

The power of Touch

By Dr Lin Day (www.babysensory.com)



A loving touch

Babies have a biological need for close physical affection. Nothing is more important to their emotional, physical and intellectual development than a comforting cuddle or a loving touch. What is certain is that babies who are cuddled, stroked and caressed are more likely to grow up to be loving social beings. They also gain independence and confidence, which leads on to an important milestone by the end of the first year: the ability to play alone.

Babies who are regularly held and touched gain weight faster, develop stronger immune systems, crawl and walk sooner, sleep more soundly and cry less than babies deprived of close physical contact. Children who are given plenty of physical affection show more task orientated behaviour, less solitary play and less aggression at school. They also achieve higher levels of educational qualifications in later life.


Touch deprivation

Numerous studies (e.g. Bowlby, 1995, 1999; Fridlund et al. 2012; Meaney et al. 2013) have shown that infants deprived of touch contact become lonely, isolated and troublesome children. Currently, about one in 10 infants experience neglect and about one third of clinic referrals are for emotional disturbances, hyperactivity, aggressive behaviour, and conduct disorder problems in children deprived of positive touch in early infancy (NSPCC, 2017). Physical symptoms such as eating disorders, excessive arm and leg hugging, overly compliant or subdued behaviour may be common in older children. Therefore, early detection is so important.

In a world where sexual abuse has become a growing concern, some parents may avoid any form of intimate care with their infant. Early Years Practitioners are also faced with a dilemma about whether to hug and cuddle children, hold their hands or pick them up when they fall because their physical affections may be misinterpreted. The Early Years Foundation Stage framework (GOV.UK, 2017) has addressed this important issue, stating that practitioners should not be afraid to touch or cuddle children at an 'appropriate' level or to give them physical comfort. In recognition of the benefits of touch for growth, development, learning and health, some pre-schools and primary schools have introduced touch therapies as part of good care practice.

Research

Through the work of Harry Harlow in the 1950s, and anthropologist Margaret Mead in the 1970s, it was established that early touch deprivation had overwhelming importance for healthy development in later life. Harlow for example, provided important evidence that physical contact was more important than feeding in young



rhesus monkeys. Harlow placed the monkeys in cages with two substitute mothers. One of these was made of wire and provided milk and the other was covered in soft cloth. The monkeys spent most of their time clinging to the cloth monkey for comfort, even though she did not supply milk. Monkeys deprived of comfort became indifferent or aggressive adults and had difficulty in mating and parenting. The critical need for touch was also highlighted by Margaret Mead. Human societies who withheld physical affection in infancy had significantly higher rates of adult violence than cultures who gave their children plenty of touch stimulation in the early years. Children who experienced touch were more social, less fussy and had better intellectual and motor development than infants who spent the majority of their time out of human contact.

Health scientist James W. Prescott believed that body contact was essential for the developing brain. Deprivation in early infancy caused neurological dysfunction which led to autistic behaviours and increased vulnerability to alcohol and drug abuse in adulthood: acts that attempted to compensate for sensory deprivation or loss in early life. Prescott's studies also revealed that parents who abused their children were invariably deprived of physical affection themselves during childhood.

Researchers (e.g. Skuse, 1984; Rutter et al. 1998, 2001; Feldman et al. 2014) have also found that babies and children raised in orphanages without physical contact in the 1920s suffered stunted growth and had abnormal levels of the stress hormone, cortisol. Those who survived had less than a 50 per cent chance of reaching puberty. The brains of infants left in cots were also 20 per cent smaller than those who were picked up, cuddled and cradled, despite adequate nutrition and hygiene.


Sense of touch

In utero, touch is the first sense to develop. Within 3 weeks of conception, the foetus develops a primitive nervous system which links skin receptors to tube-like cells at the tip of the embryo, which then expand and mature to form the spinal cord, and then the brain cells. By the 16th week, the foetus shows sensitivity to touch in all parts of the body and around the 25th week of gestation, virtually all the nerve pathways designed to carry pain signals are in place. At full term, the sense of touch is highly developed. No wonder it plays a critical role in the development of the parent-baby bond.

Touch is the last sensory system to fade as we grow older. However, the elderly still need touch as much as they did when they were young. Without it, they may feel disconnected, isolated, lonely and unfulfilled. Touch stimulation is vital for communication, for healthy functioning of the brain and hormonal balance of the body and for physical and emotional wellbeing. It is also an essential part of being loved.

Brain development

Studies (e.g. McEwen & Gianaros, 2011; Meaney et al. 2013), show that serotonin, one of the brain's neurotransmitter substances, is significantly reduced in children



who are touch deprived in early life. Low levels of serotonin are not only associated with Sudden Infant Death Syndrome, but also with aggressive behaviour, depression and suicidal tendencies in later life.

The brain also develops in response to other neurochemicals such as cortisol (stress hormone). Although normal levels of cortisol are needed for healthy functioning, touch deprived infants with consistently elevated levels may have difficulty in controlling their emotions and behaviour as they grow up. Oxytocin is another stress-regulating hormone released by close physical contact. High oxytocin levels in the parent and baby promote bonding patterns and the desire for social relationships. Oxytocin also interacts with dopamine, a brain chemical that has an important role in behaviour, learning, attention, motivation and wellbeing.


Physical contact with babies is essential for their physical, emotional and psychological development. In the absence of touch stimulation, release of important growth hormones may be inhibited in all parts of the body as well as the brain, liver and heart.

Touch therapies

Many of the touch therapies that have been practised for thousands of years in cultures across the world are now gaining acceptance as intervention or therapeutic therapies. Skin-to-skin and massage for example, can produce positive benefits for babies with colic and constipation, respiratory and sleep problems. They also stimulate nerves in the brain that aid digestion and are particularly beneficial for babies with feeding difficulties, and for infants with health problems.

Feldman et al. (2014) found that premature infants gained from skin-to-skin contact with their mothers 10 years after birth. Specifically, researchers compared standard incubator care to skin-to-skin contact, which uses the mother's body heat to keep the baby warm. They found that at 10 years of age, children who received maternal contact as infants, showed more organised sleep, better neuroendocrine response to stress, more mature functioning of the autonomic nervous system, and better cognitive control.

The positive effects of massage have been noted in children with Attention Deficit Hyperactivity Disorder (ADHD), autism, Down syndrome, dermatitis, stress and immune function disorders and in adults with Chronic Fatigue Syndrome, Parkinson's disease and osteoarthritis. Indeed, children with behavioural problems who receive massage show more task orientated behaviour, less solitary play and less aggression. Babies with Down syndrome have improved muscle tone and show a better performance on motor tasks following regular massage. Children with autism also benefit from massage, probably because it is predictable. Massage has an important emotional element for parents too because it provides an opportunity for them to get involved in a warm and loving way with their baby. It also gives hope to parents who have been unable to bond with their babies in the early stages of life.



Through massage, the muscles receive a good circulation of blood, which strengthens them for movement. The circulatory system in the hands and feet of the newborn is undeveloped: massage helps them to become warm. Massage also opens the pores and encourages the release of sebum, which prevents microorganisms from entering the baby's body. Babies who are regularly touched have a more stable heart and breathing rate and are less tense and irritable.

The other benefits of massage include:


- Decreased stress and anxiety
- Improved circulation
- Restful sleep
- Improved feeding patterns
- Increased alertness
- Reduced pain in teething
- Increased peak air flow in babies and children with asthma
- Improved muscle flexibility and motor function
- Increased intellectual development
- A happier, healthier baby

Some psychologists believe that one of the reasons why babies crave close contact is because of the need to recreate conditions experienced before birth. Techniques that mimic a womb-like environment include bathing, hand containment and skin-to-skin contact. Cuddling has a similar effect and reminds the baby of the sensation of being constantly rocked by the amniotic fluid in the womb.

Loose swaddling in a breathable cotton fabric creates a warm, snug and protective environment and has become standard practice in many baby care units. The baby's legs must be weakly tucked against the body to ensure that hip and knee flexion is possible. The arms can be tucked in to prevent startling or left free to enable the baby to self-soothe by sucking on them. To prevent overheating or asphyxia, the baby's face or head must not be covered by the wrap. Blankets may cause overheating and should not be used (Day, 2015). Deep pressure techniques such as being rolled up in a gym mat or sleeping bag have also been known to trigger the calming reflex in children with autism and ADHD.

Physical contact positively influences the development of the brain and deepens the relationship between mother and child. It also spells love, involvement, care, security and protection. Without it, they will not grow and develop into normal, happy, healthy children or adults.

However, timing is crucial. Warm and responsive care in the first year has a long-lasting effect on how children learn and develop, how they cope with stress, and how they regulate their own emotions and behaviour when they finally head out on their own. Children deprived of physical affection in infancy may be more predisposed to anti-social behaviour, physical violence, anxiety disorders and to alcohol and drug



abuse in later life. These behaviours may attempt to compensate for touch deprivation early in life. Although improvements can take place, it may take many years of hard work to help repair the damage from only a few months of neglect in infancy. An authentic cuddle, hug or affectionate touch from a genuinely loving parent or carer is the best source of preventive medicine.

Note

The most important guideline in touching young children is in respecting their likes and dislikes. A tickling or playful activity must be ceased immediately and without question if the child squirms, winces or cries. Touch also needs to be avoided in erogenous zones such as the inner thigh, groin, buttocks or breast areas because this could leave children vulnerable in allowing unwarranted sexual advances.

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