Infant Massage: Is the Medium the Message?

Angela Underdown
Deputy Director, Warwick Infant and Family Wellbeing Unit

Dana Shai
Research Unit Director, Ziama Arkin Parent and Infant Relations (PAIR) Institute, Herzliya, Israel

Infant massage is popular in the United Kingdom and is increasingly considered as an intervention to support early parent-infant relationships. In order to use this method most effectively, it is helpful to identify its roots and how it might continue to develop as an intervention. This paper will address these topics, beginning with an introduction outlining the theoretical and research context for supporting early relationships. This is followed by an overview of the diverse international origins of infant massage and how pioneers translated this practice into western cultures. Reference is made to the evidence base for the use of infant massage and hypotheses are offered about the mechanisms within infant massage programmes that may support parent-infant relationships. The article concludes by speculating how current research, specifically into parental embodied mentalizing, might further benefit the practice of infant massage.
Keywords: infant massage, infant mental health, mother-infant interactions, mentalizing, Parental Embodied Mentalizing

Human infants are primed to develop within relationships and even before birth, they are able to hear and respond to sound and touch (Piontelli, 1992; 2002; Hepper & Shahidullah, 1994). Right from birth, infants are socially interactive and the way in which their emotional, social, and psychological development unfolds is, to a large extent, dependent upon the nature of the early relationships in which they participate (Schore 1994; 2003). Infants innately desire to connect with others and although many develop within the context of loving attuned relationships, others experience relationships with a parent who may be insensitive. Sensitive interactions are characterized by observing infant initiatives (or cues) and contingently responding (De Wolff & Van Ijzendoorn, 1997) and impact on the way the brain connects and emotion and behaviour are regulated (Panksepp 1998; Schore, 1994; Fonagy et al., 2002). However, increasing understanding has shown this to offer only a partial explanation. The importance of parents being able to mentalize - to observe and interpret behaviour in terms of the infant's underlying feeling states - has more recently been identified as a crucial mechanism (Slade, 2005). The increasing recognition of the importance of parental mentalizing as a foundation for optimal development has made the search for interventions that can enable relational changes a public health priority.

HISTORICAL AND CULTURAL BACKGROUND OF INFANT MASSAGE

Touching is an intrinsic part of caring for an infant and, in many areas of the world, especially in Africa, Asia, indigenous South Pacific cultures and the Soviet Union, infant massage is a traditional practice (Field et al., 1996). The perceived aims of massage are wide and include promoting growth and development, easing congestion and pain, promoting sleep and improving circulation and digestion (Field, 2000). A survey of 332 infants in Bangladesh, who were massaged by their primary caretakers, found that 96% of caretakers engaged in massage of the infant's whole body between one and three times daily (Darmstadt & Saha, 2002). Infants were massaged vigorously with oil and the perceived benefits ranged from prevention of infections to the prevention of hypothermia. Indian studies have focused more on investigating the effects of different massage oils (Argawal, 2000) rather than whether massage is beneficial. In India, the traditional practice of infant massage is described, in this case using soap and water, in the following way:

Infant massage is a daily routine that begins in the first days of life. The infant is laid on his or her stomach on the mother's outstretched legs, and each body part is individually stretched. Warm water and soap are applied to the legs, then to the arms, back, abdomen, neck and face. The massage looks to an observer like scrubbing old clothes on a

washboard because it is administered so vigorously. After infants are massaged and swaddled, typically they sleep for long periods (Field, 2000: 494).

Similarly, in Nepal, considerable force is used to stretch infants' arms and legs during massage because this is considered important for strengthening bones, cleaning skin and heat regulation (Mullany et al., 2005).

The aims of infant massage include promoting sleep, easing pain and improving digestion.

Paediatric massage also has a long history within the framework of Chinese traditional medicine with earliest surviving records dating back to the Sui/Tang dynasty (AD 581-907) (Cline, 1999). Massage was recorded in a series of books during the Song dynasty (960-1279) and a paediatric massage department was established at the Institute of the Imperial Physicians during the Yuan dynasty (1279-1368). Cline's account of the development of Chinese traditional medicine highlights times when massage was developing and others when it was repressed. Since the 1980s, paediatric massage has been revived, playing an important part in traditional medicine. It is designed to optimise the balance of energies within the body and to promote internal functioning to prevent ill-health (Cline, 1999). Individual protocols or treatments are targeted to balance the energy (Qi) flow between the opposing polarities (yin and yang) in order to treat particular acute and chronic ailments (Fan, 1994; Cline, 1999).

INTRODUCTION OF INFANT MASSAGE INTO WESTERN CULTURES

Various pioneers were responsible for introducing infant massage into western cultures. After studying in India, an Australian nurse, Amelia Auckett, introduced infant massage programmes in 1977 through the 'Mother and Babies Health Association' in the Adelaide Hospital and further developed the service through Infant Welfare Centres (Auckett, 1981). After working in an Indian orphanage in the 1970s, another pioneer, Vimala McClure founded the International Association of Infant Massage (IAIM) in the United States (US). While western infant massage was influenced by Indian traditions, a number of techniques from Swedish massage were also incorporated. For example, western infant massage includes soothing, long gliding effleurage strokes to warm and relax the muscles, deeper kneading strokes to release muscle tension and circular friction movements to help relaxation (Epple & Carpenter, 2007). One of the UK pioneers of infant massage was Suzanne Adamson, a health visitor, who became interested in sensitive touch in infancy because she believed it provided infants with a lasting sense of self-worth (Adamson, 1996). Gaining permission from her employing health authority, she set up an infant massage programme for mothers at a London Health Clinic in 1990 and Peter Walker (PW), a yoga teacher and physical therapist, taught the initial classes. The classes were composed of two parts; in the first, mothers learnt infant massage and in the second, they participated in yoga and relaxation. Adamson subsequently travelled to the US to learn baby-led infant massage and brought this back to UK.

IDENTIFYING THE MECHANISMS IN INFANT MASSAGE THAT SUPPORT EARLY RELATIONSHIPS

Underdown and Barlow (2011) scrutinised observational data from infant massage programmes and relevant theory to identify 14 mechanisms considered important in influencing the uptake and effectiveness of infant massage to support parental bonding and infant attachment. The extent to which these mechanisms were present was measured across eight infant massage programmes and findings showed that programmes were highly variable. IAIM facilitators based their sessions on baby-led cues while Peter Walker trained facilitators focused more on infant flexibility and physical development.

Mechanisms influencing effectiveness of infant massage programmes

1. Personal invitations
2. 'Inviter' facilitates group
3. Consistent facilitator
4. Setting meets physical needs
5. Containing atmosphere affirms mothers and infants
6. Learning massage strokes
7. Optimum group size (four to eight dyads)
8. Provision for social engagement
9. Facilitator has necessary technical skills
10. Facilitator has necessary personal qualities
11. Facilitator models sensitive interactions with doll
12. Teaching about infant states
13. Teaching about infant cues
14. Use of singing within group

(Underdown & Barlow, 2011:22)

There were indications that moderate-risk mother-infant pairs benefitted from groups with a high number of mechanisms that helped them interpret infant cues and signals (see Underdown et al., 2013 for description of risk). For example, one mother who was disengaged prior to the group was much more aware of her infant's cues and likes and dislikes following the programme.

. . I suppose it's taught me to watch his face and watch what he wants, you know, and try and learn from what he's trying to tell me, you know, rather than just kind of thinking, 'Right what will we do with you now?' (Underdown & Barlow, 2011)

This mother seemed able to read her infant's cues more easily and focus on what his underlying

needs might be. However, there was also evidence of an adverse effect for one high-risk mother-infant pair where the mother's interaction moved from unresponsive and disengaged to intrusive despite receiving a high quality (including most mechanisms) infant massage programme (Underdown et al.,2013). The mother was observed trying hard to follow the facilitator's lead, but although she began to touch her baby more, her movements with the baby were not intuitive and she was frequently jerky and non-synchronous. Post-intervention, the mother was recorded on video holding her baby on her knee, mechanically moving her infant's limbs while trying to play with him. The mother had moved from being unresponsive with her infant to being intrusive. Although the mother was trying to engage with her baby, her interactions remained concerning.

The case of this particular mother-infant dyad raises the question of whether an additional component of infant massage programmes to support parents not only to respond to infant cues, but also to interpret behaviour and body movements in terms of the baby's underlying feelings, sensations and experiences, might be beneficial for high-risk dyads. The next part of this article will explore whether adopting a parental embodied mentalizing conceptualisation could further the effectiveness of infant massage programmes.

SUPPORTING MENTALIZING IN INFANT MASSAGE PROGRAMMES

Parental embodied mentalizing (PEM) (Shai & Belsky 2011a, b; Shai & Fonagy, 2014) refers to the parent conveying through his or her movements that he or she understands what the baby wants and is feeling. The framework of PEM is rooted in the appreciation that human movement conveys emotion, needs, desires, and expectations (Shai, 2010) and that the parent-infant relationship relies heavily on this platform to communicate and to scaffold their emotional bond (Shai & Belsky, 2011a; Shai & Fonagy, 2014). When assessing PEM, the parent-infant interaction is broken into a series of nonverbal dialogues, each of which is composed of a to-and-fro set of movements. These movements, of both parties, can be characterized in terms of their quality – for example, fast, slow, big, small, close to body, away from body, accelerating, decelerating, towards, away from. The fundamental premise is that these qualities of movement convey information about the baby's mental and emotional states. What information? That's the point – we don't know. All the mother or father can do is try and figure it out and respond to what they think or believe the infant is conveying through his bodily movement. This is what is meant by 'following the infant's cues' that infant massage facilitators encourage.

But what happens when the mother's assumption about the infant's mental state is inaccurate, or even worse, completely distorted? A central component of mentalizing in general, and certainly that of parental embodied mentalizing is that of 'not knowing', of 'wondering' (Fonagy et al., 2002; Slade, 2002; Shai & Belsky, 2011a). A person with high mentalizing capacities is able to appreciate that we can never fully or confidently know what another thinks or feels. As a consequence, such a person attempts to modify his or her evaluations of the other when confronted with information contradicting their initial appraisal. And this ability- to acknowledge that he or she didn't get it right from the infant's perspective, and that it was his or her assumption (rather than the infant's reality), is, in fact, the parent's embodied mentalizing capacity.

One of the implications of using a framework of PEM while leading an infant massage group is to remind parents that following the infant's cues means constantly and continuously assessing how the infant is reacting. In this process, parents can be particularly supported to explore how their own views, expectations, fears and desires colour the interpretation of their infant's movements. For example, a mother who has an experience of being deprived of touch in her infancy may desire to offer her baby continuous touch, since in her mind, there is a link between reassuring, present, and supportive parenting and abundant touching. This desire of the well-intended mother may clash with her infant's high sensory sensitivity and thereby lead the infant to exhibit squirming, arching movements that essentially move him or her away from the mother. Given her personal history, this mother may very well pick up on her infant's bodily cues; nonetheless, she might interpret them through her own eyes and skin, as signals of the infant becoming restless because she removed her hand from him momentarily. By offering supporting explorative questions such as, 'What does touch mean to you?' 'How did your mother touch/hold/ stroke you?' 'Do you remember a pleasant moment with you and your mother that involves touch?' the facilitator might be able to help the mother - who is trying so hard to be a good and loving mother - to understand that it is her own beliefs about touch, and her experiences of it as a child, that lead her to behave with her child the way she does, while, in fact, her baby's needs are different from her own.

Following infant cues means constantly assessing

how the infant is reacting.

Going beyond words, infant massage group leaders may offer short, yet effective, experiential activities to further encourage parents' mentalizing and help them make links between their own embodied experiences and those of their child. For instance, group leaders can open a session by asking parents to work in couples and explore different types of touch on their arm or back: strong, soft, harsh, fast, slow, rounded, straight, rhythmic and so on. With each change in the quality of the movement, both the touch receiver and provider should be invited to reflect silently on what and how they feel when touching or being touched in that way. After this short experience, each couple can share what they felt, and explore whether what they felt in their bodies resonates with what the other felt, intended, or wanted. Links can then be drawn between the couple's experience of touch in this activity and the parent's and baby's when the baby is massaged.

CONCLUSION

Infant massage has a long history, from diverse cultures, as a traditional part of infant care. Reflecting on these differing contexts is important in focusing thinking about potential benefits to infant and parents. Touch is a powerful medium for communicating emotions between two people (Hertenstein, 2002) and for most parents and infants, sensitive attuned touch comes naturally. However, touch behaviour from one person to another is likely to vary and be affected, for example, by current levels of stress and the parent's own care history (Hertenstein, 2002). When infant massage is offered as an intervention to promote attuned parent-infant connections, working with the conceptualisation and practice of parental embodied mentalizing may aid reflection on what touch means for the parent and how this may influence the parent's observation and interpretation of what the infant is trying communicate. The ultimate goal of infant massage groups is to assist more appropriate responses to infants' cues and foster a positive, intimate, and connected relationship between parents and their babies.

REFERENCES

Adamson S. (1996) Teaching baby massage to new parents. Complementary Therapies in Nursing and Midwifery, 2, 151-159.

Auckett A. (1981) Baby Massage: Parent-Child Bonding Through Touch. New York: Newmarket Press.

Cline K. (1999) Chinese Massage for Infants and Children. Rochester, Vermont: Healing Arts Press.

Darmstadt G., Saha, S.K. (2002) Traditional practice of oil massage of neonates in Bangladesh. Journal of Health, Population and Nutrition, 20 (2):184-8.

De Wolff M.S., Van IJzendoorn M.H. (1997) Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. Child Development, 68(4), 571-591.

Epple A., Carpenter P. (2007) Baby massage and yoga. London: Hodder Headline.

Field T., Schanberg S., Davalos M., Malphurs J. (1996) Massage with oil has more positive effects on normal infants. Journal of Prenatal and Perinatal Psychology and Health, 11 (2):75-80.

Field T. (2000) Infant Massage Therapy. Ch. 32, In: Zeanah C. (Ed) Handbook of Infant Mental Health. Second Edition. New York: The Guilford Press.

Fonagy P., Gergely G., Jurist E., Target, M. (2002) Affect Regulation, Mentalization and the Development of the Self. London: Karnac.

Hepper P., Shahidullah S. (1994) Noise and the fetus. Sudbury: HSE Books.

Hertenstein M. (2002) Touch: its communicative functions in infancy. Human Development, 45:70-94.

Mullany L. Darmstadt G. Khatry S., Tielsch J. (2005) Traditional Massage of Newborns in Nepal: Implications for Trials of Improved Practice. Journal of Tropical Pediatrics. 51(2):82–86.

Panksepp J. (1998) Affective Neuroscience. The Foundations of Human and Animal Emotions. Oxford: Oxford University Press.

Piontelli A. (1992) From fetus to child. London: Tavistock Publications.

Piontelli A. (2002) Twins from fetus to child. Routledge. East Sussex.

Schore A. (1994) Affect Regulation and the Origin of the Self: The Neurobiology of Emotional Development. New Jersey: Erlbaum.

Schore A. (2003) Affect dysregulation and disorders of the self. New York: Norton.

Shai D. (2010) Introducing Parental Embodied Mentalizing: Exploring Moments of Meeting of Mind of Parent and Infant's from a Relational Whole-Body Kinaesthetic Perspective. In, Bender S. (Ed.) Movement analysis of interaction. Berlin: Logos Verlag: 107-124.

Shai D., Belsky J. (2011a) When Words just won't do: Introducing Parental Embodied Mentalizing. Child Development Perspectives, 5(3):173-180.

Shai D., Belsky J. (2011b) Parental Embodied Mentalizing: Let's be Explicit about What We Mean by Implicit. Child Development Perspectives, 5(3):187-188.

Shai D., Fonagy P. (2014) Beyond words: Parental embodied mentalizing and the parent infant dance. In Mikulincer M., Shaver P.R. (Eds.) Nature and formation of social connections: From brain to group. Washington, DC: American Psychological Association: 185-203.

Slade A. (2002) Keeping the Baby in mind: A Critical Factor in Perinatal Mental Health. Zero to Three, June/July:10-16.

Slade A. (2005) Parental reflective functioning: An introduction. Attachment and Human Development, 7(3):269-281.

Underdown A., Barlow J. (2011) Interventions to support early relationships: mechanisms identified within infant massage programmes. Community Practitioner , 84(4):1462-2815.

Underdown A., Norwood R., Barlow J. (2013) A Realist Evaluation of the Processes and Outcomes of Infant Massage Programs. Infant Mental Health Journal, 34 (6):483-495.