

stereotypical rocking motions, muscle tension and anxious cries. Others withdrew into themselves. These deeply human reactions are seen in people with multiple disabilities.

Bakk and Grunewald (2004) have highlighted the situation for children and adults with intellectual disability, from psychological as well as medical, social and legal perspectives. They observed that individuals with developmental delays are easily caught up in chaos and anxiety when they cannot interpret what is happening. Many have a reduced sense of time, which means that they do not know when to expect things to happen during the day or how long they will last. Since they have no speech, there are many opportunities for misunderstandings, which can make them fearful; their fear can be interpreted as aggression. Bakk and Grunewald suggested that staff can prepare the people they work with for what will happen during the day and help create a sense of time using symbols, photographs or pictures. However, they did not discuss movement stimulation.

Granlund (1993; Grandlund and Olsson, 1988) made it clear in her doctoral dissertation how, by using systematic observations, it is possible to develop communication with people with severe intellectual disabilities. She emphasised the need for different sensory modes to be stimulated; however, the need for movement was not described in any detail. Although George Hill (Hill, 1991) has described one way to work with adults with intellectual disabilities, the movement experiences in SDM are mostly suited to those who are not limited in their movements or wheelchair-bound.

### **Methodology**

The starting point for Sherborne's ideas (2001) was that the fundamental need of the individual is that of security and trust in another person, which forms the foundation for developing relationships with others.

### **Participants**

At the two day centres, six people with multiple disabilities were given the opportunity to try SDM for six months. These individuals had no or very limited means of communicating. They had vision and hearing, but no speech. All, except one, were wheelchair-bound. They had severely limited mobility and intellectual disabilities. One participant was autistic. None used picture support proactively as a means of communication, although three people used symbols to prepare for activities.

The delivery of SDM was tailored to each individual with multiple disabilities. A physiotherapist assessed any misalignments that could have been painful in the context of SDM sessions; for example, severe flexion of arms and legs, spinal curvature, etc. As part of the analysis, the therapist tried to find comfortable and ergonomically correct starting positions for participants as well as staff. Staff were trained in SDM, and it was emphasised that self-expression was the basis for the movement programme, not the individual's physical misalignment. To tune into the other person, to mirror and to develop sensitivity are fundamental concepts when it comes to dealing with people with multiple disabilities who have communication problems.

Those who could not move actively were prepared for the next move to be performed in collaboration with their partner. It was important to meet the individual at their own level and to go along with their movement, confirming and respecting their body language. The facilitator provided different, pleasant stimuli to encourage movement and a response from the individual. In the beginning, the individual was supported through so called 'containing'.

Collaboration develops in SDM when the participant feels secure in their body. The facilitator and the participant can sit opposite each other, next to or one behind the other. Awareness of each individual's personal space grows, as does the secure relationship with the underlying surface. The participant initially goes along with the facilitator's movements, and then begins to initiate their own movements. The partners then begin to take turns in initiating moves. This develops further by taking turns in receiving and initiating, testing one's strength against each other, and then making moves together. The facilitator has to explore which tempo best suits the participant – slower or faster. Once the participant is confident, then the 'melody of the movement' can begin to be varied.

Bobath (1980) has described how spasticity and other forms of muscle tension can relax with specific sensory input. We have developed Sherborne's method for use with people with multiple disabilities by supporting small rocking movements in their arms and legs. This movement stimulates a wave of movement through the whole body. This can give a pleasant feeling of wholeness and strengthen the subjective perception of oneself as an individual.

Tempo, force, amplitude and fluidity of the movement can be developed according to individual needs. It is good to capture the contrasts and humour in the moves to enhance the effect. The other person's moves are mirrored and confirmed to build confidence. Damasio (2003) writes that confidence develops in the body through sensory input.

### ***Recording instruments used***

Data was collected through continuous, semi-structured diary notes, analysis of videotapes based on the Marte Meo method (Hedenbro and Wirtberg, 2000), and follow-up meetings involving the occupational therapists.

### ***Implementation***

*August 2000*

- Nine people employed at the two day-centres were trained to become facilitators at SDM Level 1 according to the International Sherborne Association criteria (<http://www.sherborne-association.org.uk/>). The aim was that the staff would feel comfortable themselves in their bodies and with the way of working.
- A baseline was developed, and objectives were formulated for each participant in the project based upon what they were capable of, how they expressed their needs, and their current motional behaviour and ability to move.

- An information event for the participants' families and legal guardians was arranged to give them the opportunity to ask questions and discuss concerns. Without their approval, this project could not have been carried out.

*September 2000*

- Staff started to use SDM, once to twice per week at each day-centre. The writer was available as a consultant when needed.

*November/December 2000*

- Follow-up meetings were held with staff at both centres.

*April 2001*

- Further follow-up meetings with staff were held.
- Video material was viewed and observations made by staff were collated.
- Practical exercises in body self-awareness were carried out.

*August/September 2001*

- Videotapes were analysed and edited, and reports collated. Feedback was given to those involved in the project.

## **Results**

The narratives below are based upon extracts from diaries, observations and reflections from the movement sessions, and analysis of the video films. All names have been changed to protect confidentiality.

### ***Viktor***

*Start of intervention: August 2000*

At the beginning of the first session, Viktor sat completely immobile and hunched over. He was a small and prematurely aged man with a wrinkled face and screwed-up eyes. He always brought a cuddly toy animal with him as a comforter during the day, holding it in a tight grip.

He had very little mobility. He could sit by himself on the floor, but sat with obvious tension and was perceived as uncomfortable on that surface. He did not move spontaneously, and could not stand up.

Viktor had no speech, and did not express his needs. He probably had very little understanding of time elapsed. He shunned bodily contact. Staff had almost given up on reaching him as a person.

*Summary of outcomes: June 2001*

Following the intervention, Viktor was perceived as more active than he had been at the beginning of the project. From being 'invisible', he had become 'somebody'. He often smiled and laughed, initiating contact and movement by stamping his feet on the footpads of his wheelchair. He had a livelier demeanour, and frowned, smiled

and looked expectantly at people, seeking eye-contact. He responded to questions with a smile, and showed through body language what he wanted and did not want. Relatives noticed a marked difference, observing that he was a lot happier and was making contact with them.

Viktor also had a straighter and prouder posture when sitting in the wheelchair. He had better circulation in arms and legs, which also felt warmer to touch. In movement sessions, he now dared to let go of his cuddly toys in anticipation of the experience. He now enjoyed the physical contact with people, and did not want to end the sessions. He had developed a sense of time, and demonstrated expectations.

### ***Inga***

*Start of intervention: August 2000*

Inga sat in a wheelchair. She often smiled at people – a stereotypical and anxious smile. She had a small, thin, birdlike body with stiff, hook-like arms and legs. She looked fragile, as if her limbs could snap. Her arms, legs and back were misaligned, and she could not sit or stand, although she could move her left arm slightly. She waved stereotypically with one arm. Her sense of time was in the present. She became anxious when left alone, and her requests for attention could be perceived as demanding. She communicated through pictures and photos.

She was not comfortable on the floor, and appeared frightened of making movements.

*Summary of outcomes: June 2001*

By the end of the intervention, Inga had become more focused. Her SDM leader perceived that Inga did not only demand, but she also reciprocated. She gave clear signals – through nods, meaning ‘Yes’, and using the right arm to indicate ‘No’. She appeared less anxious and frightened of movements, and could cope with waiting alone without crying and screaming.

She could now move without being ‘contained’, and did not pull her body together tightly in defence as before. Prior to the intervention, she had always screamed during physical therapy; now she seemed to enjoy the movements, and look forward to sessions. The tension in her legs seemed to disappear during sessions.

### ***Karin***

*Start of intervention: August 2000*

Karin was a young, wheelchair-bound woman with spastic legs. Her knees were locked in a misaligned position, and she had poor blood circulation in her arms and legs. She was able to wheel herself around the room, although she had to be strapped in across the hips so that she felt secure and did not fall out of the wheelchair when she waved her arms. She could stretch, seek contact, and show her needs. On the floor, she was able to roll her body, and sit by herself.

Although she could not speak, Karin could understand spoken words. She communicated using clear but stereotypic body language.

Karin had a strong and stubborn personality. She sometimes experienced deep anxiety, and then rocked her upper body back and forth violently, while emitting screams, extending her arms towards the ceiling in desperation and staring wildly. The staff were very upset by this. A heavy duvet sometimes calmed her down.

Karin needed emphatic and strong physical contact; for example, a strong hug. She found it difficult to accept unexpected sounds such as talking, sneezing and coughs. The sounds startled her and increased her anxiety. She needed to sit by herself while eating, so she was not disturbed, and was uncomfortable with new staff and in groups.

*Summary of outcomes: June 2001*

Following the SDM intervention, Karin seemed to be more secure. She had developed a range of moves that she could perform, and understood the humour during the movements. During sessions, she was able to enjoy the movements, then relax her body and wait without becoming restless. She had developed a better sense of time.

Karin had developed a relationship with [C.], but also with others. By the end of the intervention, she was becoming a member of the group and was accepted by the others.

On good days, Karin expressed happiness, and anticipated SDM. She also coped better with minor disturbances. If she was prepared in advance for a cough or sneeze, she was now able to accept the noise. On other days, she did not want to do SDM, and clearly showed when she wanted to be left alone. Her very deep dread and fear on certain days was still a problem.

***Sten***

*Start of intervention: August 2000*

At the beginning of the SDM intervention, Sten would sit immobile, seemingly half asleep in the wheelchair. Most of the time, he seemed tired.

Sten's movement was extremely limited. He was able only to move his eyes and head, and did not initiate any other voluntary movements. His whole body was tense, with the chest kept pulled in, like a cage that was too small for his lungs. He held his arms pressed close against his chest, but made no contact with the rest of the body. His hands and feet were cold, indicating poor circulation. Staff found it difficult to move his stiff arms. When eating, he was unable to hold the spoon himself, and staff helping him to eat found it difficult.

Sten's sense of time was only in the present. He needed concrete objects and their sounds to understand what was happening; for example, a ball enabled him to realise that it was time for physical exercise, or the sound of the hoist prepared him for lifting.

Sten liked bodily contact and action, and the staff felt that they would like to do more for Sten. However, he was easily left in a corner. The regular stimulation which he received was focused on personal care; for example, to help him to change his position

or to give tactile massage. The best contact Sten made with staff was through training in the therapy pool, when he could relax and balance his head for short periods.

*Summary of outcomes: June 2001*

Following the SDM intervention, Sten appeared more awake, and reacted more visibly to his environment. He often looked pleased. His sense of time developed, and when anticipating an exercise, his eyes were questioning and expectant. He seemed to take in everything that was happening to his body, his eyes following the movements as if he were rediscovering it.

Now, he had better circulation, and his head, arms and legs were warmer to touch. He appeared to have regained contact with his body. In a relaxed state, his whole body was more open than before. His arms were more flexible at the shoulders and elbows, and he could lower his arms to his stomach, which made it easier for staff to help him to eat.

Now that Sten seemed to be thriving, his parents felt more secure and relaxed about him, and felt able to go on holiday abroad. They noticed that Sten was more alert, that his body was more open, and that his arms were more relaxed.

***Tina***

*Start of intervention: August 2000*

Tina appeared to be a prematurely aged woman with a tense, scrunched face. She had limited facial movement, and produced a lot of saliva. She made only fleeting eye-contact with others, and wandered back and forth making stereotypical circular movements with her left arm. She expressed strong anxiety, sometimes crouching down on all fours and rocking herself.

During early sessions, she usually sat on the floor, turned away from the rest of the group. She did not dare to stretch out on the floor, and was anxious about moving and frightened of new moves.

*Summary of outcomes: September 2001*

Over the course of the intervention, Tina became calmer and her level of concentration improved. She was also perceived to be more engaged and to be participating better.

Her range of movements had increased. She had become more secure with her body on the floor, and dared to rest there, even without physical contact with her facilitator. She was able to rest her body in a more relaxed and symmetrical position, and was less stuck in stereotypic movements.

Tina showed responses through her body, and made more eye-contact. She started to smile, and to make more varied facial expressions.

***Anna***

*Starting of intervention: August 2000*

Anna was a young girl who could make contact with other people using her eyes and

through a wide range of vocalisations, although she had no speech. She had integrity, humour, and communicative body language and facial expressions, which she used to indicate clearly what she did and did not want. She was also able to communicate using photos of situations and objects.

Her range of movements was greater than that of her peers. She could kick using her left leg, move her hands slightly towards her body, and turn her head and balance it. Her whole body was spastic, locked in a permanent position with bent legs and crooked back. When highly tense, her ribcage rubbed against the hip bone, and this caused her pain.

She stiffened her whole body while being moved, and it was difficult to get her into the wheelchair or move her on to the shower trolley due to strong muscle tensions in her arms and legs. She was dependent on experienced staff, and was insecure with strangers. Afraid of moving, she did not want her arms to be touched.

On the floor, she was insecure. She had strong muscular tension, and very little spontaneous movement. She could not sit by herself.

*Summary of outcomes: September 2001*

Anna started to laugh when we began again in September! She seemed to have positive physical memories. Her co-operation, expectation and pleasure in movements were inspiring. She was able to lie down more symmetrically, and could lie on her side without producing as much saliva as before. She had better motor control of her mouth and was more relaxed in her body. She was no longer frightened and tense when being transferred to her wheelchair or the toilet. She had become more secure on the floor, and was less frightened of moving. As her body was more relaxed, daily care experiences were more pleasant for her and easier for the staff.

Anna also showed more security in her daily life. She no longer burst into hysterical rage when a new member of staff arrived, although she kept her integrity and still wanted to get to know people before they worked closely with her on intimate tasks, such as feeding.

**Discussion and conclusion**

The main participants in this study had severely limited movements and multiple disabilities and, lacking speech, and they had only a limited means of self-expression. Since taking part in the SDM programme, Viktor, Inga, Karin, Sten, Tina and Anna now had the potential to develop pleasure in movements, body language, facial expressions and gestures. They were able to relax their arms and legs into more extended symmetrical positions. Their posture while sitting improved significantly in two cases. Their range of movements increased, and they made fewer stereotypic movements.

There was an especially marked difference in those who were almost totally immobile. Two participants, who were perceived as completely immobile, initiated movements for the first time during the project. In two individuals, it was noticed that

there was improved blood circulation in arms and legs, as well as reduced saliva production.

The ability of the participants to communicate with others improved, and they were perceived by staff as more settled. They showed more trust in others, and eye-contact improved in those who had had a problem with this. They responded to the movements using different sounds, smiles and laughter.

Through this project, the participants also received more attention from staff members. Not only the people supporting movement sessions, but also other members of staff, noticed a positive change in other areas of daily living, such as meal times, toilet visits, lifting, etc., and parents as well as staff, in four instances, reported increased attention, increased calm and a sense of security in the home.

The nine staff who were trained in SDM were able to give the participants the safety and respect which is the foundation for co-operation. The project enabled a dialogue between the facilitators and the physiotherapist. The observations made by staff, as well as diaries and videotaping, added new knowledge about each person's disability.

### **The next step**

Following the implementation of the SDM programme, the attitude among the wider staff group at Viksängs and Stallhagens day centres also developed, culminating in an acceptance and positive expectation of SDM. Thus, there is now a favourable climate for staff to develop their work with SDM. The approach is gentle on both staff and participants, and it creates a calm atmosphere. The staff get immediate feedback through their collaboration with people with multiple disabilities.

To maintain the engagement and knowledge around SDM, it is important that the staff maintain the dialogue with SDM practitioners and the physiotherapist. Staff members need the opportunity to try out SDM sensitively and be creative in collaboration with the participants. However, people with multiple disabilities change, develop, become ill or age prematurely which means that the ways of stimulating movement will have to be modified in on-going consultation with the physiotherapist.

Continuing research is needed to investigate further the connection between intervention using SDM and the positive changes observed. The need of people with multiple disabilities for interaction and movement stimulation needs more attention. It may be that a lack of control of the body and a lack of ability to communicate produce a sense of insecurity, which was observed as fear of movement, stereotypical behaviour and tense muscles.

### **References**

- Althoff, B. (2005) *Sherbornemetoden*. Stockholm, Sweden: Fysioterapi.
- Althoff, B. and Ståhle, M. (1994) *Självillit, Rörelseglädje och Kreativitet: Sherbornemetodens grundstenar*. Stockholm, Sweden: Sjukgymnasten.
- Bakk, A. and Grúnevald, K. (2004) *Omsorgsboken*. Stockholm, Sweden: Liber förlag.
- Bobath, K.A. (1980) *A Neurophysiological Basis for the Treatment of Cerebral Palsy*.



- London: Heinemann.
- Damasio, A.R. (2003) *Descartes Misstag: Känsla, förnuft och den mänskliga hjärnan*. Stockholm, Sweden: Natur och kultur.
- Forsberg, H. and Hirschfeldt, H. (eds) (1992) *Movement Disorders in Children (Medicine and Sport Science 36)*. Basel, Switzerland: Karger.
- Granlund, M. (1993) *Communicative Competence in Persons with Profound Mental Retardation*. Uppsala, Sweden: Acta Uppsaliensis.
- Granlund, M. and Olsson, C. (1988) *Kommunicera Mera: Teoridel*. Stockholm, Sweden: Stiftelsen ALA.
- Hedenbro, M. and Wirtberg, I. (2000) *Samspelets Kraft: Marte Meo – möjlighet till utveckling*. Stockholm, Sweden: Liber AB.
- Hill, G. (1991) *Sherborne Movement with Adults* (Training materials). Sherborne Association (UK) [online at: <http://www.sherborne-association.org.uk/>].
- Sherborne, V. (2001) *Developmental Movement for Children: Mainstream, special needs and preschool (2<sup>nd</sup> edn)*. London: Worth Publishing.

---

**PART 4**

**Sherborne Developmental Movement in  
the Future**