

**Gabriela Bukowska-Johnson**

*Faculty of Physical Education, University of Rzeszow (Poland)*

## **HIPPOTHERAPY AS ONE OF THE FORMS OF REHABILITATION**

The present work shows one of the forms of disabled people therapy. This form is called hippotherapy that means cure, in which a horse is a main factor. A lot of various aspects of hippotherapy have been presented in order to understand the importance of this method. The conducted questionnaire showed the progress in cure of the children suffering from various diseases.

### **PREFACE**

After Poland joined the European Union there has been a lot of talk about “hippotherapy”, as more horse riding centres are getting built they are starting to include “hippotherapy” into there lessons

It is very good that there is growing interest in this method of rehabilitation but there are many centers engaged in activities with people with disabilities that do not have qualified instructors, lack of co-operation with physicians and also there are not enough adequately trained horses. Because of lack of training and co-operation from physicians these very affective classes are becoming very un-affective and people are not feeling the real advantages of “hippotherapy”. Certainly, they are people engaged in these activities, who really want to help people, however there are a lot of rules that must be strictly adhered to in order to fulfil the tasks of hippotherapy. First, do no harm (*primum non nocere*) - the main principle applies to physicians overwhelmingly in hippotherapy because this is an area closely related to with medicine and rehabilitation. Issues concerning this field are very large and include knowledge of medicine, rehabilitation, psychology and recreation. Persons intending to engage in such activities must first gain the necessary permissions instructor recreation with a specialization in hippotherapy. Circle of future professionals with a clear predisposition to work with both the child and with the horse, knowing the psychology of the animal further and have specific knowledge of hippology and horseback riding is not wide. Qualities such as patience, kindness, empathy and ease of communication in parallel with the child and the horse will not constitute a syndrome commonly occurring features but the good hippotherapy instructors have to have them.

### **HOW DOES IT WORK**

Using horses by health professionals to treat certain movement dysfunction is defined as a hippotherapy, which means treatment with the help of a horse. By definition, hippotherapy is a series of therapeutic interactions conducted with the participation of the horse which are used in the patient’s specific problems. The scope of the therapeutic effects of hippotherapy is very wide and includes both the impact of rehabilitation, educational, psychological and psychosocial.

In a properly conducted hippotherapy elements like therapeutic, educational and recreational intertwine depending on the needs and opportunities of patient. This requires of hippotherapy instructor knowledge not only on developmental disorders, a variety of diseases and methods for their improvement but also knowledge about the horse. The horse has to be specially prepared for these activities. He becomes the most important part in the work. The role of the patient is not controlling the horse but actively respond by adjusting their body to

the moving animal. Every step the horse makes puts the rider off balance and the patient has to adapt his own muscles actively to control position in the central part of the horseback. The experience of movement, including reaching out toward the horse and touching him, different seating positions and the introduction of progressive exercises allows the patient to achieve the objectives of the control of posture and sensory integration. Active participation, positions the body in space, the integration of the sense of sight, hearing and movement, all play a role in differing systems of action and reaction, between man and horse.

In hippotherapy, the patient becomes one with the horse. The duty of the therapist is a constant analysis of patient response and corresponding adjustment of the way to move the horse to adjust the pace and direction of movement of the horse to the patient's need. Hippotherapy is focused on the posture of the patient and his reactions to the move. Of course there are also other effects such as breathing, cognitive development and speech development. For example if the therapist is a physiotherapist and the main goal is to correct the posture of the patient and strengthen the muscles of the spine, resulting in strengthening the spine also improves breathing and speech of the patient. This is the uniqueness of the horse as a therapeutic instrument.

### **FORMS OF HIPPO THERAPY**

Choosing hippotherapy and a specialist lecturer for patients with various diseases or developmental disorders we should be aware that the problems of physical, mental and psychosocial mesh and dysfunctions in one area causing the risk of disturbances in other areas. Please also note that these forms are not rigid and all forms penetrating each other allowing for overall rehabilitation.

- Commonly distinguished several forms of hippotherapy:

Physiotherapy on the horse - it is very important in the proper use of the therapeutic properties of horse movement in order to improve movement of the patient and the individualized selection of exercises performed on it. This form is usually a continuation or supplement of physiotherapy. Physiotherapy on the horse is intended for people with mobility impairments, and orthopedic neurological origin. It is run by hippotherapy instructor or master of rehabilitation.

- Psycho pedagogical horseback riding – it is using and intensifies

Psycho pedagogical aspects of the sphere associated with the horse and horse riding. When can introduce elements of psychotherapy, speech therapy, educational games and activities, using specially prepared teaching aids. Activities in addition to horseback riding can also contain elements of horse care or simply work in the stables. Psycho-pedagogical riding is intended mainly for children and youth with mental problems, psychomotor delay, emotional disorders, deficits in vision and hearing. This form of hippotherapy can be lead by teacher, psychologist or occupational therapist.

- Therapy contact with the horse - is based on the patient's emotional contact with the animal. Ideal for people at odds with the outside world and especially the social environment. This helps the patient to unlock and deepen relationships with other people. In this form of hippotherapy horseback riding is not necessary. This therapy is for children with impaired social contact, severe social anxiety, autism, psychosis, behavioral disorders and not adapted socially. It is run by hippotherapy, psychiatrist or psychologist.

### **HIPPO THERAPY SPECIFICATION**

- Horses give the impression of human walk

Three-dimensional motion from the movement of the horse is passed through to the rider making the pelvis move forward and backward, falling sideways and rotational movements around the vertical axis of the spine. These movements are biomechanically virtually identical to the rolling movements of the pelvis when walking, so the normal

movements from the shoulders down to the pelvis are being worked. This gives the opportunity to learn to walk, "without walking." For disabled people using the horse may be the only experience of walking and using the body parts and muscles as normal.

- Horse reduces muscle spasticity

Damage to the central nervous system may result in increased tense muscle called spasticity, particularly in the extremities. During hippotherapy, the reduction is possible by: warming up the muscles (the horse's body temperature is higher than human body temperature) and by simply using the muscles relaxes them.

- Horse restores the disturbed symmetry of the trunk muscles

Through the movement of the animal, alternately tighten and relax the muscles of postural left and right sides of the body. Weaker muscles are strengthened. So, when you walk on the horse it restores balance and muscle tone on both sides of the torso.

- Horses prevent contractures and restricted motion in joints

This chain of movements, "a horse – rider's pelvis – his spine – shoulder – arm" starts rhythmically and gently work all the muscles and joints. Hippotherapy and riding decreases primarily adductor thigh muscle contractures and restricted mobility of the pelvic girdle.

- Horse stimulates the senses

Touch of horse hair, mane, variety of shapes, sound of footsteps, snorting friendly and nice smell associated stimulate the senses of touch, hearing, sight and smell. This is accompanied by continuous movement from its balance and the need for immediate counteraction.

- Horse is a balance force

Hippotherapy provides unlimited possibilities for progression and differentiation of balance. By speeding up, rocking, changing direction, stopping, moving, acceleration and deceleration, use of special layouts, appropriate exercises and games, horse movement becomes a powerful generator of balance.

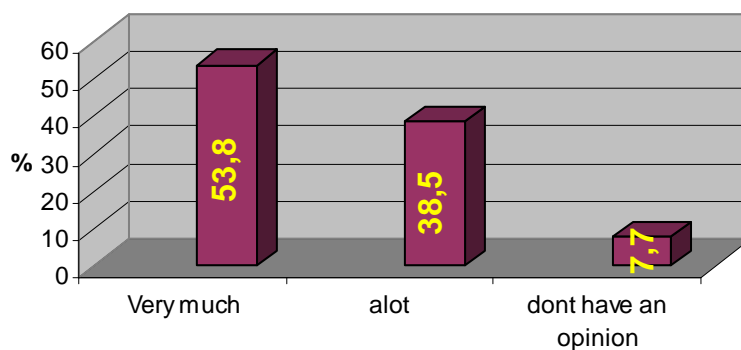
- Horse improves the working of the internal organs

By stimulating the endocrine system, riding improves blood circulation, respiration, bowel, and even the immune system.

## HIPPOTHERAPY IN PRACTICE (RESULTS AND DEBATE)

One of the studs conducted a survey among parents and guardians whose children attend classes with hippotherapy. In the survey, the question "do you like to participate in such activities", the answer was almost clear, as shown in graph 1 The graph shows that in the assessment a very large percentage of caregivers of children are very happy and willing to participate in therapy. Only 7.7% of the caregivers does not have an opinion formed due to a short period of using hippotherapy.

**Graph 1.** Do you like hippotherapy?



Source: own research

While working on a survey, it was observed that all the commands that render the young patients, for them were great fun, and not a series of forced exercises.

The aim of the survey was to show whether a hippotherapy is what really brings some changes in mental and physical attitude of the patient. Below are some interesting examples.

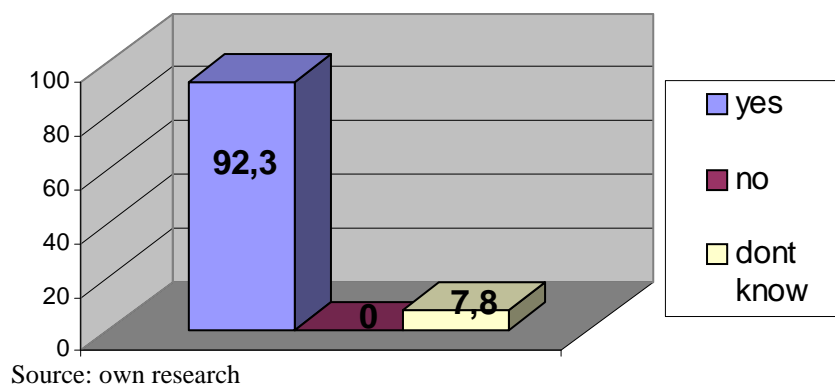
For children with ADHD they are big changes. Initial distrust and aggression to both humans and animals, turned into a friendship and affection. An eight year old boy, who was screaming and running around the stable at the start, calmed down a lot, now he comes with a smile on his face, welcoming the therapist and animals. Engaged in cleaning and feeding the horse, carrying out all instructions given by therapist he has improved coordination and balance to his body.

If an autistic person has a marked improvement not only in physical but also considerable changes in the psychology of patients people are becoming more open to the world and secure ourselves not only during performance of exercise, but also in everyday life. This can help the patients have greater concentration. They begin to pay attention to the commands of therapists and carry them out. Being with horses make children become much happier.

A seven year old child Anne suffers from delayed motor development with impaired muscle tone. This child is very eager to participate in the classes. At the beginning she was afraid of the horse but the frequent contacts with the animal broke fear. Now she is willing to ride and feed the horse with carrots. With hippotherapy Anne started to walk, it improved her muscle tone and motor coordination. The child had methyl tilt of the pelvis. At this time, the pelvis begins to set in a permanent position.

The progress that has brought children to this form of teaching is clearly evident not only by therapists but also by parents. The result obtained in the observation survey, shown in graph 2. Can be clearly seen that such a method of rehabilitation is very effective.

**Graph 2.** Does hippotherapy helps people [%]?



Only 7.8% of children do not have a clearly defined visible improvement in mobility. This is probably the result of too short a period of rehabilitation.

## CONCLUSIONS

Hippotherapy helped sick children to make better contact with the environment, stimulate the development of psychomotor, motivational processes to strengthen and balance the emotional processes. This shows therefore that hippotherapy is no ordinary riding lesson (as initially most parents, careers treat it), but it is a form of therapy that brings the desired results and makes the patients very happy to participate in and the results are very often greater than would be expected.

**REFERENCES:**

1. Izdebski S., Królik M., Paszkiewicz A., Wońska M., *Hipoterapia (Informator dla lekarzy, specjalistów i rodziców)*, Polskie Towarzystwo Hipoterapeutyczne, 2005.
2. Gąsiorowska B., Ceglińska R., *Hipoterapia jako jedna z form zajęć rozwijających psychoruchowo dzieci umysłowo upośledzone*,
3. Polskie Towarzystwo Hipoterapeutyczne „Hipoterapia”
4. Borkowska M., *ABC rehabilitacji*, „Pelikan” Warszawa 1989.
5. Cieśla A., *O hipoterapii słów kilka*, „Koń Polski” 8/2000.
6. Heipertz-Hengst C., *Jazda konna dla osób niepełnosprawnych*, PWRiL, Warszawa 1997.
7. Strauß I., *Hipoterapia (Neurofizjologiczna gimnastyka lecznicza na koniu)*, Kraków 1996.
8. Materials from equestrian „Rumak”

