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Význam pohybu v životě člověka s Parkinsonovým ochorením

The importance of movement in human life with Parkinson's disease

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Abstract

The contribution is focused on the issue of movement in human life, as its natural part. It specifically focuses on the use of movement and movement activities in patients with Parkinson's disease. It presents research studies from abroad focused on the use of dance as a non-pharmacological therapy in supporting the overall wellbeing of patients with Parkinson's disease.

Keywords: Movement. Dance. Parkinson's disease.

Introduction

The issue of movement and expression through movement has been topical for a long time in the helping professions in the local context. A person expresses their current mental state through movement, but their relationships with the environment are also reflected in the movement representation. Movement is a natural part of a person's life, their daily experience, even if it is limited due to health or other reasons. Movement is therefore an indivisible part of human life (Szabová, 2001). It can have different quality and meaning with respect to the conditions in which it takes place (Fábry Lucká, 2014).

Expression through movement can be understood in the biodromic context of human life. Hátlová et al. (2014) states that learning movement patterns takes place throughout the entire period of human development.

Movement is a creative space for a child's self-development, a basic and essential prerequisite for positive stimulation of development from early childhood (Mitašiková, 2020). From an early age, movement is a part of play, which is a safe way to establish contacts, engage in interactions and space for building relationships (Habalová, 2022).

In addition to play itself, which naturally has a multifactorial potential, the proximity of the person to relate to and the environment in which the play takes place are also important attributes (Habalová, 2010). Movement is a natural part of play, it is not only a matter of physical movement, but also of the overall awareness of one's own body in the context of the surrounding conditions in the

understanding of psychomotor skills. After the period of childhood, play develops and passes into other forms of interest activities, often connected again with physical activities. Such integration into a person's life has a direct impact on their experience on a psychosomatic level as well. A person creates in the play and at the same time the play becomes a part of their being (Mitašíková, 2023).

The term psychomotorics appeared for the first time already in the second half of the 19th century, when it was defined as part of psychology as a scientific discipline (Zimmer, 2019). In the current understanding, there has been a paradigm shift even in our conditions in the Slovak understanding, when the term psychomotorics includes the body in the context of one's own experience and bodily boundaries (Fábry Lucká, 2019). From a neurophysiological point of view, psychomotor skills are closely related to the maturation processes of the nervous system and targeted perceptual and movement stimuli (Panten, 2005). The share of movement in a person's somatopsychic state is relatively high during the entire period of a person's life, from birth to the period of senior age (Hátlová et al., 2014). Through one's own physical manifestations, a person builds their own self-image. It is actually a view of oneself that reflects the personality and the physical side (Hartl, Hartlová, 2009).

Experiencing one's own physicality is the basic pillar for building one's own identity. This experience makes it possible to understand the meaning of one's own existence, it provides space for the creation of one's own "I" and bodily boundaries. Hátlová et al. (2014) states that the perception of information through one's own body thus becomes a real object through which a person can confront their activity. Based on the above, movement in the understanding of psychomotorics is a lifelong human need, the fulfillment of which also contributes to a person's psychological experience.

As we have already mentioned, movement play is a part of a person's life from an early age to the period of senectitude. It has therapeutic potential even in the case of various diseases that affect physical and psychological wellbeing. In the following text, we will deal with the issue of patients with Parkinson's disease and targeted movement interventions, specifically with the use of dance as a therapeutic medium.

Dance as a complementary non-pharmacological therapy in patients with Parkinson's disease

The use of non-pharmacological approaches in the therapy of patients with Parkinson's disease is a long-term proven strategy in other countries, in combination with traditional pharmacological treatment.

For example, Haynes et al. (2023) investigated the use of dance and dance exercises in the context of the healthy aging model in the prevention of neurodegenerative diseases. Considering the problems that manifest themselves in people with Parkinson's disease, especially in the area of motor skills and walking, dancing or dance therapy is a long-proven approach.

Unfortunately, in our conditions, such a strategy of help is available only rarely, based on the equipment of a specific healthcare setting or organization. It is the possibility of self-expression that is key in movement-oriented therapy. The possibility of expressing one's emotions through artistic means can be a suitable way to overcome the difficulties associated with diseases in a person's older age (Kováčová, Hudecová, 2023).

Currently, in our conditions, a program focused on support for speech disorders in patients with Parkinson's disease is being implemented, where music therapy is the key approach. This program also includes movement activities that are adapted to the clientele of people with Parkinson's disease with a mild cognitive deficit and problems in the area of speech (both production and volume).

Given the fact that in this program we also use movement as a therapeutic medium, we processed a selection of research studies published in the last 4 years - in the years 2019 - 2023, which used movement and dance as a support medium specifically for problems in the area of mobility and motor skills. Studies were searched in PubMed, Scopus and Web of Sciences databases. The search keywords were dance, movement, quality of life. Based on this set of conditions, we identified 6 published research studies, which we discuss in more detail in the text below.

Bar et al. (2021) conducted a cross-sectional comparative study of 50 patients with Parkinson's disease aged 50-87 years, in addition to the effect on mobility, they also focused on their psychological experience and subjective perception of quality of life. In the conclusions, they stated that the positive influence of dance on overall mobility and subjective experience of one's own quality of life was proven. The limitations of the research were mainly the fact that since it is a degenerative disease, it is particularly problematic to apply standard methods of investigation, as the patients also had a problem with filling out the questionnaire - especially due to their physical limitations.

In their study focused on the use of dance in people with Parkinson's disease, Sundström and Jola (2021) focused not only on motor and psychological factors, but also on the experience of their life partners. Living with a person with Parkinson's disease and caring for them can cause a lot of emotional, psychological and financial pressures in the family environment. The dance program implemented in the research was completed by 6 couples, in each of which there was one person with Parkinson's disease. The results showed that dancing as a coordinated activity had a positive effect especially on improving the maintenance of overall body balance. The results in the emotional experience of both partners were also undeniable, especially the re-enjoyment of physical proximity without fear of harming the partner with Parkinson's disease.

In their study, Carapellotti et al. (2022) verified dance as a therapeutic approach with a direct effect on motor and non-motor manifestations, but also on the quality of life of a person with Parkinson's disease. The dance intervention was implemented as a 12-week program, inspired by the certified Dance for PD®

model. It was designed for a relatively small sample of 10 patients with Parkinson's disease who had demonstrable problems in the field of functional mobility, symptoms of depression and a negative self-image about their own quality of life. The data were compared in the form of a questionnaire, where significant differences were shown especially in the field of improving the perception of one's own quality of life. The implementation of the program did not affect functional mobility, not even in one case, it was more about maintaining the current physical condition, which is also perceived as beneficial in the case of a neurodegenerative disease.

Bek et al. (2020) in the conclusions of their research focused on the use of dance to support the motor skills and emotional state of people with Parkinson's disease also concluded that dance could improve motor planning and has a direct effect on psychological experience. This is the only one of the presented studies where a special space was also dedicated to rhythm and music in the context of the motivation of the research participants and the direct impact on the speed and accuracy of the performed movements.

In further research, Bek et al. (2022) also focused on the use of dance as a feasible non-pharmacological approach in people with Parkinson's disease. In their research study, they presented their own dance program that included motor stimulation combined with other expressive artistic means and focusing on the psychological experience of a person before, during and after the end of the program. So far, the research study has been conducted in a 6-week pilot sample, the research conclusions have been incorporated, and the research team has created a final program that is currently in the verification process.

Finally, Gyrling et al. (2021) focused on identifying the health benefits of using dance for people with Parkinson's disease. In the research carried out in Sweden, they understood the concept of health as consisting of three areas - physical, social and emotional experience. The results showed that positive changes were noted in all three areas, especially in the area of self-perception and self-esteem.

Conclusion

The issue of Parkinson's disease in the context of non-pharmacological approaches is still an understudied area in our conditions. The aim of our study was to focus on relevant research already carried out in this area during the last four years, and thus to confirm the effectiveness of already implemented programs linked to movement as a therapeutic medium. This was our second study dedicated to this issue, this time also focusing on the area of mobility, which is one of the areas most affected by the disease. An interesting finding from the described research was mainly a factor that turned out to be secondary - namely the social participation of a person with Parkinson's disease, who often voluntarily isolates from society as the disease progresses. Such avoidance of society can worsen the overall condition of a person with Parkinson's disease,

which is why a group form of a therapeutic program with expressive potential is a suitable form of intervention.

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