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Rehabilitation and social counseling for people with bilateral lower limb amputation

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Значення реабілітації у пацієнтів з двосторонньою трансфеморальною ампутацією

Вища школа охорони здоров'я та соціальної роботи Св. Алжбети, м. Братислава, Словаччина

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Introduction

Currently, civilization diseases are on the rise. The number of amputations is also increasing due to complications. For an individual, this is not only a health issue, but also a social issue. Particularly if the lower limbs were amputated bilaterally. A person's quality of life also changes as a result of these changes.

Aims: in our paper, we focus on social counseling and rehabilitation, which involves not only improving physical condition and regaining mobility, but also reintegrating the individual into society.

Amputation and quality of life

An amputation involves the removal of soft tissues along with the skeleton from a peripheral part of the body. The procedure results in a functional and cosmetic change with the possibility of prosthetic treatment. Amputations are generally performed for the following reasons: vascular diseases, infections, tumors, necrosis [2, p.119].

Amputations can also be caused by congenital malformations, but this is a relatively rare occurrence [9, p.157]. In the course of the surgical procedure itself, there is an attempt to preserve the bone as much as possible in order to improve the possibility of prosthetic treatment and control of the prosthesis. The quality of life is significantly affected by amputation. The course of an individual's life is influenced by a variety of factors, not just one main factor. As a result of the interaction of various factors (e.g. education, family environment, work environment, various forms of stress), each of us has a unique personality. As a result, it appears to be difficult to define the quality of life. There is a need for a holistic approach. The concept of quality of life was originally a political and economic one. Gradually, it has penetrated fields such as sociology, psychology, pedagogy, nursing, and medicine. In the literature, subjective quality of life is referred to as SQL [5, p.54-55]. A person's quality of life is not only determined by his or her own standards, but also by the environment in which he or she lives, as well as by the needs and requirements of others. It is influenced by social, health, economic, and environmental factors, which may also interact. Furthermore, it involves questions regarding the meaning and usefulness of one's life. Quality of life is therefore a multidimensional phenomenon. It includes material (biological, neurophysiological, economic), spiritual (ethical and aesthetic), social and individual dimensions. In reality, some dimension can dominate, some can be suppressed [3, p.56-57].

Social counseling and rehabilitation

A social worker's duty is to determine the nature, scope, and causes of a person's social situation, as well as the possible solutions or mitigations, and then to guide the person [10, p.77]. Multidisciplinary care embraces not only the material area, but also the biological, mental, social, cultural, and spiritual [1, p.131]. Within the context of social assistance, it focuses on activating when overcoming an unfavorable social situation and on providing specific, professional information. In counseling, resources and opportunities are used to deal with life's problems. A counselor helps a person adjust his actions so that they suit him and also conform to social, legal, and moral standards. Through social counseling, workers assist in solving a new life situation. There is a preventive and a corrective component to counseling. The goal of prevention is to eliminate the causes of the problem. Social problems are directly solved by corrections. In caring for a person with a disability, social work must be complex. It is important to take a holistic approach to an individual's needs. It includes four components: 1. individual – feeling of satisfaction, 2. social – relatives and family, 3. medical – appropriate to the current state of health, 4. emotional – a certain degree of emotional and spiritual help. People with a disability who are partially or completely dependent on aids, devices, or the help of another person face problems related to their physical independence. Social integration difficulties occur when an individual has difficulty establishing and maintaining social relationships. In order to help, social work uses a methodology that has stages: – analysis of the situation, which is done by interview, observation, or using available medical documentation, – state social diagnosis, prognosis and degree of dependency, – an action plan to solve the problem, whether short-term or long-term – monitoring how the actions are implemented [1, p.112, 139, 141].

In complex rehabilitation care, the goal is to reintegrate the individual into society. A person's ability to participate depends on whether and to what extent he or she has a disability. In addition to medical rehabilitation, educational rehabilitation (more commonly used with children and adolescents), occupational rehabilitation (focused on the individual's employment) and social rehabilitation are all types of complex rehabilitation. The purpose of therapeutic rehabilitation is to improve the state of health, alleviate or eliminate functional impairments through the application of health care. Creating favorable physical conditions for social application is the objective. In the field of rehabilitation, this is a complex of treatment procedures. A number of medical rehabilitation procedures are available, including physical therapy, kinesiotherapy, and ergotherapy [11, p. 173]. Physical therapy uses the action of natural healing means: mechanical energy – mechanotherapy, electrical energy – electrotherapy, thermal energy – heat treatment, hydrotherapy – uses the action of physical and chemical properties of water, climate therapy – physical stimuli of the climate, balneotherapy – physical effect of natural healing sources such as peloids and gases, light therapy – electromagnetic energy from light sources [4, p. 9]. Movement is the basis of kinesiotherapy. As movement functions are developed, other organs are also affected. The term includes therapeutic physical education in any form, including individual, group, and hydrokinesiotherapy [11, p. 177]. In ergonomic therapy, work is used as the main method of treatment. Work ev. games are used for: detachment from the disease, useful filling of free time during treatment, purposeful employment to prevent the development of depressive or neurasthenic conditions, for the individual it is an opportunity to learn about motor ev. the job functions he has left and the possibility of using them. Employment therapy is also part of occupational therapy. Psychologically, it has a positive impact on a person's mental state, particularly their thinking and psyche. In addition, it provides an opportunity for an individual to return and activate. It is possible to intensify mental activity by focusing on a particular task. Detachment, partial load, and a test of abilities arouse positive emotions such as interest, ambition, self-confidence, competition, and adaptability. During this stage, the mental side takes center stage. Occupational therapy focuses on the physical condition in the next phase. The following forms of ergotherapy are used here: – generalized – focuses on healthy parts of the body, strengthens physical fitness and condition, – specific – concentrates on the damaged part of the body, restores basic and complex movements of the affected part, instills correct movement stereotypes and working positions.

The therapeutic education of self-sufficiency is an important component of occupational therapy [4, p. 365]. Social rehabilitation methods are used in this program. It covers a wide range of activities and areas that a person with a physical disability engages in on a daily basis. The aim of this program is to achieve the highest degree of independence possible [11, p. 188]. Self-sufficiency, personality reintegration, self-confidence, autonomy, and joy of performance are supported. It contributes to the stabilization and activation of a person's personality [4, p. 366]. In any activity, i.e. in the application of complex rehabilitation treatment, healthcare workers apply basic bioethical principles: – autonomy – the patient's right to self-determination, – beneficence – providing a benefit to the patient, – nonmaleficence – not harming the patient, – confidentiality – control over information about the patient, – justice – the distribution of goods and services, – quality control [11, p. 174].

Results and discussion

An examination of the effects of bilateral amputation of lower limbs was conducted in patients hospitalized in the National Rehabilitation Center in Kováová between 2017 and 2021 at the end of a 5-year period. There were patients with bilateral transfemoral amputations, bilateral transcrural amputations, and combined amputations – on one side in the thigh and on the other side in the foreleg. Eight weeks of complex rehabilitation treatment were completed by these patients. There were 50 patients treated during the monitored five years, but five of them did not meet the criterion of treatment duration, so they were excluded from the study. Premature termination of treatment was mainly caused by acute exacerbation of concomitant diseases, or non-cooperation in organic psychosyndrome following a stroke. There are 45 patients in our sample, but the number of hospitalizations over the course of five years is much higher, totaling 56. Therefore, after receiving a new prosthesis, the patient can return for a repeat stay to practice walking with the new device. Up to 80% of the 45 respondents were men, namely 36. Nine women made up 20% of our group. Among the patients, the youngest was 32 years of age and the oldest was 79 years of age. Our respondents were on average 62 years old. Nearly half of the patients had bilateral transfemoral amputations, 21 in total. There were approximately 17 respondents with bilateral transcrural amputations. There were seven cases of combined amputations of the thigh and foreleg. The number of civilization diseases increases with increasing age. The number of amputations is also increasing due to their complications. Up to 73% of our respondents reported complications associated with civilization diseases, and 19 respondents (42%), complications associated with vascular diseases. An amputation was caused by complications of diabetes mellitus in 14 patients, representing 31% of all amputations. A traumatic cause was the third most common reason for amputation, specifically in seven probands (15.5). Complications associated with casus socialis caused amputations in four patients. The subjects suffered severe frostbite or extensive infected limb defects due to homelessness. The cause of amputation in one of our patients was congenital limb deformities, which are a rare cause of amputation. It was a case of congenital meningomyelocele with severe equinovaros deformities of the feet. The patient himself decided to have his forelegs amputated in order to improve his quality of life. Additionally, we can compare our results with those reported by Kálal [7, p. 43], who states that vascular diseases and traumatic conditions are the most common causes of amputations. There are thousands of amputations due to vascular causes each year. The number of amputations caused by traumatic causes is in the hundreds. Hudáková, Kuriplachová, Tkáčová, Bryndzová [6, p. 33]

mention disease of the locomotor system in up to 40.4% of the limiting diseases. It is also confirmed in our probands that amputation is the most significant cause of a decline in self-sufficiency in daily activities, as it impacts an individual's locomotor system fundamentallyapeutic education of self-sufficiency and complex rehabilitation treatment together with social counseling, we used the FIM score questionnaire method, which is used only rarely. FIM stands for Functional Independence Measure. This is a scale that detects self-sufficiency in the following areas: self-sufficiency (self-sufficiency, external care, bathing, dressing the upper half of the body, dressing the lower half of the body, hygiene), sphincters (urinary continence, stools), mobility (chair, bed, wheelchair, bathtub, shower, toilet), locomotion (walking/trolley, stairs) .Compared to other scales, this questionnaire is also extended to the area of communication (ability to understand, express) and social adaptability (social inclusion, problem solving, memory). Based on the testing, patients are classified into seven groups.

An individual with degree no. 1 is completely self-sufficient Neither self-sufficient nor independent. The degree of self-sufficiency increases with the degree of the scale. The grades 3-5 represent partial self-sufficiency. Some activities, however, require assistance, or only supervision. In grade 6, self-sufficiency is achieved with the assistance of compensatory aids. Grade No. 7 represents an individual who is fully self-sufficient. At the beginning of the treatment, she had an average FIM score of 4.8. Eight weeks later, her FIM score increased to 5.4. The Barthel index is the most commonly used in clinical practice. The Mini-Mental State Examination and the Montreal Cognitive Assessment [8, p. 34] were also used to measure the effectiveness of occupational therapy interventions for seniors with an average age of 68.4 years in social services. The control group showed statistically significant improvements in attention, executive function, and communication.

Conclusions

A bilateral amputation of the lower limbs is a significant event in a person's life. In addition to physically, but also psychologically. We are committed to helping bridge the period of this change and to improving the quality of life in all areas – individual, social, health, as well as emotional. We are able to accomplish all of this through social care and counseling. People are treated with respect in a confidential environment. By doing so, he will be able to take responsibility and actively participate in the process. Approaches rehabilitation actively, which includes social rehabilitation as well. Self-sufficiency therapeutic education can also be used for this purpose. Ultimately, all of these factors lead to the improvement of self-sufficiency in normal daily activities, which ultimately results in the ability to lead a full and independent life.

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The purpose: bilateral amputation of the lower limbs is a significant intervention in a person's life. It affects him physically as well as socially. Having changed living conditions, our task is to resocialize the individual.

Materials and methods. In our study, we explored the case of NRC Kováčová, diagnosed with bilateral amputation of the lower limbs. Between the beginning of 2017 and the end of 2021, they underwent an eight-week rehabilitation program. Retrospective data collection and analysis were conducted.

Results: As a result of complex treatment, patients are able to become more self-sufficient in normal daily activities. Reintegration is encouraged by improving self-sufficiency, to which social counseling also contributes.

Conclusions. We confirm the positive effects of social counseling and rehabilitation after bilateral amputation of the lower limbs in our paper. In addition, participating in group rehabilitation supports the socialization and reintegration of the individual, resulting in an improvement in quality of life for them.

Key words: lower limb amputation on both sides, self-sufficiency, social counseling, rehabilitation treatment.

Мета: двостороння ампутація нижніх кінцівок є значним втручанням у життя людини. Це впливає на неї як фізично, так і соціально. Змінивши умови життя, наше завдання – ресоціалізувати особистість.

Матеріали та методи. У нашому дослідженні ми вивчали випадок NRC Kováčová з діагнозом двостороння ампутація нижніх кінцівок. З початку 2017 року до кінця 2021 року вони пройшли восьмитижневу реабілітаційну програму. Було проведено ретроспективний збір та аналіз даних.

Результати. В результаті комплексного лікування пацієнти можуть стати більш самодостатніми у звичній повсякденній діяльності. Реінтеграція заохочується шляхом підвищення рівня самозабезпечення, чому також сприяє соціальне консультування.

Висновки. У нашій роботі ми підтверджуємо позитивний ефект соціального консультування та реабілітації після двосторонньої ампутації нижніх кінцівок. Крім того, участь у груповій реабілітації підтримує соціалізацію та реінтеграцію особи, що призводить до покращення якості її життя.

Ключові слова: ампутація нижньої кінцівки з двох сторін, самоокупність, соціальне консультування, реабілітаційне лікування.

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