Fig. 2. Helpers assist children from Vista Nova School with the preliminary exercises.

After more exercises along these lines lessons proceed normally, with the children learning to control their ponies at a walk and trot. Most pupils start with three helpers—one leading the pony and one on either side of the rider but, as a physiotherapist in England commented, “One should judge the success of the group not by the number of helpers one uses, but by the number one can do without!” Very few of our pupils now require more than one helper and many can ride their ponies alone.

Although always conscious of the need to have expert physiotherapy advice, we never lose sight of the fact that riding is recreation for these children and almost always include modified gymkhana games in the lessons. The children often go on “out” rides and on rainy days we try to teach them how to groom and care for the ponies and tack.

The children’s joy and interest in riding is evident in their smiling faces and the eagerness with which they attend each session, and the benefits can be summed up as follows:—

(a) Fun and recreation.
(b) An opportunity to improve balance and coordination, self-discipline and independence.
(c) Emotional and psychological.
(d) A social meeting ground for communication and participation with normal people sharing a mutual interest.
(e) The opportunity for contact with a living creature—one of the most beloved by all children—the pony.

Anyone interested in finding out more about the Association and its work should contact:

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Durban: Marie Dawson and Paula Peliz, Stonyhurst Riding School. P.O. Box 297, Hammersdale 3700.
Krugersdorp: Betty Proudfoot, Elspeth Richardson or Hetta Malan, West Rand School for Cerebral Palsied Children, P.O. Box 792, Krugersdorp 1740, phone 011-665-1267.
Port Elizabeth: Port Elizabeth Riding for the Disabled Association, P.O. Box 15994, Emerald Hill 6011. Organisers: Helen Sunde and Amber Ogden.

References

 Skyljng with Cerebral Palsied Children
Experiences in Switzerland

Elsbeth Kong, M.D.*

Onderwinding met ski vir seerbaad verloude kinders in Switzerland word beskryf. Probleme wat kinders met spesifieke gehers kondisies ondervind, word beklemtoon, asook die oplossings wat aan die lig gekom het. Ontspanning is die belangrikste aspek en vordering en prestasies word aangeraak.

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Sport has become the main recreational activity of the youth of today. It is therefore psychologically important that the cerebral palsied child can also take part in sports activities.

In Switzerland, skiing is a national sport. Earlier cerebral palsied children tried to ski but gave up again because they could not compete with other children. Could they be helped by a special way of instruction? Fortunately the Swiss Association for Sport
of the Handicapped gave their support to it.

The first ski-week was held in 1966. Twelve schoolchildren, from 8 to 16 years old, with different slight handicaps, were selected. They all had to be able to walk freely and easily in spite of an abnormal movement pattern; to stand on one leg for a short time; to get up easily from the floor and to change from one side-sitting position to the other. Normal intelligence was required. (These conditions have remained the same ever since.) A ski-instructor was in charge of the technical programme, assisted by 4 neurodevelopmentally trained (NDT) therapists who were also good skiers. Accommodation was in a wonderful old chalet in the mountains. A house-mother (herself an experienced and enthusiastic leader of handicapped scouts), a cook and a volunteer completed the staff.

The first hours with the children on skis were rather discouraging; the abnormal movements became much more pronounced under the stress. Some children could hardly move on skis. They fell all the time. Some could not get up alone. This made us realize that the children needed to be well prepared by dry ski-school (for instance knee-bending, parallel stick planting (to familiarize the children with their sticks); hemiplegics had to be urged from the beginning to move their non-handicapped side. The athetoids had great difficulty in keeping their skis parallel, in using the edges of the skis, and, in particular, the intermittent extensor spasm of the whole body made adaptation to the terrain very difficult; they tended to fall backwards on shoulders and head. Others had the tendency to fix themselves in the stem-position, like the spastics. The ataxics needed to concentrate very hard not to lose direction; they fixed themselves broad-based and stiffly in flexion, and a change of direction was impossible.

Trying to ski downhill, the wrong movement patterns again became accentuated:

The spastic diplegics blocked themselves immediately in stem-position (stiff inward rotation of the legs, corresponding to their walking pattern) or, if they succeeded in keeping their skis parallel, they remained in a posterior flexor position with no ability to adapt to the terrain. The hemiplegics, weight-bearing on their non-hemiplegic side, could not help being turned towards their handicapped side. The athetoids had great difficulty in keeping their skis parallel, in using the edges of the skis, and, in particular, the intermittent extensor spasm of the whole body made adaptation to the terrain very difficult; they tended to fall backwards on shoulders and head. Others had the tendency to fix themselves in the stem-position, like the spastics. The ataxics needed to concentrate very hard not to lose direction; they fixed themselves broad-based and stiffly in flexion, and a change of direction was impossible.

These observations made us decide that the children should learn to ski without stem. Of course they were thrilled to start immediately to learn the parallel technique, which they knew so well from pictures and movies, and they co-operated with great enthusiasm. The ski-lessons did not differ very much from the ordinary ski-lessons with normal children, except that the child had to be helped individually to overcome his special difficulties. And it is essential that there are adequate periods of rest between the various exercises, because cerebral palsied children get tired more quickly and then their patterns deteriorate.

The progression in the ski-technique was: skiing downhill in a natural loose position, with and without sticks, at first with broad base, then skiing downhill repeated or jumping with the posterior ski-ends only, then traversing the first christianias towards the slope out of a traverse.

The results after only one week of skiing were most encouraging. All children were able to ski down a small slope and climb up again by side-stepping, and when they fell, were able to get up without help. Some of them were proud of their first christianias. The happy community life of the camp was a new experience for most of the children. It was wonderful to see how they grew more like a family during the week. Not only did they play games, sing and laugh together, but they also understood and helped each other more and more.

Since then, more than 60 ski-weeks have been held in different parts of the country, generally 5 a year, about 200 children taking part each winter. The results are better than we had ever hoped. The risk of accidents is no higher than with non-handicapped children.

Good team-work between NDT therapists and ski-instructor has proved essential. The ski-instructor should be experienced in teaching children. He requires to know something of the abnormal movement patterns and how to influence them, in order to avoid asking either too much or too little from the children. The therapists should orientate him to the problems of the individual children.

The Special exercises in the snow are the bridge between therapy and skiing. With these exercises the children get the feeling, i.e. the sensorimotor experience, of the basic movements of skiing. At the same time, they obtain warming-up and loosening of the muscles and better mobility. The beginners need a lot of therapeutic preparation. Even in the advanced group continuation of this preparation, though less intensive, is still necessary, with more adaptation to rhythm and speed. The children need to feel the correct downhill and traverse position so that it can be automatized and integrated.

It is also important to introduce games of all sorts in the programme of instruction, for instance objects can be put down and taken up during ski-runs, traversing, by planting the stick downhill, etc. Everything, in cerebral palsied children leads to fixation in abnormal movement patterns with reduction of mobility. This was solved by using the step turn, in traversing, by planting the stick downhill and simultaneously bending and turning the legs, with weight transfer from the inner to the outer ski. Practically in this way, the children often did a stem christianias automatically without getting fixed in the stem position.
They do many transitional turns ranging from the *seem christiania* to the *step turn*. Only later will they master parallel turns.

After 12 years we have found that many of the slightly handicapped cerebral palsied children can enjoy easy downhill runs. Quite a number of them are able to master runs of medium difficulty, even longer ones and a few manage to ski in deep snow. They can ski with their family and with non-handicapped companions. The better ones are helpers at our ski-weeks. Others, less gifted for downhill skiing, have been taught and enjoy cross-country skiing.

To achieve this, more training, will-power and endurance is needed than in non-handicapped children, but the results are well-worthwhile for those who take pleasure in skiing.

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**SPORT AND THE CHILD WITH A LEARNING DISABILITY**


Die kind met leergestremdheid, uiteenlopend van aard, vind deelname aan sport dikwels moeilik. Dit kan egter sy lewenservaring verbreed mits dit binne sy persoonsmoontlike hede geskied. Finaliteit oor die besonderhede van deelname moet nog bereik word.

The child is presented as a physical-mental-spiritual whole to the adult responsible for his education. It is the duty of the educator, namely the parent, teacher, therapist or psychologist to educate the child as whole.

The school educates the child by means of didactic methods (transmitting knowledge), orientation (establishing a choice reference) and socialisation (social mobilisation). Thus the child is led to social emancipation during schooling by creating opportunities to enlarge his experience in a competitive environment; to develop a social conscience leading to self discovery and fulfilment; and to meet the opposite sex in a learning situation.

Social mobility is achieved through formal teaching in the classroom, extra-curricular activities and development of a community spirit in which extra-curricular activities play a part.

It is particularly with extra-curricular activities such as eisteddfods, debating societies or sport that the child with learning disability has difficulty in coping. Participation in these extra-curricular activities presents problems and makes demands on the person concerned with the education of such children.

The problem situation is intensified by the diversity of learning disabilities. Some pupils have multiple learning disabilities, which cannot be ascribed to a single factor. The pupil's learning disability may result in:

- Emotional disturbances, expressed in behavioural terms such as emotional immaturity, hyperactivity, passivity, a sense of insecurity and lack of protection, a feeling of inferiority, infantility and regression.
- Mental and emotional crippling expressed as a lack of the following: initiative and drive; sense of duty; perseverance, willpower and endurance; reliability and responsibility; experience of authority; independence and cooperation.
- Social immobility as a result of aggression or being withdrawn; being unfriendly or passive; a lack of self-confidence or unrealistic bravado; cheekiness; sensitivity; destructiveness; excessive jealousy; a tendency to plotting; truancy and trumpery.

If the above is accepted as guidance, then the following aspects of education, as regards the participation in sport by the child with a learning disability, can be highlighted.

**Acceptance of own body**

Man explores his world through his body. He manipulates his world and moves in it. One of the ideal goals of education is the acquisition of definite selfknowledge by the child. This can only be realised if the child has discovered his situation in his world as a whole. However, the child will only be able to discover himself by noting what happens in his world and to him.

It is the task of the educator to guide a child with learning disability, who is often handicapped in approaching his world, in such a way that he develops a positive selfimage; acquires his own identity, leading to acceptance of his own sexuality, mental ability and specific talents; arrives at moral judgement on physical matters and creates relationships with others in various situations.

**Development of positive selfimage**

Establishment of a positive selfimage implies knowledge of the peripheral components of his personality structure, such as interest, possible social qualities and emotions. The child is capable of self distancing, implying that he judges his own behaviour, that he has self knowledge and knows his own disability and ability.

**Establishment of moral values in relation to the physical**

With due regard to the development of the child's moral awareness, his participation in sport must be guided towards acceptance of values such as altruism, fairness, tolerance, discipline and honesty.

**Creating interpersonal relationships**

Acquaintance with the world of his fellowmen depends on his being made to feel at home in it. The child's participation in sport will give the educator the opportunity to guide him so that he learns responsible fellowship and also to compete with other pupils within moral limits; to accept authority and order; to utilise his spare time in a meaningful and creative manner; and to accept a proper girl-boy relationship.

The above are some features to be taken into account when the educator plans sport for the child with learning disability. Particular attention is necessary to avoid a situation where the child's participation in sport leads to development of a negative selfimage and to frustration expressed as aggression, uncontrolled behaviour and to lack of selfconfidence. Participation

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