a Mindfulness-Based Childbirth and Parenting Program (MBCP) during their third trimester of pregnancy. MBCP is a 10-session program “designed to promote family health and well-being through the practice of mindfulness during pregnancy, childbirth, and early parenting” (p.190). The study was a mixed method. The researchers stated that, “Quantitative results from the current study include statistically significant increases in mindfulness and positive affect, and decreases in pregnancy anxiety, depression, and negative affect from pre- to post-test ($p < .05$).... Qualitative reports from participants expand upon the quantitative findings, with the majority of the participants reporting perceived benefits of using mindfulness practices during the perinatal period” (p.190).

Vieten and Astin (2010) looked at the impact of an 8-week mindfulness-based intervention called Mindful Motherhood on perceived stress, positive and negative affect, depressed and anxious mood, and affect regulation. The researchers compared 31 women who received the intervention during the last half of their pregnancy to a wait-list control group. The research concluded that, “Mothers who received the intervention showed significantly reduced anxiety and negative affect during the third trimester in comparison to those who did not receive the intervention. The brief and nonpharmaceutical nature of this intervention makes it a promising candidate for use during pregnancy” (p.67).

Discussion

This review of literature has investigated the importance of the prenatal experience as well as the mother-infant relationship for the developing minds/brains of children. The current findings from the fields of neuroscience, developmental psychology, trauma resolution, and pre and perinatal psychology complement one another to explain the importance of empathic attunement in this relationship because of its direct impact on the developing mind/brain of the prenat and infant. The research on body-centered contemplative practices suggests these methods and tools may support mothers in cultivating the qualities necessary to decrease their perceived stress levels, develop concentration, cultivate awareness and compassion, and deepen insight and understanding.

Given the importance of this, additional research is warranted to determine whether a prenatal body-centered contemplative practice decreases mother's prenatal stress, dysregulation, and negative affect toward the developing baby; increases empathic attunement with infants; and if these practices lead to improved outcomes. There are a variety of questions researchers might ask. For example, do these practices decrease prenatal stress and increase a mother's acceptance of her developing baby? Do these practices directly impact the mother's ability to observe the subtle shifts in an infant's presentation, to have a felt sense of what the infant may be unaware of experiencing, and to understand and communicate that awareness to the child in a way that is helpful? Does this result in improved outcomes for the child?

If through further research it is found that prenatal body-centered contemplative practices decreases a mother's perceived stress and more specifically increases her ability to attune empathetically with her child, the implications would be quite significant. Ideally, supporting mothers in this way would create a positive environment for the developing fetus and support mother-infant relationships that foster the developing minds/brains of children specifically in terms of self-regulation, stress reduction, and a positive affect toward themselves and the world.

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