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Learning at your fingertips

-the meaning of touch in working with developmentally challenged individuals.



“Touch is a unique language with a large register. Through touch we can communicate

moods that cannot be expressed verbally, as touch is the true voice of emotion.”

(Ashley Montagu)

The sense of touch- “the mother of all senses”

To receive sense impressions through touch has a great impact on how we feel physically and mentally, as well as how we generally relate to being in the world. Skin is our largest sense organ, which in turn results in that we are affected by each and every sense impression the skin is exposed to.

As it develops in the fetus between the sixth and eighth week of life, the skin’s sense of touch is believed to be the sense to be developed first. Moreover, because the tactile nerves are so numerous and developed in such close parallel with the central nervous system, the tactile sense is considered the mother of all senses. It also represents an “outer” nervous system similar to the “inner” central nervous system, with it’s spinal cord, brainstem and the brain itself.

Impressions from the tactile senses are processed and influence what occurs and is experienced throughout the entire human form of existence. Physiologically, the tactile sense stimulates blood circulation, metabolism and hormonal processes. Mentally, the tactile sense influences feelings and memory. Intellectually, it has an influence on cognitive processes such as perception, analysis, recognition and planning. Together these exert a very significant effect on the functioning of internal organs, general health, perception of self, sense of thriving, problem-solving and action.

Tactile sensations are experienced in social, environmental and contextual relations, and greatly influence how the conditions of the individual are perceived both within and outside of him or her self. They also have an influence on the individual’s developmental and learning capacity.

These concerns point out how important it is to be aware of which potential for tactile impressions teachers and counselors make possible in common daily situations and learning environments.

Tactile sensory impressions are present in:

- Care-giving functions such as assistance with fulfilling basic needs.
- Spontaneous or planned sense stimulating activities such as “ball-puncture” massage, or Socio-educational Massage given on top of clothing, or directly on the skin.
- Natural and spontaneous emotional expressions such as a firm pat on the shoulder as a gesture of acknowledgement, a caressing of the cheek as a sign of tenderness, or stroking from the shoulder blades and downwards as a sign of calming or consolation.
- Cultural forms of greeting such as a handshake or a hug.
- Cultural forms of conditioned sociality such as dance, play and sports.

All of these are important parts of our body cultures. The way in which body cultures are practiced in a professional setting varies greatly within the Nordic countries. As teachers, counselors and therapists we must be aware of the significant role that body culture plays in our personal and professional environments.

Being developmentally and physically challenged often involves experiencing the world primarily through tactile sensations and actions. This body is that which is “thought with” and this is done mainly through unconscious or automatized processes. The body has a tacit knowledge about itself, and it is this inborn knowledge that the body acts through. Bodily and sensory experiences motivate and wake to attention the connection between sensation and body, and thereby make ready the capacity of the individual to meet new challenges.



Socio-educational Massage and it's effect on body and mind

Socio-educational Massage is a specially designed form of massage that combines learning with the art of communication through touch and massage.

Socio-educational Massage is a very direct way of providing an environment of sensory and empathic exchange in a controlled, safe and within an ethically sound framework. A framework of trust, calmness and presence. The different forms of touch in the massage calm the individual through a combination of variations, repetitions and rhythmic regularities. The energy that has been bound in built up tensions is toned down or is released.

Socio-educational Massage can be experienced as refreshing and exhilarating, and can be practiced so as to lift the level of arousal. By doing so, the massage is well suited to individuals with high levels of passivity and introversion.

Touch in the form of massage has a considerable effect on the functioning of the human organism. Stroking and gripping activate the tactile sense of the skin and muscles.

The skin contains sensory cells that are sensitive to soft touch, temperature variations, pressure and pain. Generally speaking, this defines what is known as the tactile sense.

Muscles, tendons and joints contain the body's cells for the deep sensing of pressure, temperature and pain. Together they make up what is called the kinesthetic sense.

Tactile nerve signals are activated through the touch, gripping, stroking rhythm and force of massage.

Hormonal secretion is correlated with a series of reactions which are often very marked in persons whom are physically and emotionally challenged:

- **Anxiety reaction.** In anxiety, the body releases the two neurohormones, adrenalin and noradrenalin, in the adrenal gland. They set the body in a crisis state by increasing levels of blood sugar, heart rhythm and blood pressure. They are experienced when a person is suddenly frightened. When applied with calming and firm gripping and a calming atmosphere, massage can weaken anxiety reactions.
- **Pain reaction.** In pain, the body releases its own opium like hormone, endorphin, with a calming effect on stress, tension, and pain reduction. Endorphin production is stimulated by massaging muscles whereby relaxation is experienced in the given area, resulting in both mental and physical pain reduction.
- **Stress reaction.** In stress, the adrenal gland increases the production of cortisol leading to a suppression and weakening of the immune system. In contradiction to this, massage provides a calming and relaxing effect, resulting in reduced cortisol levels and hence a strengthening of the immune system. Even as simple an action as having one's hand held can reduce cortisol levels.
- **Depression.** In depression, secretion of the hormone noradrenalin is increased through the adrenal marrow. Concentrations of adrenaline levels can be reduced through massage, and thereby reducing depression.



A relatively newly discovered hormone, oxytocin, plays a unique role in negotiating touch and pleasure. Oxytocin is released in the skin by soft and gentle touch, thereby creating a direct sense of well-being, enhancing fundamental trust and activating relational processes.

Example:

When a mother slowly and gently touches her newborn baby's soft skin, this hormone is released in both the mother and the baby. This is due to that the reciprocal reaction of touch between the baby and the mother, results in a releasing of oxytocin in both of them.

The reaction works both ways and has a fundamental effect on the creation of a relationship. It applies to later relational capacities in general life situations. The gentle touch that is provided by embracing, caressing, consolation and other gestures of care, also awakens well-being, trust and desire. It also activates openness and receptibility, which allows man to orientate himself toward and establish relations with the one who incurred the experience.

All forms of emotional experience contain developmental and learning aspects, such as:

- stimulation of existing neurological networks.
- creation of new tracks through new experiences and challenges.
- strengthening of bodily learning through sensation- to feel, understand and reflect one's being through being in the body: body consciousness.
- strengthening of self consciousness, social and environmental consciousness through contact, interaction and action processes.
- strengthening of the capacity toward reflection and concentration, as well as the capacity for self-efficacy , continuity and overview.

This indicates that touch-here in the form of massage- can serve a meaningful, calming, relaxing developing and learning function for all people.



Socio-educational massage in dealing with sensory integration disorder in the tactile senses

Sense integration disorder in the tactile senses can lead to an underreactive or overreactive tactile sense experience. Common for these are that they often result in sensory deprivation. The consequences of this can be social isolation and conflictive relations, with a subsequent loneliness and neglect of the individual's own need for touch. There is a need for more goal-oriented, early and continuing follow-up efforts, where touch, sense play and massage are all well-suited means to stabilize, mature and develop the tactile system.

An underreactive tactile sense (hypoarousal) can be seen when a proportionally high level of strength and duration is necessary in order to attain the target experience of tactile sensing. The outer signs can be expressed through the developmentally challenged individual, and include:

- wishes to continue to swing on a swing, take carrousel trips, get swung around in the air, move fast in vehicles.
- shows a lack of desire, or an outright antipathy to participation in motor activities in conjunction with sense stimulating activities.
- splashes uncontrollably with water and is not stopped by becoming freezing cold, or to stand for long periods with soaking wet shoes.
- eats by compulsively filling his or her mouth with food, and eating without any sense of being full, and with vomiting as a result.

- wishes to continue to be caressed and nursed, tickled or tumbled, and being overly dependent or without limits in his or her behavior.

Behavior arising from an underreactive tactile sense can lead to a passive reaction which is often characterized by stereotypical or hectic and restless behavior that is “without a goal”, in an attempt to gather sufficient sense stimulation.

With an underreactive tactile sense, massage therapy must encompass a proper combination of tempo, duration and strength in order for the tactile system to be aroused from it’s lethargy.

Recipients of massage with an underreactive tactile sense need a slow start to the massage, and the tempo is regulated according to the reaction of the individual’s bodily reaction. Later, the massage may grow into a quicker tempo, though never too quick so as to stress or overstimulate the recipient. It is in this way the recipient can be “awakened” and thus more present in body and mind.

In cases where an underreactive tactile sense expresses itself as hyperactivity, and where the recipient naturally has trouble calming down, there is a need to apply massage to a limited area with firm and slow movements. During the massage the teacher or therapist can supplement this by humming or by rhythmic movements. Another way is to place a hand along the sternum of the recipient and thereby supporting the recipient in resolving to a deeper breathing pattern.

An overreactive tactile sense (hyperarousal) is also known as tactile shyness, and is characterized by a very strong reaction to even the slightest of tactile stimulation. The outer signs of this can be that the developmentally challenged individual:

- looks away in neglect of physical closeness.
- tightens up and/ or twisting and turning upon being touched.
- protests, screams, cries or aggressive fits upon physical contact.
- expresses anxiety, flees, hides or begins to walk around.
- reacts through introspection and self-harm.

Persons with tactile sensory integration disorders often become tactilly shy, yet at the same time have the same need for closeness and sense stimulation as normally reacting individuals do. They have the same need for a sense of thriving and development, even though they often may consciously or unconsciously try to wriggle away to avoid physical contact. This reaction is comparable to a “normal” rejection of being touched that normal individuals experience now and then in conjunction with physical or mental stress.

In providing massage to a person with an overreactive tactile sense it is essential for a successful massage outcome, that focus is placed on adapting the recipient to the context, where trust and confidence are balanced between the teacher/therapist, the recipient and the task at hand.

Trust can be supported by utilizing recognizable repetitions in setting up the framework for the massage session. This build-up of trust relations must be done gradually, and even the smallest massage movement must be accompanied by a waiting for a verbal or a non-verbal acceptance or rejection of the massage movement.

In dealing with massage and touch, calm pressure application on tactile sense cells deep in the tissue and muscle, together with firm calm rubbing, are well suited to limit and reduce overreaction. In the long term, the objective is to attain a more relaxed and balanced relation to touch- toward better thriving and toward openings to experience creation, greater sensitivity to different forms of contact and improved relations with others.

An overreacting tactile sense may also express itself as tense muscles, and the developmentally challenged individual may need support to learn to let go of these tensions. In this context, one may aim toward working with the contrasts between be tense and relaxed, and the ability to let go of tension.

The result will often be a dynamic massage that helps the individual enjoy a more nuanced and balanced total body consciousness, and enables the individual to build on to this higher sense of possessing a physical and emotional register, as well providing a ground for a growing mastery of the integration of these.

Interactions and signals in body language

The method of Socio-educational Massage is based on an interaction between the giver and the recipient. The interaction is characterized by that both the giver and the recipient contribute to the process. In terms of communication, the verbal and non-verbal signals work both ways- from the teacher/therapist in the form of attentiveness, presence, initiative, questions and involvement, and from the developmentally challenged recipient in the form of response, willingness to express wishes by such means as, for instance, that the leg be stretched out to signal a wish to have more massage done at the present spot. A second example might be that the recipient holds the bottle with massage oil during the session to show his or her acceptance and continued participation in the massage session. The natural closeness that follows with the touch of massage provides a unique context of intimacy and trust. When trust is mutual, it opens the opportunity for social relations.



The relational contact from the teacher/therapist must contain qualities such as understanding, respect and empathy, and in practice there must be a continuity, predictability and a degree of adapted challenges and limitations in the massage activity itself. There must also be a supportive attitude and sensitivity to the developmentally challenged person's motivation, initiatives, involvement and endurance.

It will often be important to begin the massage on small or limited spaces of the body and slowly expand this area, while at the same time being careful to not expand too quickly. For some, the transition from initial assisted bodily care in the bathroom to massage in a designated massage room can be too demanding. In order to help in this transition, it may be necessary to place the individual in a wheelchair, on a chair or a mattress or a beanbag chair.

The tool of Socio-educational Massage entails touch and massage, as well as an active involvement on the part of both the giver and the recipient. The teacher/therapist must be mentally in balance and present. Furthermore, they must be conscious of their own body, their own limitations and their own attitude and appearance.

The body is constantly sending conscious and unconscious signals. In interacting with developmentally challenged individuals, it is important to be aware that body language plays a greater role than we normally associate with verbal language, and for this reason body language has a far reaching significance in the overall communication between giver and recipient. In order to understand and interpret the bodily signals of the developmentally challenged individual it is important that the teacher/therapist has gathered knowledge about the recipient and that he or she uses their intuition empathy, perception and professional knowledge to catch and assess the many forms of signals that arise. It is especially vital that body language is often the lingua franca in conjunction with the massage. During the course of a massage session, the following signals are seen:

- changes in breathing i.e. suddenly arisen hectic breathing or deep sighs.
- vocal sounds or changes in voice tone.

- muscle tension i.e. a leg that becomes so relaxed that it falls to one side.
- uneasiness- restlessness and quickly shifting body position.
- eye movement and eye expression i.e. vibrating eyes or avoiding eye contact.
- subtle changes in facial mimicry i.e. twitches in the corner of the mouth, around the eyes or the forehead.
- changes in facial color i.e. cold sweat or rise in temperature.

Limits and mental reactions

The need to work with limits is often central to working with physically and mentally challenged individuals. In the context of touch, working with limits in practice becomes all the more important, and this is very concretely supported by the recipient leaving their clothing on, so as to signal that clothing can represent a natural limit to personal intimacy and can be perceived as an underlining of personal integrity.

Some developmentally challenged have a decreased ability to feel and to set boundaries around themselves and for their own behavior, and there can, indeed, be significant advantages to training such abilities.

Others have an exaggerated tendency to set boundaries and can need to be relieved of some of these burdens. Both types can be included in the therapeutic target goals for the massage.

Principally speaking, sexuality is held quite separate from the practice of Socio- educational massage. Touch and sexuality are, however, closely related, and the objectives of the methods used demands clarity in limiting between the two areas i.e. erogenous zones are not included in the massage.

More often, the massage is accompanied by deep sighs of well-being from the part of the developmentally challenged person, both verbal and non-verbal expressions of how nice this is, here and now, to receive this massage. But the memory of early experience can also appear, because all types of recollection are stored in body and mind, creating traces of positive and negative types alike. Even with the balancing and collecting effects of Socio-educational massage, with it's strong emphasis on empathy, intuition and professional knowledge, the giver can never know for sure what the recipient can come into contact with during the massage session. If for that reason alone, the giver ought to be cautious in building up the content and scope of the massage. Massage can bring the recipient into a feeling of helplessness, in feeling the longing to be with persons the developmentally challenged person previously has had relations with. To feel longing can be painful and give reactions such as sadness, temporary unease and general vulnerability, and also lead to emotional outbursts. Subsequently, there can, depending on the capacity of the recipient, be an openness for reflection. The general relaxing effect that massage has on body and mind releases energy that can be used to work with problems toward a deeper clearing, self-understanding and harmony.

The educational support that is required following the massage, puts great demands on the ability of the educator to be present in the situation, and to be able to deal with the given situation. To provide support by being open, comforting, showing acceptance and understanding. To help the developmentally challenged person to contain his or her own feelings and, where possible, to try to attach words to these feelings. Wherever it is deemed necessary to direct one's educational efforts to an area outside of the educators own field of competency, such contacts are made to persons who can take care of these tasks. This, however, ought not to prevent educators from using Socio-educational Massage as the general developmental and well-being tool it is, to provide learning within the area of special education.

More in- depth descriptions of massage practice including grips and strokes, can be seen in the book : "Touch and it's significance- massage as an educational tool."

