

INFANT MASSAGE

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MISSION STATEMENT

“ The purpose of the International Association of Infant Massage is to promote nurturing touch and communication through training, education and research so that parents, care givers and children are loved, valued and respected throughout the World community.”

The International Association of Infant Massage was founded in 1981. The Association was founded by Vimala Schneider McClure. The programme we teach is based on techniques derived from:

- Ancient Indian Massage
- Contemporary Swedish Massage
- Reflexology, and
- Yoga.

Vimala devised the programme drawing on her own experiences as a student working in an orphanage in India, and later as a mother to her first born child.

Infant massage is not a concept that is new on our planet. It is widely believed that most cultures across our globe have at some time practiced Infant Massage, but sadly due to reasons we may never know it has been lost and forgotten.

India is one country where the art of Infant Massage has not been lost, in fact it is a practice deeply rooted in their culture. An Indian mother regularly massages members of her family and passes these techniques on to her daughters.

At the orphanage where Vimala was working the eldest children massaged the little ones every day. It was a type of nurturing being past on amongst the children. In spite of the disadvantages and deprivations these children faced, they grew up into loving, warm and playful young people. They were relaxed and comfortable with themselves and each other. It was these observations and memories that inspired Vimala McClure to design the Infant Massage programme, and develop research interest based on the programme.

Why Massage Our Babies?

Infant massage has physiological and psychological benefits for babies and for their caregivers. This article will now outline in a basic introductory manner these benefits, with reference to research that has been undertaken to validate the positive effects of infant massage.

Tiffany M. Field, PhD, is a researcher at the University of Miami School of Medicine. Ms Field has to her credit many articles and books based on research in the area of ‘Touch Therapy.’ Her work has been to study the effects of massage in a variety of situations, including, pre-term infants, healthy infants and infants who are alcohol, drug or HIV exposed. She has also studied the effects of touch therapy on autistic and asthmatic children; children with delayed development and children with posttraumatic stress disorder. Areas of research on adults have included people suffering from bulimia, rheumatoid arthritis, diabetes, psychiatric problems and mothers with postnatal depression. The list of areas she has researched continues, to include children with ADHD (Attention Deficit Hyperactive Disorder) paediatric oncology patients and children with dermatological conditions. A detailed collection of these studies can be found in her book titled ‘Touch Therapy’ by Tiffany Field, published by Churchill Livingstone, 2000. This book is highly recommended for those wishing to pursue more in depth accounts of the positive effects of touch therapy.

A brief synopsis of one of the studies follows:

A sample of 40 full term 1-3 month old infants were recruited at birth from the day-care nursery base at the touch research institute for the study. The infants had a mean gestational age of 39.4 weeks, a range of 37-41 weeks, had normal birth weights and had normal Apgar scores. The infants were randomly assigned to a massage therapy group or a rocking group. Another necessary part of the criteria was that the mothers of these infants had been diagnosed as suffering from depression. The initial diagnosis of depression was made following the infant’s delivery and another diagnosis was made at the beginning of the study. If the mother was no longer diagnosed as depressed she was not recruited as part of the sample for the study.

During the study the infants were cared for during the day by staff in the nursery at the touch research institute. The babies were bottle fed by the nursery teachers except when the mothers visited. The mothers routinely held, touched and fed their infants, and this was recorded on a daily basis. The groups did not differ based on the teachers daily record of the amount of time the mothers visited, held, touched and fed their babies. The mothers were also unaware of which therapy their infants were receiving (rocking or massage), and were unaware of the intent of the study, as were the teachers.

Methods/Procedures:

Massage Therapy – The infants in this group were provided with a 15 minute massage midway between morning feeds 2 days per week over a 6 week period. A researcher who was trained in the procedure administered the massage therapy.

Rocking Group – The infants in the rocking group were scheduled for rocking sessions at the same time of day as the massage group, (15 minutes on 2 mornings per week for 6 weeks). During this period, the infant was held in a cradled position by the researcher and rocked in a rocking chair.

Many strict guidelines were adhered to with regards to observation, recording etc during the study.

Results:

The massage therapy infants were in a different state (sleep/wake behaviour) during the sessions compared to the rocking group. The massage therapy infants spent more time in active alert and active awake states and less in drowsy and quiet sleep states. Also their crying and salivary cortisol levels decreased. In the rocking group the crying and cortisol levels remained the same. The rocking group spent less time in an active awake state during rocking session, but were awake after the rocking session, suggesting that massage may be more effective than rocking for inducing sleep.

“ Several long-term differences were noted for the massage group infants across the course of the study – as opposed to the rocking group infants, who did not change. The massage therapy infants:

- Gained weight, although no change occurred in formula intake
- Improved on temperament dimensions, including emotionality, sociability and soothability
- Experienced decreases in urinary catecholamine and cortisol levels and increased serotonin levels”^{1.} ‘Touch Therapy’ by Tiffany Field PhD, published by Churchill Livingstone 2000 page 25-30’

As practitioners in massage and touch therapy, we intuitively recognise and understand how profoundly effective it is as a method of treatment, however it is research such as this that validates our work, and will make it easier for us to be accepted and respected alongside our mainstream counterparts in healthcare.

What are the Benefits of Infant Massage?

The benefits to be gained from infant massage are wide and varied. Both the recipient and caregiver of the massage benefit positively from the physical, emotional and social interaction.

The first aspect we will consider is that of emotional and social interaction. What is bonding and how do we define it? The all-important bonding process that develops between a parent and infant it is something that is tangible yet intangible, almost like an invisible umbilical cord. It is a paradox in that it is incredibly strong, yet amazingly subtle. In humans bonding is not a single event that occurs; it is an ongoing process that happens throughout life. It is a process that needs to be nurtured, and it is never too late for bonding to develop between parents and their offspring. There are elements that influence bonding, these would include:

- (a) touch
- (b) voice-hearing
- (c) eye-contact
- (d) smell-scent
- (e) chemistry (e.g. increased prolactin)

The bonding process sets up an invisible phenomenon that allows an indescribable link to exist between the parent and their baby. Within this, pure unconditional love develops, and total acceptance of each other. This bond exists between parents and adoptive babies, parents and babies with special needs and parents with their own healthy babies.

A lot of research has been done on the subject of bonding. A majority of the research suggests that a human baby does not bond to its mother with irreversibility akin to animal imprinting. Babies are flexible and resilient creatures, willing to interact socially with any other person interested enough to take the time to interact with them. Babies are capable of emotional ties to several adults – and in some cases – other children. Research suggests there is a sensitive period for bonding in humans, however, this period is less rigidly defined than in animals and may continue for months, even years after childbirth. The close proximity between parent and infant, via sensory experiences and living interaction is the stimulus that encourages bonding to develop.

Attachment:

Attachments are emotional bonds, which occur between babies and those people who are most deeply involved with them. To become involved the people and infant concerned must spend some quality time together, and interact with one another. Young babies are willing to be sociable with almost anyone who pays enough attention to them. After a few months, infants are willing and able to let a closer bond develop. For attachment to occur, some of the people who attend to the child – hopefully including the parents – will want to become involved with the child.

Over the next few months the infant will grow to trust, and to enjoy the company of these people, to feel safe and secure with them, and to regard them as a safe base from which to explore. For attachment to occur, both the infant and the adult have important roles.

Human babies seem to enjoy company, and display behaviours showing them capable of being sociable. Infants will give a sociable smile within a few days of birth, and will start to imitate their mother’s facial expression after a week or so. They have reasonably good hearing and will turn their heads towards sounds. Babies seem to have an innate preference for looking at things like a human face, and hearing the human voice. The adult’s role is to respond to the distress signal of the baby – which is crying. Crying is important and is usually the last resort for the baby when all other attempts to attract

attention have failed. Research has demonstrated that adults who respond quickly to babies crying and are most attentive to the babies needs had babies who cried the least. The babies were most likely to cry when they were left alone.

It is now known that babies as young as seven or eight months are capable of making more than one attachment. The usual pattern of attachment is as follows:

Up to 3 – 4 month	Babies generally prefer the presence of their mother’s scent.
3 – 5 months	They start to decide whom they feel safe with.
6 –7 months	They express their preferences clearly – stranger fear begins. All this time they are attaching to their caregivers.
6 – 18 months	They start to form multiple attachments if either adults are available and willing.

The success and intensity of the attachment does not depend on the amount of stimulation the baby receives, but the quality of it.

In infant massage, we facilitate a situation where the depth of all the factors involved with the development of bonding and attachment are greatly enhanced. Every aspect influencing these two phenomena are covered in infant massage:

- Touch
- Eye Contact
- Voice
- Smell
- Responding to crying
- Quality time – biochemistry

We guide the caregiver through all of these.

Another area that benefits from infant massage is that of relief and relaxation.

Relief

The subject of colic is probably very close to parents hearts when it comes to the desire to relieve a baby from pain and discomfort. Colic can vary from mild, uncomfortable windy spells to intense pain and stimulation intolerance. In infant massage we have found that by teaching caregivers a daily routine to follow a very high percentage of colicky babies episodes are prevented and treated. “Massage helps tone the digestive tract, helps move wind and faecal matter into the bowel for expulsion and speeds myelination of the nervous system for better brain – body communication. We also teach techniques for the relief of other troublesome times such as teething, congestion and emotional stress.”² Teaching Infant Massage: A Handbook for Instructors by Vimola Schneider McClure, published 1998 page 3

Relaxation

Babies can suffer from stress, tension and anxiety just like children, teenagers and adults. Stress as an emotional and physical state is not necessarily always a negative experience. A balance of stress and relaxation is normal, in fact a certain level of stress, with the pituitary gland going into action producing adrenocorticotrophic hormone is believed to be necessary to stimulate the production of neuronal pathways (Weinberger, 1984). Adrenocorticotrophic hormone (ACTH) is produced when someone is faced with stress, ACTH then stimulates the adrenal cortex, which then releases glucocorticoids (cortisol) in to the bloodstream. It is when stress continues unabated that it becomes dangerous.

Before the birth of a baby, the baby’s body is swamped with a huge surge of ACTH. This happens for two reasons, one is to prepare the baby for the stress of the birth and the second reason is to stimulate the production of neuronal pathways necessary for the massive amount of learning and memory afterwards (Epstein 1982). This high level of ACTH somehow has to receive a trigger in order to reduce it, there are three important signals the baby receives from its mother after the birth, which say to the brain, “It’s OK, the baby is safe, let learning and new experience begin.” These signals are tactile contact, eye contact and heartbeat sounds. Research studies have shown that babies who miss these early signs can endure days, even weeks of high levels of stress, parents have to find a way of coping with and dealing with this situation. These babies can become hypersensitive, inadequately coping with all manner of normal daily routine stimuli.

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Eileen Freeman

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How can we help? Infant massage helps babies practice handling input (stimuli), recognising it and responding to it with relaxation. It helps to enhance more positive feelings about themselves and allows them to release built up tension. The positive messages communicated through safe touch will help a child throughout his/her early life to feel a sense of being in control of his health and well being. If massage is administered on a daily basis, then the stimulation threshold for most babies is increased. So hypersensitive babies will gradually develop higher tolerance levels. A daily massage will reduce tension and seems to regulate the way in which a baby will respond to and process stressful experiences. This response is probably due to a combination of factors, being the releasing quality of massage itself, the relief the baby feels when the parent is able to listen to him/her and understand his/her need to process stress and myelination of the nerves.

Stimulation

The last area of significance we will look at in this article is that of “stimulation”. The skin is the oldest and most sensitive of our organs. We can live without every sense except that of skin sensitivity. “The skin is the largest sensory organ of the body, and the tactile system is the earliest sensory system to become functional in all species thus far studied – human, animal and bird.”³ Touching, The Human Significance of The Skin, by Ashley Montagu, published by Harper & Row 1986, page 4. The sense of touch is the earliest to develop in the human embryo. Perhaps next to the brain the skin is the most important of all our senses.

We will briefly turn to studies on animals to discover the effects of tactile experiences in relation to early development. Between 1958 and 1966 Professor Harry Harlow conducted a series of valuable studies demonstrating the significance of physical contact between the monkey mother and her infant for the subsequent healthy development of the latter. It was expected to discover that comfort contact was a significant component in the infants emotional and physical development and stability, but it was not expected to discover that the nurturing physical contact was more important than receiving food. In these studies infant monkeys were given the choice of a wire mother with food and a soft, terrycloth mother without food. Overwhelmingly the infants chose the soft terrycloth mother, providing soft, gentle physical contact. The results in favour of this result were so great, as to suggest that the primary function of nursing/feeding is to insure frequent and intimate body contact with the mother. Human infants with “Marasmus” or failure to thrive, display the same types of behaviour; even when given all the food they need, a baby deprived of regular close contact and tactile stimulation will continue to deteriorate. Without intervention there would be very serious consequences. To reverse the condition of marasmus requires medical procedures, emotional support, comfort contact and a tremendous amount of care.

Another significant study, “Rats and Serendipity” was conducted by Frederick S. Hammet, anatomist, at the Wistar Institute of Anatomy in Philadelphia between 1921 and 1922. The rats had their thyroid and parathyroid glands removed (endocrine glands involved in regulation of the immune system). Hammet noted that following the operation some of the animals did not, as they ought to have done, die. Upon further inquiry it was found that the rats who had undergone surgery had been drawn from two separate colonies and that the larger number of those that had survived had come from what was called the experimental colony. In this colony the animals were regularly stroked, petted and handled. In contrast, the animals who displayed a higher mortality rate were drawn from what was called the standard stock, in this group the only human contact was a part of routine feeding and cage cleaning by an attendant. In the control group, most died, those who survived were of a very nervous, irritable, aggressive and fearful disposition. Those from the experimental group were relaxed and yielding, not easily frightened, their nervous system remained stable. Within 48 hours of the operation 79% of the irritable rats had died, while only 13% of the gentled rats died

In human, cross-cultural studies on the subject of culture and contact, it has been demonstrated that in societies where infants are closely nurtured, they are less violent and aggressive. (Prescott 1975, 1985). Positive, natural tactile stimulation speeds up the myelination process of the brain/nervous system (Rorke 1969, Reimis 1980). At birth the coating of nerves by the myelin sheath is not complete. The process of the myelination of the nerves is essential to the development of the nervous system and the speed of transmission of impulses from the brain to the rest of the body. Tiffany Field, et al (1990) demonstrated through in depth studies that massage with premature babies stimulates the circulatory, respiratory and gastrointestinal systems and improves neurological development.

Conclusion

Infant massage is a very powerful tool. As briefly demonstrated here, we now have documented research articles, books and journals to support our claims in how vital touch is in all areas of development. For me as an Infant Massage instructor it is an opportunity to work with families from the “grass roots” level. It would be utopian, though none the less wonderful to think that we could prevent problems before they occur, with the hope of fulfilling our Mission Statement, which takes us back to the beginning.....

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