

OCCUPATIONAL REHABILITATION IN CHILDREN

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Abstrakt

The main goal of the presented study is to analyse key factors of the occupational rehabilitation in children. Occupational rehabilitation is appropriate and individually selected for patients under the control of a physiotherapist and occupational therapist and has to be "tailored". Allows, based on individual training plans not only exercise of daily living activities, but also work habits and skills needed to get a job or maintaining the original work. It is an important means of therapy for those individuals who are not expected to improve their health status and to shift to a different profession, whereby the patient is able to integrate into mainstream society. Targeted measures allow reintegration into the labour market with respect for individual professional needs, capabilities and skills of the individual. Well performed work and independence of its performance leads to higher life satisfaction and self-assessment.

Keywords

Occupational Therapy, Occupational therapist, Process of occupational therapy in children.

INTRODUCTION

Occupational rehabilitation is a component of a comprehensive rehabilitation, which goal is based on individual plans implemented with patients with disabilities, to enable practice of work habits and skills necessary to obtain a suitable job or retain the original job. Occupational rehabilitation may be meaningful daily activity for patients with severe disabilities in social services. It is an activity that helps to work and integrate people with disabilities into mainstream society. It restores the highest attainable level of personal, physical and mental development, improves physical and working efficiency. The goal of rehabilitation is to wake up, to mobilize and activate inner strength that will overcome the consequences of disability and motivate for the next life.

Occupational therapy is seen as a meaningful activity and is one of the means of medical rehabilitation. For small children takes place through games and

other forms of playful activities considering developmental age of the child. It uses the natural playfulness of children. Within children, there is often a variable degree of inattention and concentration, aggression, hyperactivity and antisocial behaviour.

As declared Tamase et al (2018) paint play activities positively influent on colour recognition and colour preference in young children might be in a childcare environment that guarantees the voluntary of young children. In the paints play activity in this research, young children chose paints freely, poured in container carefully, and poured out, mixed or compared another colour with other children's paints. They showed the teachers the paints mixed and made by themselves, and received their recognition. And they devoted to mix colours, taught other children how to mix paints, or were being taught from the other children. The children made dress and made hand and foot from full of paints, and for about 50 minutes they spent times tackling paint play activity until they were

satisfied. Such experience might raise the ability of the colour recognition in young children and promote a spread of colour preference. It is important for children to raise awareness of various colours and to use the colours effectively in their daily life through early childhood education. The present research suggests that children should be raised in an environment where they can play actively for everything that exists in the world surrounding them and can experience to have rich sensibility. The future research is to expand the age group of the target children and to examine what kind of child care environment affects colour recognition and colour taste in young children positively in each developmental stage.

Therefore, in the foreground in work with children gets work rehabilitation in the purpose of social reintegration and education. It concerns various daily occupations and work on fine motor skills, which is carried out either individually or in groups. The program is targeted to individual developmental assumptions and age of the child, because they are still developing their personality. Manual work should support hobbies, creativity and autonomy of the individual. It focuses on activities with precision and perseverance, description of objects and naming of pictures, which are hidden in symbols. Situations are induced which are addressed to the child. Achieved could be the development of speech, mimic and social manifestations. Trained is the procedure to solve specific practical problem, which develops logical thinking. It is used as a visual perception in the form of objects, pictures or by description of the cards (word pictures). It is necessary to give time for reflection and explain the order of further steps in the occupational therapy.

The occupational therapy should be taken in the form of games in which the goal is to achieve changes in behaviour, attitudes and opinions. Praise after each treatment is very motivating. It

encourages the activity, independence and the finding of new procedure. The activities must interpose a break due to fatigue of the child or the challenging exercise on concentration alternated with exercise with a minimum concentration. Exercises should be substitute as often as possible, they should not last long, but they must be finished. By disorders of concentration it begins with a short and monotonous exercise, gradually accelerating pace of exercise. If the patients is more labile, the parent is also present that the child can overcome fear. Occupational rehabilitation is used for psychological abreaction, facilitates removal of accumulated stress, helps to develop social skills, communication and mutual acceptance, and fills sense of life. It is used also for children with stroke (cerebral palsy), attention deficit disorder (ADHD), autism and developmental disabilities. Occupational therapy has an important use also in children home institutions and hospitals, since the work is embracing social roles and habits that are used after leaving the institution (Jansa, 2005).

Caring for people with disabilities is exhaustive for their parents and healthy siblings. At the same time it could be socially restrictive. Same offloading is attending school facilities for several hours a day, which produces qualitatively different schedule from the program, which can be provided by the family. It is particularly the social interaction and communication, personal interests, but also to feel the usefulness of autonomy and independence from their parents. Ending of school attendance in terms of current legislation is individual and between 19-20 years. In this age ends all the possibilities of intervention or assistance, that educational institutions are able to these families offer. Relay of the professional care should then be taken by the social and health institutions of the municipality, city or county in the

form of therapeutic programs and intervention services in the social, health, private and other specifically designed facilities (Krivošítková, 2011).

Occupational rehabilitation in adults

Occupational rehabilitation for adults – healing by work, work rehabilitation is meaningful therapeutic activity for physical, sensory or mentally ill persons, including persons with disabilities or social disadvantages. It uses therapy of motoric - intellectual function, sensorimotor functions, social skills, training of cognitive functions, and training self-sufficiency with the goal to achieve independence in personal and social life. It is carried out individually, taking into account the possibilities of each individual person; it helps to learn how to live with disabilities or health limitations. It distracts the patient from disease and brings back the lost trust. It uses self-sufficiency training, conditioning occupational therapy. The occupational therapy is leading occupational therapist, who must be knowledgeable, educated and empathetic person, who at the effective physiotherapy with disabled persons must be familiar with different types of disabilities, determine the resulting needs of the individual as are the individual devices and rehabilitation professional support. They must be able to identify weaknesses in the society in relation to disability and barriers that could hinder their integration and be familiar with their elimination on the basis of existing legislation (Gershuny, 2000).

It is known that for any job are important right upper extremities, namely hand. It is the hand contact with the environment and is among the most important parts of the human body. It is complicated and most complex organ. A hand with the fingers is the one that is capable of doing work. To restore the complex functions of the hand is suitable occupational therapy, which teaches the

hand again to exercise activities, enhance them and to practice. Patients with disabilities under the supervision of an occupational therapist are testing their job skills, abilities and habits during the execution of specific work tasks. It begins with training of simple activities and gradually passes to the more complex activities. Movements at work must be targeted and accurate. To achieve this are used various tools and instruments that are or are not modified. The aim of the occupational therapy is to maintain and utilize individual skills needed to manage normal daily activities, developing daily living activities on regular base to keep e.g. themselves clean or their surroundings, as well as work and leisure activities, within different types of disabilities. Frequently these activities are designed for manual operation as woodworking, work with metal or performance of administrative activities. The primary goal is the ability to participate in everyday activities, when the occupational therapy has a stimulating effect on the maintenance or recovery of lost forces and especially in restoring of confidence of the patient. Work distracts the patient from the illness, deprives him/her from pessimistic thoughts and is very effective prevention of depression. Occupational therapy helps to find on how to bypass or compensate permanent health disorders and again quickly and effectively participate in life. This increases the possibility of inclusion - participation in community and society. After completion of testing occupational therapist will evaluate the overall outcome and performance with a recommendation to any future job respectively focus on work with either wood, metal, paper, textiles and so on. Currently, occupational therapy in its extent does not utilize manual work, craft or art activities, but more often is devoted to practicing self-sufficiency and independence - personal hygiene, dressing, eating, practicing the use of

assistive devices, adjusting the conditions of life and work, preparing the patient to return the original work, or other possibilities of careers, similar as in social rehabilitation. Some authors state as that the criterion of working activity Vigdorcik's pattern:

Working ability = functional capacity/
employers requirements

This fraction should be in normal proportions always equal to number 1. At the beginning of the occupational therapeutic program tend to be lower than number 1, and gradually is closer to 1. If the impact of the occupational therapy and physiotherapy reach to level 1, there wasn't reduced capacity to work and is not needed to change the requirements of the employer. If functional capacity remains permanently reduced, it is necessary to amend the requirements of employment, respectively prepare the patient for employment, in which he/she will be accepted by the altered functional capacity. This is done in ergo diagnostic workshops, later in educational institutions in the form of retraining. Individual States shall endeavour to easy the gain of employment to persons with altered functionality with various concessions to employers.

OBJECTIVE

The main goal of the presented study is to analyse key factors of the occupational rehabilitation in children. The partial objective was to define the methods of the occupational therapy that are most effective in children.

The research question: Does self-sufficiency correlate with motor skills of children”?

METHODS

In the methodological framework the following methods were chosen during investigation procedure: content analysis, analysis and synthesis, induction and

deduction, causal and operative thinking.

RESULTS AND DISCUSSION

The basis of vocational rehabilitation is ergo diagnostics. It is a method of testing the patient in the long term. Limitation of the result of a disability does not always lead to incapacity. It is precisely the role of physiotherapists and occupational therapists evaluate and determine the professional diagnostic assessment of current or residual work potential, which is what a person can cope with disabilities in employment. They evaluate functional condition closely with medical and occupational rehabilitation, or mental, physical resilience. They evaluate the extent of health shortness and uncovers hidden reserves, which will be able the patient use in future. Occupational therapy is a comprehensive examination that takes place during the ergo therapeutic activities at the time, which is consistent with the normal working hours. It specifies, what for the change of the health of the patient can and cannot be done, but also what is he/she able to handle (World Federation of Occupational Therapy, 2004).

Occupational Therapy is a profession that seeks to involve the individual as much as possible in everyday, leisure and work activities. The priority of occupational therapy is the functional diagnosis of daily life activities for children comparable to the average abilities of healthy children of the same age, based on the diagnosis of creating a short-term and long-term occupational therapy plan and individual intervention (Tamase et al, 2018).

Disabled physical, mental or with multiple disabilities are then aware of what jobs they can perform and handle. It assesses the current state of the functional point in the view of the possibility of returning to employment and the current status within the reduced working ability. First, the doctor examines

the patient, which anamnestic detects the presence of current diseases, educational achievement, assess the ability to concentrate, tempo of work, attention, perception, concentration, imagination, perseverance, responsibility, criticality, the current level of self-sufficiency and necessary utensils, cognitive ability. Then are implemented standard ergo-diagnostic tests, tests on computers, measuring reaction time, tests on the requirements of future employment, or the possibility of obtaining a driving license. Ergo-diagnostics takes place during work in normal working hours in artificially created working conditions. Assessed is the understanding of work, quality of work, ability to collaborate, sensory capabilities, and the ability to withstand adversity environment from the effects of physical pages and compliance with safety standards. Then the patient is examined by the physiotherapist and occupational therapist to assess the mobility of all parts of the body, range of movement, muscle tone, functional disorders of the locomotors system, evaluated is the degree of self-sufficiency, mobility, and implemented is the test fine motor skills.

Assessed is suitability of assistive devices and monitored is the long-term burden within the ergo therapeutic workshops. However, if the patient's functional capacity remains unchanged, or permanently impaired, it is necessary to prepare the patient for another job that would accept his/her functional disability. There are a number of tests which are used to Ergo diagnostics, e.g. Tower System of Assessment, test Ertomis, test FCE (Functional Capacity Evaluation). These tests are not used in the Slovak Republic yet, but in the world are known and widely used (Diegel, 1995).

American Tower Test System of Assessment is based on a system of assessment and recovery during labour. German test ERTOM evaluates apart of disability also properties as psychomotor

and pace of work, motivation, attention, perception, concentration, memory, imagination, independence at work, inspiration troubleshooting, teamwork, criticism, responsibility, stress resistance, endurance, speech and writing. ERTOM uses a four-point rating scale:

- 0 - good performance
- 1 - Performance with less difficulty
- 2 - Performance with greater difficulties
- 3 - Inability of desired performance

Professiogram is description and analysis of physical activities, as well as personal, sensory and physical properties that particular work or job title implies. Moreover evaluates the mobility of all parts of the body, sensory capabilities, and the ability to withstand adversity of environment by the effects of physical effects. The first group includes CIMT (constraint induced movement therapy), bimanual training, context-focused therapy, botulinum toxin occupation therapy, and homework. The second group included e.g. Vojta's method is widely used in the Czech Republic, as well as hippotherapy, positioning and stretching (Sancedetem, 2019).

Sheltered workshop

Sheltered workshop is a specific working place, where operates at least 50% of people with disabilities, who cannot find employment in the labour market. This is a non-profit organization. In these places are working usually mentally disabled people with moderate to severe disability, but also people with physical or sensory disabilities. Employees are trained to work in such working conditions and demands on the work, which are adapted to their disability and the condition and provide them with increased protection. Sheltered workshop and sheltered employment is intended primarily for employment of people with disabilities, the employer cannot provide appropriate jobs to other sites. In a

sheltered workshop or a sheltered workplace can work people who are providing acquisition of professional skills or training for employment. It may also benefit employees who for health reasons are temporarily unable to perform their current jobs, if their employer has for them no other suitable employment. To establish a sheltered workshop can natural or legal person.

Employees are during the course of employment under the direction and supervision of erudite work assistants who help them and explain how to handle work activities and ensures the relevant existence costs. Sheltered workshop provides its employees apart of labour integration also with consulting and advisory services, as well as with organized joint activities. The aim of the current policy is to create employment opportunities for the disabled people. Inclusion in the process of occupational rehabilitation depends on the state of health and work capacity (Best, 2010).

In the sheltered workshop is implemented exercise of fine motor skills, which is important for the function of the hand and fingers, fine muscle control, for the activities of daily living. It is one of the basic assumptions for writing. Without fine motor skills and dexterity of fingers is patient not self-sufficient, he cannot commit Shoe Laces, turn knob. It is used to grip small objects, the use of occupational therapy panel, tap the legs, throwing the overball, embroidery, sewing, knitting, drawing, as well as holding pens and writing, blanking, modelling, inserting balls into the box, to build various departments of construction, and so on. Before each exercise is important muscle relaxation, relaxation of shoulder, elbow and wrist. It is necessary to choose an appropriate exercise intensity, in different variations, with a change of pace (Act of the National Council of the Slovak Republic, 2003).

Within physiotherapy are used

several types of handles:

- Ball - wrist in dorsal flexion, metacarpophalangeal joints in extension, 2- 4th finger abduction and slight flexion of the thumb in opposition.
- The cylindrical - wrist is in the basic position, metacarpophalangeal joints and fingers in flexion, adduction of the fingers and thumb in opposition;
- Cone - like cylindrical grip, finger flexion toward the fifth finger decreases;
- Elliptical - resembles a combination of cylindrical and spherical grip;
- Typing - metacarpophalangeal joints in extension, 2 and 3 finger in mild flexion, thumb in opposition, grip is performed between the first three fingers;
- Power - wrist in ulnar by reduction of the fingers slightly flexed and opposition thenar thumb is located on the axis of the subject;
- Tweaking - thumb in opposition and against the extension of extended finger, the index finger is important m.flexor digitorum profundus and thumb m.flexor pollicis longus and m. opponens pollicis;
- Eyelet - opposition to the thumb flexed flexed finger;
- Key - on extended thumb in opposition to the radial edges slightly flexed finger 2 are crucial m.adductor pollicis longus pollicis and m.flexor;
- Pinch - three fingers grip, on extended thumb in opposition of extended versus 2 and 3 finger;
- Tweezers - slight flexion of the thumb and index finger by touching grinder, important for m.flexor digitorum superficialis forefinger and thumb abductor and m.flexor pollicis brevis pollicis

m.adductor, m.opponens pollicis.

Precondition for the smooth grip design is the presence of:

- Morphological - healthy bones, joints, muscles;
- Movement - the extent of joint mobility, physical chains and stereotypes;
- Sensitive - deep and superficial skin perception.

Council of Occupational Therapists for the European Countries (COTEC) was established in 1986 with the purpose of coordinating the views of the National Associations of Occupational Therapy in Europe. The aim of COTEC is to enable National Associations of Occupational Therapists to work together to develop, harmonise and improve standards of professional practice and advance the theory of Occupational Therapy throughout Europe to best address the social and health issues affecting European citizens. COTEC strives to make Occupational Therapy visible, valued, accessible and available for all European citizens by supporting its members and by collaborating on European level Cotec Council of Occupational Therapists for the European Countries, 2000).

COTEC is the European organization for all Occupational Therapists through their National Associations, with the purpose of ensuring an adequate number of high quality occupational therapy practitioners and services in Europe. COTEC is a non-profit organisation (NGO) and represents 30 European Occupational Therapy Associations and more than 180,000 Occupational Therapists. COTEC is a regional group of the World Federation of Occupational Therapists (WFOT). Since 2014 COTEC is registered in the European Transparency register, facilitating an open decision-making process in Europe

(Czech Association of Occupational Therapy, 2008).

CONCLUSION

Thanks to the occupational therapy the patient could find the meaning of life and interest in the work, the opportunity to continue and enjoy their hobbies, forget the loneliness and disease, gain a sense of usefulness and social integration. This is helping in growing of personal confidence and improves the quality of life. Treatment by employment is an essential part of rehabilitation. It has a beneficial effect on the re-education of movement, positive thinking and mental well. It helps to gain confidence and belief in their own abilities. It is important to find such meaningful work, that the patient is able to perform, tends to it, and that he/she enjoys. This proves the positive answer to the research question, that it exists correlation between motor skills of children development and their level of the self-sufficiency.

Rehabilitation of children with disabilities continues to adulthood. Their skills will help them take care of themselves, gain in life employment or provide the necessary assistance. It is important to develop their skills and abilities in the natural way, and that is the game. Just movement games and playing bring new elements and inspiration to the work of an occupational therapist because movement represent a wellness activity which do not bring themselves a healing, but they can be used as an important supplement. The correct application of playing and game will be an enrichment and benefit not only for the client but also for the therapist.

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