

Quoted Article:

PARENT INFORMATION: Infant Massage

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The Calcutta mother lays her infant on his stomach on the mother's outstretched legs, and the body parts are individually stretched. Warm water and soap are applied to the lower extremities for massage, followed by the arms, back, abdomen, neck and face. The massage looks extremely rigorous (almost rough), so it is not surprising that the infant (following swaddling) then sleeps for prolonged periods. The Indian infant massage is a daily routine that begins in the first days of life. Some have related the precocious motor development of these infants to their daily massage. Infant massage therapists are not surprised, as they maintain that the massage provides both stimulation and relaxation. It stimulates respiration, circulation, digestion and elimination. They claim that infants who are massaged sleep more soundly and that the massage relieves gas and colic and helps the healing process during illness by easing congestion and pain.

Infant massage is a common child care practice in many parts of the world, most especially Africa and Asia. For example, infants are massaged for several months of their life in Nigeria, Uganda, India, Bali, Fiji, New Guinea, New Zealand (among the Maori), Venezuela and the Soviet Union (Auckett, 1981). In most of these countries the infant is given a massage with oil following the daily bath and prior to sleep time.

Infant massage in the Western world

In Eurocentric cultures, infant massage is only recently being discovered and researched. In the United States, for example, massage therapy schools are beginning to teach infant massage. Infant massage therapists have founded a national organization of

approximately 4,000 therapists, and those therapists in turn are setting up institutes to teach parents infant massage. The techniques they use are based primarily on the teachings of two massage therapists who trained in India (Amelia Auckett who published a book on infant massage in 1981 and Vimala Schneider McClure who published a similar book on infant massage in 1989).

Although these infant massage training groups are located now in most parts of the United States, very little research has been conducted on the use of infant massage with healthy infants. Working with healthy infants, infant massage training groups report that massage:

- Facilitates the parent-infant bonding process in the development of warm, positive relationships;
- Reduces stress responses to painful procedures such as inoculations;
- Reduces pain associated with teething and constipation;
- Reduces colic;
- Helps induce sleep; and
- Makes parents "feel good" while they are massaging their infants.

They report that infants who are blind and/or deaf become more aware of their bodies, and that infants born prematurely and infants with cerebral palsy also benefit by more organized motor activity.

Massage therapy with preterm infants

Most of the data on the positive effects of infant massage comes from studies on preterm infants. Most of these investigators reported greater weight gain and better performance on developmental tasks for the preterm infants receiving massage therapy.

Interestingly, those who did not report significant weight gain among massaged infants used a light stroking procedure, which we have since found is aversive to babies, probably because it is experienced as a tickle stimulus.

One of the studies used in this meta-analysis was conducted in our lab starting in 1984. The massage sessions were comprised of 3 five-minute phases. During the first and third phases, tactile stimulation was given. The newborn was placed in a prone position and given moderate pressure stroking of the head and face region, neck and shoulders, back, legs and arms for five one-minute segments. The Swedish-like massage was given because, as already noted, infants

preferred some degree of pressure, probably because the light stroking was experienced as a tickle stimulus.

The results of this study (published in Pediatrics in 1986) suggested that:

- The massaged infants gained 47 percent more weight, even though the groups did not differ in calorie intake;
- The massaged infants were awake and active a greater percentage of the observation time (much to our surprise, since we had expected that the massage would stimulate a soporific state and greater sleep time, leading to weight gain via lesser energy expenditure and calories);
- The massaged infants showed better performance on the Brazelton Scale on habituation, orientation, motor activity and regulation of state behavior;
- The massaged infants were hospitalized, on average, six fewer days than the control infants, yielding a savings in hospital costs of approximately \$3,000 per infant.

Depressed mothers massaging their infants

Because we need a cost effective way to deliver massage therapy to infants, and because parents as massage therapists may benefit themselves from giving massage, and because the massage experience may improve the parent-infant relationship, in our studies we are increasingly teaching parents to administer massage therapy. In a study currently underway, we are teaching mothers who are depressed to massage their infants. We want to examine the effects of the massage therapy on the infants' disorganized interaction behavior and their disturbed sleep patterns.

Adolescent mothers who have high Beck Depression Inventory scores are recruited for the study shortly after their infants are born. For this study we have asked the depressed mothers to perform a 15-minute massage daily for a two-week period. Preliminary results suggest the following:

- Infants' drowsiness and quiet sleep increased immediately following the massage, and activity decreased, as might be expected;
- The infants' latency to sleep was shorter following the massage therapy study (by the end of the two-week period the latency to sleep decreased from 22 to 9 minutes);

- The infants showed increased vocalizations, decreased restlessness and improved affect during mother-infant play interactions, and the mother's play behavior became more age-appropriate;
- The infants' fussiness decreased after the two-week period; and
- The infants' depressed mothers perceived their "depressed" infants as being easier to soothe.

These data on decreased fussiness and more organized sleep suggested that we should conduct studies having parents massage their colicky infants and their infants with sleep disturbances. Thus, we are using the same model for those groups.

Grandparent volunteers as massage therapists

"Grandparent" volunteers offer another cost-effective way of delivering massage therapy to infants. (Our volunteers are not biological grandparents of the children, but simply retired people who would rather be called "grandparent volunteers" than "elderly volunteers" or "senior citizens.") They belong to an organization of volunteers and have had many years of experience with young children. In an ongoing study, grandparent volunteers are being trained to massage children who have been neglected and/or abused, physically and sexually, and are now living in a shelter.

The study is designed to measure the effects of massage therapy on both the children and the volunteer grandparents of their giving the massage. (The elderly, like young children, experience failure to thrive, probably secondary to touch deprivation.) Our objective is to reduce both the grandparents' touch deprivation and the infants' touch deprivation, as well to reduce any touch aversions the infants might retain from having been sexually or physically abused.

The infants in this study ranged in age from three to 18 months. Since the grandparent volunteers were their primary caregivers in the shelter for the morning hours, the massage therapy sessions were a structured program integrated into the infants' daily caregiving routine. The preliminary results suggest the following results for the infants:

- Drowsiness and quiet sleep increased and activity decreased following the massage;
- After one month of massage therapy, alertness and tracking behaviors increased; and

- Behavioral observations suggested increased activity, sociability and soothability.

For the volunteer grandparent massage therapists, a preliminary analysis of the data suggested that:

- The grandparent volunteers reported less anxiety and fewer symptoms of depression and an improved mood after receiving the massage;
- Their stress levels decreased;
- Their lifestyle improved, with more social contacts, fewer trips to the doctor's office and fewer cups of coffee; and
- They reported improved self-esteem.

These effects appeared to be greater for the grandparents following a month of providing the infants with massage than they were following a month of receiving their own massages. These data suggest the power of massage therapy not only for the infants but for the adults who are massaging the infants, making it possible to cost effectively provide infants with massage therapy.

We have since discovered many other groups of infants who might benefit from massage therapy, such as those with cancer and spina bifida, as well as adults with different medical conditions that could improve from providing the therapy. The benefits of massage with normal infants, however, should not be overlooked, as often happens when so many infants have clinical problems needing treatment. Images of infants in Romanian orphanages remind us that children need physical contact for normal growth and development. Our culture's increasing restrictions on touching children (because of concerns about potential child abuse) may have severe consequences. In cultures and parts of the world without touch taboos, infants thrive (as do their parents) on this pleasurable physical contact.

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