Paravaulting

Authors: ***Jana Tomišková, Kürsat Özcan, Saša Tuksar, Ines Pereira-Figueiredo***

Project number: ***2022-3-CZ01-KA153-YOU-000102111***

Project title: ***Hiporehabilitation as Digital Education Interaction***

Action type: ***KA153-YOU - Mobility of youth workers***

Co-funded by the Erasmus+ Programme of the European Union

CONTENT

ÚVOD / INTRODUCTION

Dnešní populace je již seznámena s pojmem sport pro osoby se zdravotním postižením a zná také aktivitu s názvem hipoterapie. Málokdo si však dovede představit co je obsahem paravoltižního ježdění na koni a co prospěšného klientům s postižením přináší. Hipoterapie se zaměřením na paravoltiž je ve sportovním podání velice atraktivní disciplínou. Já jsem se 20 let věnovala jezdecké disciplíně voltiž, což je akrobacie na koni. V posledních letech s námi v rámci integrace trénovali a pořád trénují jedinci se zdravotním postižením. Pro tyto osoby je paravoltiž efektivní léčebná metoda a také pravidelná sportovní disciplína. Kůň, který působí na jedince svou přirozenou autoritou a svým bezelstným charakterem, se tak stává prostředkem k celkovému rozvoji osobnosti. Paravoltiž dává cvičenci velkou možnost projevu, seberealizace a rozvoje motorických schopností. Věnují se jí jedinci s různým postižením, kteří se učí se vzájemně respektovat a tolerovat.

Today's population is already familiar with the concept of sport for people with disabilities and knows the activity called equine assisted therapy. However, few people can imagine what the content of paravaulting riding is and what it brings to clients with disabilities. Equine therapy with a focus on paravaulting is a very attractive discipline in sports. For 20 years I devoted myself to the vaulting equestrian discipline, which is acrobatics on horseback. In recent years, individuals with disabilities have trained with us as part of inclusion process. For these people, it is an effective treatment method and a regular sports discipline. The horse, which acts on the individual with its natural authority and its guileless character becomes a means to the overall development of the personality. Paravaulting gives all athletes a great opportunity for expression, self-realization, and development of motor skills. It is used by individuals with various disabilities who learn to respect and tolerate each other.

DISABILITY

Disability is the subject of interest of health disciplines, special pedagogy, psychology, social work, anthropology, political science, and many other fields. Brenchin and Lidiard (in Oliver & Sapey, 1999) state that up to twenty-three different professions may be involved in addressing the diverse living conditions of people with disabilities.

Historically, the oldest definitions came from the medical environment, were related to diseases and diagnoses, and focused only on organ or functional disabilities. The traditional definition was described by the International Classification of Defects, Disabilities and Disabilities (ICIDH) from 1980, which was based on the World Health Organization (WHO). In it, disability was defined using three dimensions: impairment, disability, and disability. *Impairment* means disruption of the mental, anatomical, and physiological structure or function. *Disability* is characterized by a limitation or loss of ability to perform an activity in a way or to the extent that is considered normal for a person. And a *handicap* manifests itself as a limitation imposed on an individual by his or her defect or disability, which makes it difficult or impossible to fulfill a role that is normal for him. These terms are the basis for the WHO definition, which defines disability as: "*Partial or complete limitation of the ability to perform an activity or multiple activities that is caused by organ disorder or dysfunction"* (Krhutová, 2010).

The new WHO model does not primarily focus only on the characterization of diagnoses or organ or functional disorders, but focuses on how disability affects an individual's life, what limitations or disadvantages it brings to him, and what impact it has on his self-sufficiency, ability to work and quality of life (Novosad, L., 2011). It is intended to activate a positive attitude towards people with disabilities, namely the extent to which a person with a disability can carry out activities to engage and participate in social life (Krhutová, 2010).

SPORT FOR PEOPLE WITH DISABILITIES

WHO defines health not only as the absence of disease, but as finding and maintaining bio-psycho-socio-spiritual well-being. It follows that even a person with a limitation can subjectively feel healthy if he internally copes with a certain situation (Pacholík, 2010, pp.17-20).

Adapted physical activity (APA) refers to physical activities and sports in which special emphasis is placed on the interests and abilities of individuals with limited conditions, disabilities, illness, or age. These are services for individuals with unique needs, for whom it is necessary to adapt leisure activities, sports, wellness. The connection between rehabilitation and the educational process on the one hand, and the use of leisure time on the other. These activities relate to the lifelong activities of persons whose uniqueness of function, structure or appearance requires a professional approach in the evaluation and adaptation of physical activities (Mocková, 2000).

Sport for persons with disabilities can be practiced at different levels. Three different areas of sports activities are distinguished, namely recreational sport, performance sport, and top-level sport (Dovalil J., and others, 2002). Recreational sport is usually not about performance or result, but about positive personal experience, meaningful filling of free time, maintaining physical fitness, but also the opportunity to get into the natural environment. In recreational sports, it is also less likely that the athlete's strength would be overloaded and thus the health condition would deteriorate (Votava, 2005). Performance sport is a competitive hobby activity in sports clubs. It is organized and consists of participation in regular competitions of various age and performance categories managed by sports associations. The aim of performance sport is to gain positive experience, social contact, improving physical condition and self-realization (Dovalil, Choutka, Svoboda, Hošek, Perič & Bunc, 2002). Top-level sport represents the highest performance level of sport. It is manifested by higher demands on mental, physical, and technical readiness, lifestyle changes, higher requirements for professional coaching, higher demands on organization and finances, the need for assistants and aids. Top sports competitions are most associated with the Paralympic movement (Kudláček & Yesina, 2008).

The boundaries in sport of people with disabilities are constantly moving forward and it is only a question of how far their possibilities go and what their body and various aids will allow them. The performances achieved by athletes with disabilities are admirable and deserve general recognition. They are an expression of strong will and extraordinary motivation that leads a person to the realization of their resolutions, desires and wishes (Daďová, Čichoň, Švarcová, & Potměšil, 2008).

EQUINE ASSISTED THERAPIES

The superior and umbrella name for all therapies and activities in the area in which man and horse meet is called equine rehabilitation.

It is part of a comprehensive rehabilitation complex. The focus is always on the client and his disability; The horse is a means in the hands of the therapist. Therefore, it is important to find a suitable horse that will meet the client's needs. The main criterion for choosing the right horse is therefore first of all the client, then his possibilities, needs, type and degree of disability, height and weight of the client, ability and possibilities of sitting, ability to coordinate movements, degree of mental level, self-sufficiency and overall psyche of the client. (Jiskrová, Casková, & Dvořáková, 2010).

Therapeutic horse riding has a considerable impact on individuals with disabilities both physically and mentally. Equine therapy strengthens muscles, has a positive effect on posture, normalizes muscle tension, improves balance and coordination. It disrupts pathological stereotypes, mobilizes the spine and joints, and improves the functioning of internal organs. With a deep look at the psychological side, it induces feelings of well-being and relaxation, eliminates anxiety, distrust and fear (Sklenaříková, 2008).

PARAVAULTING

Paravaulting is identical to vaulting, which is an equestrian discipline described as gymnastics or dance on horseback, which is adapted to an individual with a disability. An athlete performs gymnastic exercises on the horse. They compete as individuals or in pairs. Paravaulting places high demands on physical condition, it is intended for individuals with a certain type of disability (Zelinka, 2007, p 11).

It is one of the few opportunities for the population with disabilities to become part of sports events. It is especially suitable for those who want to fight their handicap and have a recommendation for this sport from a doctor. It is a physically demanding discipline and places high demands on movement coordination and joint mobility. The athlete must master the exercise on a relatively small, constantly moving surface, which is represented by the horse's back. Paravaulting also requires rhythmic exercise, which leads to the induction of concentration and relaxation of the exercise.

OBJECTIVES OF PARAVAULTING

It is primarily about the development and improvement of motor abilities of individuals with disabilities within their ability to improve mental condition and the ability to cooperate with

other team members. One of the goals is also to promote independence and increase the self-confidence of individuals. Exercise should lead to feelings of satisfaction and joy from the results achieved and to motivation for further performance. An athlete should learn to spatially perceive his body, the positions of his body parts, control tension in muscles and be able to hold the upright position of the spine (Faksová, 2004).

HORSE FOR PARAVAULTING

Just as we distinguish different types of people, whether in terms of character or body, we can also look for these types in horses. Each horse is unique in its body structure and personality. We know from experience that the horse is a sensitive barometer of the personality of the person who works with it. Thanks to its developed senses, it can perceive subliminal signals that normally escape a person. The horse very sensitively perceives the current mood of a person. It receives information that we express in the form of non-verbal communication (way of movement and posture, muscle tension), as well as verbally (intensity, intonation, and trembling of the voice) and immediately responds to these signals. We do not deceive the horse, it "reads" the person at the moment of the first meeting and continues to perceive him accordingly. A horse is an animal living in a herd in social ties with clearly defined rules such as hierarchy, ways of communication similar to humans, and it needs very sensitive sensory equipment for its survival. It has its own characteristic behavior, temperament, experience, and so each horse reacts differently to stimuli from its surroundings (Sklenaříková, 2012).

When choosing a horse for equine therapy, we place the greatest emphasis on the mechanics of movement, for paravaulting we look for horses that do not have to be flawless in terms of movement mechanics.

When choosing, we are interested in:

- temperament
- good character
- reliability in stable and paddock care
- easy handling of the horse from the ground
- acceptance of beginners
- calm reaction to sudden unforeseen stimuli from clients or surroundings (howling, screaming, sudden movements)
- sufficient psychological resilience when changing clients

The choice of horse follows a clear rule: it is important to know for whom we want the horse and what we want to do with it. We have different requirements for horses for hippotherapy, which is mainly about the transfer of movement or activity using horses, and otherwise we select and prepare horses for para equestrian sport.

Paravaulting horse is one of the prerequisites for quality sport and its choice depends on many factors. This horse should be calm, and patient, not only during exercise, but also in the stable. When choosing it, it is also necessary to find out if it is not ticklish, because when exercising on horseback, athletes touch almost all parts of the horse in the area of the back. In terms of safety, ticklish, nervous, frightened, biting and kicking horses are therefore excluded from this discipline.

In addition to the character of the horse, its health and movement mechanics are also important. Preference is given to horses with a flexible back and a relaxed balanced gait, which to some extent depends on the body structure. The horse should be constitutionally sufficiently muscular, round in the back, with a well-set fleshy neck and a wide back.

For paravaulting riding it is very important that the horse is in good mental and physical condition. Therefore, adherence to a regular daily regime, with plenty of time for rest, field trips, staying in the paddock and pastures, are a necessity.

Principles that a horse should meet:

- a horse must be at least 5 years old.
- strong and flexible dorsal muscles – the horse cannot only perform equine therapy, it must be ridden in the saddle as compensation to maintain physical condition.
- tolerating touches all over the body, must not be ticklish – the horse must not react nervously, when touching different materials on different parts of its body, it must continue to walk calmly.
- be very obedient even when guiding on his hands, to do everything that is asked of him on a clear command.
- must be able to distinguish when to detect the slightest change in the rider's balance and when not to notice the rocking caused by the client with disabilities.
- just not be afraid of changes in balance – in this case, more figurants are used – lighter, heavier, who move awkwardly, lose their balance.
- stop immediately when the client loses balance and falls – for this training a hippologist or helper who suddenly falls is used.
- must not be afraid of sudden sound or optical stimuli – must not react to the rustling of plastic, stepping on a PET bottle, passing a car, loud music.

EQUIPMENT

The horse's equipment for paravaulting is identical to the equipment for vaulting. A bridle has the classic reins are replaced by outside reins and are attached to the handles. On the horse's back is a back pad. The horse is guided on the circle by a person (hereinafter referred to as a lunger) using a long rope, which is attached to the inner ring of the bit. (Faksová, 2004).

The athlete must have a tight, safe and fitting outfit that corresponds to equestrian sport and can correspond to the selected music and choreography. Only shoes with soft soles are allowed for exercise. The whole competition team consists of a horse, an athlete, and a longer rider, so it is advisable that the longer is aligned with the athlete (Rules of Paravaulting, 2007).

Types of surcingle:

VAULTING SIMULATOR

The simulator is an artificial horse made of wood or iron and serves as a training aid in the training of all sets.

COMPETITOR

Is an athlete who reaches eight years of age in a given calendar year. The upper age limit is unlimited. If the athlete is under 8 years of age, he may only compete on the simulator.

CLASSIFICATION OF DISABILITY

Athletes at competitions are classified into categories that are performed by a doctor or physiotherapist with a classifier course. Paravaulting has its categories described in the rules of equestrian sport of the Czech Republic:

1. ID – "intellectual disability" (specific developmental learning disability, dyspraxia, ADHD, ADD, personality disorder, mental retardation, Down syndrome, etc.)
2. PD – "physical disabilities" (Minor physical defects, internal diseases, hypotonia, Reduced limb function, coordination disorder, limb malformation, severe disorders of coordination or balance - cerebral palsy, peripheral palsy, more severe sensory defects etc.)

COMPULSORY TEST

A compulsory test is a sequence of exercises designed to test flexibility, mobility, coordination and interplay between the athlete and the horse. It consists of static and dynamic exercises. Static exercises must be performed in 4 counting times, which are equal to 4 steps of the horse, which is about 4 seconds. When describing the exercises, we use terminological brand names that correspond to the terminology used in paravaulting.

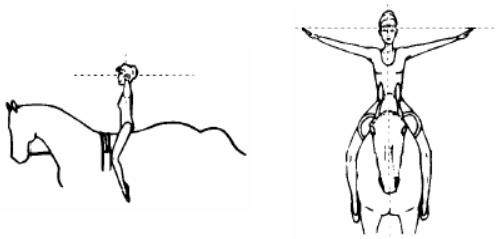
The compulsory test consists of 5 evaluated exercises:

- Basic seat
- Flag
- Mill
- Kneeling with clamping
- Jump inside

Mount on the horse

Mount on can be with assistance and is not evaluated by judges.

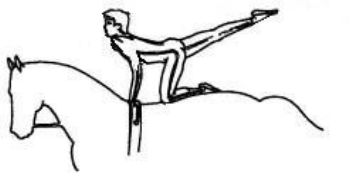
Basic seat



The athlete sits astride, in an upright sitting position just behind the volleyball belt, legs pointing towards the ground, in close contact with the horse. They form a straight vertical passing through the shoulder, hip, and heel.

The shoulders are parallel to the surcingle. The arms are stretched parallel, and the tips of the fingers are at eye level. From the front, the line of the lower limbs – knees, ankles and fingers – forms a straight line. After practicing the static exercise, the athlete grabs the handles with both hands at the same time.

Flag



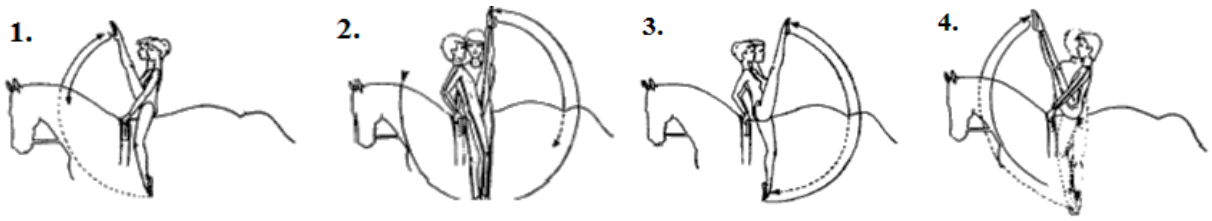
From a sitting position, astride, the athlete moves with both legs simultaneously to the kneeling position. The center of gravity of the body is distributed evenly between the upper and lower limbs. Left shin – from the knee to the toes of the foot remains in constant contact with the horse. The head remains in the extension of the torso with a slight tilt.

The right leg is stretched and plunged, and in one horizontal line. The back must not be bent. After completing the static exercise, the athlete rests the stretched right leg on the horse's side, stretches the left leg down to the horse's side and gently sits astride.

Mill

The mill is an exercise in which the athlete does not leave the sitting position at any stage. From a sitting position, the athlete performs the entire rotation of the exerciser in four equal time phases. Each leg is stretched and carried over the horse in a high arc (semicircle). The opposite leg remains motionless, directed downwards and is in contact with the horse.

The chest remains almost vertical at each stage. The head and body rotate with each movement of the foot. In competitions, the mill has four phases and is performed in four bars (horse steps).



Kneeling with clamping

From a sitting position, astride the athlete moves gently to a kneeling position. The legs remain together, from the knee to the toes of the foot, in constant contact with the horse. Eyes look ahead. Smoothly the athlete stretches to eye level. After completing the static exercise, the arms are folded, and the athlete again grasps the handles simultaneously with both hands. He glides softly into a sitting position astride with legs extended.

Dismount

From a sitting position, the athlete carries the stretched right leg over the horse's neck in a high wide arc. The chest remains almost vertical, while the left leg remains downwards and in contact with the horse without changing position. Each handle is released and grasped again during the movement of the foot. When the right leg is directed to the point where the horse's leading front leg touches the ground, the athlete's left foot meets the right leg, and they point backwards and towards the ground. The jump is with the legs almost together and in the direction of the horse's going.

FREE STYLE

In a free test athletes show their art with the help of choreography and music. They can plan their own lineup considering their abilities. The set consists of simple, medium, or heavy exercises and consists of static and dynamic exercises. For a static exercise to be valid, it must be held for 4 steps of the horse. Dynamic exercise is counted if the trainee's center of gravity moves in a different direction than the horse (Ježková, Jablonská, & Blažek, 2007).

Exercises of the free set are divided into groups based on a similar biomechanical structure.

STATIC EXERCISES

Static exercise is one in which the center of gravity of the athlete is at rest in relation to the horse.

The requirements of static exercise are:

- the athlete's body is stable.
- balance is achieved after four steps of the horse.
- compliance with the movement of the horse is achieved.

DYNAMIC EXERCISES

Dynamic exercise is one in which the center of gravity is in motion in relation to the horse.

The requirements of the dynamic exercise are:

- Body in motion
- During the dynamic exercise, the practitioner must remain perpendicular to the line given at the beginning until the completion of the exercise. Otherwise, the movement is out of control.
- The control of the dynamic exercise is determined by the relative length of time during which the movement is perpendicular to the support surface.

JUDGES AND SCORING

Paravaulting competitions are judged by 3 judges with a valid license. They are placed on the competition ring next to the letters A, B and C. Judges evaluate the exercises according to their performance compared to the ideal execution described in the guidelines for judges. All exercises are rated 0 to 10 points, where 10 is the ideal execution. In the free style, the judges evaluate the technical execution of the elements, the difficulty of the set and the choreography. The judge notes the harmony of the athlete with the movement of the horse, the originality and fluidity of the movements. The time of both configurations is not limited. (Zelinka, 2007, p. 37).

SPORTS TRAINING IN PARAVAULTING

Paravaulting is a very demanding sports discipline in which the athlete must perform on a moving horse. There are high demands on movement coordination, strength, joint mobility, and also endurance, all components of sports training are applied here.

Regular training is similar to the sport for health, but it takes place in smaller doses to avoid muscle overload, or in worse weather the athlete's cold or other complications. Sports training closely follows therapeutic-preventive and functional rehabilitation care, on which the possibilities of training load depend. All components form integral parts of preparation plans.

SPORTS TRAINING MANAGEMENT

In addition to the generally accepted prerequisites for the work of a coach, there are also requirements for knowledge of the type of disability, the possible development of the handicap and the peculiarities of the management of persons with sensory or intellectual disabilities. Most of the current coaches are coaches of healthy athletes who try to orient themselves in the issue. Special demands are placed on the communication of the coach with the athletes and with the members of the escort. It is a way of communication not only for deaf and blind people, but also for people with mental disabilities and combined disabilities. Integration between coach and athlete is very important. It is about creating a positive atmosphere in which athletes with disabilities would feel like equal partners and in which they would try to apply their activity to the greatest possible extent. In the sport of persons with disabilities, some conditions and prerequisites are necessary for effective management of sport at the necessary level. For example, cooperation with sports organizations is pending. This is closely related to the persistent architectural barriers of sports facilities and

facilities (swimming pools, fitness centers, ski resorts). Of course, unresolved economic conditions also play a role here (Dovalil, et.al. 2002).

The specifics of training units according to Buchberger, Kvapilík & Pavlů (1998), which can be used for selected types of disabilities, are:

Intellectual impairment

- not too much information at once
- illustrative (show a lot)
- clear and simple rules (games, competitions)

Physical disability

- fundamentally according to the recommendation of a sports doctor (stress tests)
- Beware of contraindications
- consistency in warm-up (without big "peaks", never to the maximum, always the phase of calming down and relaxation)
- consider environmental influences (beware of heat, stuffiness, frost)

PREPARING AN ATHLETE FOR A TRAINING UNIT

Athlete preparation for paravaulting is divided into several phases with an individual approach to each individual. Trainees must first be acquainted with the environment of the riding area, the rules of the stable and all obligations. The initial interview determines and evaluates what requirements will be placed on the trainees. Goals and a training plan are set.

The preparation includes contacting the horse, guiding the horse and all related work: feeding, cleaning, harnessing the horse, etc. The procedure is carried out according to the courage and feelings of the athlete.

A simulator is used for the actual training of all elements, because its dimensions approximately correspond to the dimensions of the horse's back and has the same riding equipment. On a stationary tool, athletes learn to gain more confidence and courage and get rid of any fear of height. It is important when exercising on a trainer that the athlete learns an exercise, which he then practices on the horse with confidence, appropriate gentleness, and consideration. Exercises on tools are not only included in the preparatory phase of

paravaulting, but usually during the season alternating riding with exercises on the simulator and in the gym. Even before each training session on a horse, training on the simulator should be included so that the athlete is not inconsiderate to the horse. All training is based on the compulsory set, during which the basic elements are mastered, from which the free set is then developed.

Very important is the interaction between the coach and the athlete and the athletes themselves. It is about creating a positive atmosphere in which athletes with disabilities would feel like equal partners and in which they would try to assert their activity to the greatest extent possible.

RECOMMENDATIONS FOR PRACTICE

From the available research we can draw conclusions for practice and we hope that this publication will help future or novice coaches to form a picture of working with clients in the preparation and actual operation of this sport discipline.

- People with disabilities are comfortable learning by imitation. Verbal instruction alone will suffice only in very simple cases.
- When working with people with disabilities, it is necessary to proceed very slowly and tolerate frequent inaccuracies and imperfections. The child has difficulty perceiving small details, so it needs a longer time to automate the movement. Do not expect rapid development in children and be prepared for the fact that they very often forget what they were convinced they can do.
- To remember certain activities, it is necessary to repeat the rules more often than for other children.
- People with disabilities are very spontaneous, rejoicing in every little success. It is therefore necessary to provide them with an activity in which they have the opportunity to experience success and joy. Therefore, let's not put too many demands on our clients and try to creatively invent such physical activities that will satisfy them.
- The training unit for paravaulting must be assembled in such a way that it corresponds to the general requirements for the construction of training but is adapted to the specificity of work with horses and work with clients with disabilities.
- It is important that the scheme of the training day changes as little as possible, even though it may seem routine after some time, so with small variations it is possible to achieve an almost ideal execution within the individual handicap. Athletes remember

the scheme in several training units and know what will happen next. They know their duties, which greatly contributes to a faster and smoother course of training.

- When implementing the movement program, the aspect of client safety and an individual approach to their specific mental and motor characteristics resulting from the nature of the disability are very important.
- When implementing the movement program, it is advisable to create a friendly, but also motivating and responsible atmosphere. An important role is played by the confidence of the trainees in the trainer or trainer, who can fully devote himself to the trainees even in the integrated form of training. For this reason, we would recommend 2-3 people when implementing the movement program, including at least one gymnastic trainer with a trainer's license and a paramedic or physiotherapist.
- When applying gymnastic exercises to the movement program, it is necessary to proceed from the information that the focus must correspond to the mental capabilities of individual athletes, their health condition and the specifics of disability. Athletes should first learn to manage the preparation for physical activity and try to move independently. Furthermore, stimulation of movement in space and development of active movement itself. Cultivation through movement and aesthetic education are one of the key topics of the educational process for people with disabilities.
- In our sport, it is not about the difficulty, but especially about the quality of the execution of individual exercises. The muscles are then strengthened and the functionality of the exercises for individual gymnastic elements or acrobatic exercises begins to show.
- It is important to note that each athlete with a disability needs to be approached extremely individually regarding his individual needs and it is necessary to emphasize the overall development of personality rather than sports performance.

References

1. Buchberger, J., Kvapilík, J., & Pavlů, D. (1998). Problematika pohybových aktivit seniorů a zdravotně postižených:soubory příspěvků prezentovaných na pracovních konferencích s mezinárodní účastí:. *Pohybová aktivita starších a zdravotně postižených občanů.* Praha: Fakulta tělesné výchovy a sportu Univerzity Karlovy.
2. Cacek, J., Nykodým, J., & Michálek, J. (2008). Trénink koordinace (obratnosti) I. *Atletika, č. 717*, stránky 23 – 25.
3. Daďová, K., Čichoň, R., Švarcová, J., & Potměšil, J. (2008). *Klasifikace pro výkonnostní sport zdravotně postižených.* Praha: Karolinum.
4. Dovalil, J. (2009). *Výkon a trénink ve sportu.* Praha: Olympia.
5. Dovalil, J., & Choutka, M. (1987). *Sportovní trénink.* Praha: Olympia.
6. Dovalil, J., Choutka, M., Svoboda, B., Hošek, V., Perič, T., Potměšil, J., a další. (2002). Výkon a trénink ve sportu. Praha: Olympia.
7. Faksová, M. (2004). Paravoltiž. Olomouc: Katedra Aplikované tělesné výchovy.
8. Jelínek, M. (2009). Prosazování práv zdravotně postižených osob v oblasti trhu práce. *Bakalářská práce*. Brno: Masarykova univerzita, Fakulta sociálních studií.
9. Ježková, A. (2004). *Paravoltiž.* Olomouc: Česká hiporehabilitační společnost.
10. Ježková, A., Jablonská, J., & Blažek, D. (2007). *Pravidla paravoltiže.* Praha: Česká hiporehabilitační společnost.
11. Jiskrová, I., Casková, V., & Dvořáková, T. (2010). *Hiporehabilitace.* Brno: Mendelova univerzita.
12. Krhutová, L. (2010). Teorie a modely zdravotního postižení. *Sociální práce*, stránky 49-59.
13. Kudláček, M., & Ješina, O. (2008). *Integrace žáků s tělesným postižením do školní tělesné výchovy.* Olomouc: Univerzita Palackého v Olomouci.
14. Kulichová, J. (1995). *Hiporehabilitace.* Praha: Nadace OF.
15. Měkota, K. (2000). Definice a struktura motorických schopností. Novější poznatky a střety názorů. *Česká Kinantropologie*, stránky 59 - 69.
16. Měkota, K., & Cuberek, R. (2007). *Pohybové dovednosti, činnosti, výkony.* Olomouc: Univerzita Palackého, Fakulta tělesné kultury.

17. Nerandžič, Z. (2006). *Animoterapie aneb Jak nás zvířata léčí: praktický průvodce pro veřejnost, pedagogy i pracovníky zdravotnických zařízení a sociálních ústavů.* Praha: Albatros.

18. Oliver, M., & Sapey, B. (1999). Practical Social Work. Hampshire: Mamillan Dostribution Ltd.

19. Pacholík, V. (2010). Ve vodě s úsměvem. V *Aplikované pohybové aktivity : v teorii a praxi* (stránky 17-20). Olomouc: Univerzita Palackého v Olomouci.

20. Rieder, U. (1991). *Richtig Voltigieren.* Munchen, Wien, Zurich: BLV Sportpraxis.

21. Seliger, V., & Choutka, M. (c1982). *Fyziologie sportovní výkonnosti.* Praha: Olympia.

22. Sklenaříková, J. (2008). Vliv speciálního pohybového programu na rozvoj koordinačních schopností u vybraného souboru v paravoltiži. Brno: Masarykova Univerzita.

23. Sklenaříková, J. (2012). Výběr koně pro paravoltiž. *Animal Breeding* (stránky 67-71). Brno: Mendelova univerzita v Brně.

24. Svatoňová, K. (2006). Jezdectví. *Jezdectví* . Praha : Pražská vydavatelská společnost.

25. Votava, J. (2005). *Ucelená rehabilitace osob se zdravotním postižením.* Praha: Karolinum.

26. Zadnikar, M., & Kastrin, A. (2011). Effects of hippotherapy and therapeutic horseback riding on postural control or balance in children with cerebral palsy: a meta-analysis. *Developmental Medicine & Child Neurology*, stránky 684–691.

27. Zelinka, J. (2007). Absolventská práce. *Paravoltiž a Hipoterapie*. Praha: Palestra.

28. WHO. (5. 1 2012). *World health organisation*. Načteno z World health organisation: http:\\www.who.int/evidence/assess-instruments/gol/index.htm