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INFLUENCE OF HEALTH CONDITION IN OLD AGE ON EDUCATIONAL ACTIVITIES OF SENIORS

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Abstract

This article reveals the impact of old age on senior education. It focuses on effects connected with old age influencing not only the educational process. Neither the health condition nor the mental condition should be omitted. This text also describes themes such as memory training, motivation of seniors to study, active ageing, and specifics of senior education. The aim of the article is to highlight the possible influence of the state of health in old age on the educational activities of seniors. The data used for this article had been collected within the survey that lasted three years, and the whole research project was called 'Educational Aspirations of Seniors'. The data collection method was used and 136 respondents between 62 and 86 years of age attending courses at the University of the Third Age in Hradec Králové participated.

Keywords: physical condition, mental condition, age, education, senior, education, life quality

VLIV ZDRAVÍ VE STÁŘÍ NA VZDĚLÁVACÍ AKTIVITY SENIORŮ

Abstrakt

Článek pojednává o vlivu stáří na vzdělávání seniorů. Zaměřuje se na vlivy, které s sebou stáří nejen do vzdělávacího procesu přináší. Pozornost je zaměřena jak na zdraví tělesné, tak duševní. Text se také věnuje tématům, jako je trénování paměti, motivace seniorů ke vzdělávání, aktivní stárnutí a obecně specifikům vzdělávání seniorů. Cílem textu je upozornit na možný vliv zdravotního stavu ve stáří na vzdělávací aktivity seniorů. Příspěvek je doplněn o data z výzkumného šetření, které bylo provedeno v rámci tříletého projektu specifického výzkumu „Vzdělávací aspirace seniorů“. Výzkum byl proveden pomocí dotazníkového šetření, kterého se zúčastnilo 136 respondentů ve věku od 62 do 86 let, kteří navštěvují Univerzitu třetího věku na Univerzitě Hradec Králové.

Klíčová slova: fyzické zdraví, duševní zdraví, stáří, vzdělávání, vzdělávání v seniorském věku, kvalita života

1. OLD AGE AND GETTING OLDER

Old age is understood to be the last stage of human development. This stage is specific for various involutional changes influenced by the health condition, the environment, or the lifestyle. According to research done by the Czech Statistical Office, the health condition of seniors is improving and so their lives are prolonging (Český statistický úřad, 2018). Moreover, ageing is an increasingly evident characteristic of a contemporary European, as it is pointed out, for example, by Kramkowska *et al.* (2019), therefore, it is advisable to draw sufficient attention to the chosen issue.

There are various possibilities for how to classify old age. The World Health Organisation classifies the age group of 60/65–74 as the youngest-old. These seniors want to be useful and helpful and to participate in social life. The middle-old group relates to seniors between 75–84/89 years old. At this age, they may become aware of such health problems, with which they need help from various health services. The person is getting weaker, and they need to rest during the day much more because even common activities require more energy than in their youth. People in the last age period are referred to as the oldest-old, and they are over 85/90 years old. These seniors at this age are not able to fully take care of themselves, and they need support from their close ones and various organisations. It is necessary to mention that the process of ageing is very individual, and its form can be different for each individual (Čevela, Kalvach & Čeledová, 2012).

The process of ageing can be described as a set of regressive changes of a different degree in various organs, as soon as the stage of sexual maturity has been reached. A gradual loss of strength, decline in physical performance and endurance, as well as a worse health condition may be observed. The process of ageing may look very different. Firstly, it relates to successful ageing, when the senior is mentally capable of adapting to a new situation, and their health condition enables them to engage in social events. They do not need much social and health support, but they mainly search for activities to help them with selfdevelopment. During the process of usual ageing, the imbalance between the senior's weakened health and mental condition and the demands of the social environment becomes significant. Due to this reason, the senior is not able to engage in activities which would satisfy them in this life period. Pathological ageing means that the senior's health condition, adaptation, and willingness to engage in social activities are much worse than in the case of other seniors being the same age. A gradual loss of strength is apparent, they do not want to meet people of the same age, and they lose the ability to look after themselves. Their condition is influenced not only by the common involutional changes and diseases but also by difficult life events or their features and attitudes (Čevela, Kalvach & Čeledová, 2012).

2. CHANGES RELATING TO SENIORITY

Our life is full of changes, and it is not different at the senior age. Klevetová (2017) points out that changes are part of biological and psychosocial pro-

cesses. Physiological changes can be described as biological ageing. These changes influence the body's organs and tissues. It is necessary to remark that all changes are individual as they are determined by genetic disposition and lifestyle. Particular systems in the body slow down, former functions weaken, and biological and adaptive mechanisms decline over time. In the case of the movement system, the body height decreases, the intervertebral discs flatten and dry out, and the bone mass also decreases. The fibrous tissues are less elastic, and the cartilage becomes hard, mainly in joints. There is an obvious decrease in muscle mass as well as a decrease in muscle strength. The speed of nerve impulses decreases which results in a worse control of muscle work. The movements of old people are slower, and the risk of fractures and other injuries increases. With the focus on the cardiopulmonary system, lung function becomes less efficient as the old person receives less oxygen from the environment due to smaller rib cage movements. At the same time, the vital lung capacity decreases. The heart pumps less blood, so the blood flow to other important organs decreases, which is most evident in the kidneys. Furthermore, the blood vessel wall becomes thinner, stiffer, and harder. Another significant change relates to reduced tissue elasticity, which is influenced by the amount of collagen changing during the process of ageing. The number of neurons decreases unevenly in the nervous system. Biochemical changes in neurons that affect excitation conduction are also an integral part of this. Regulatory mechanisms slow down in old age, reducing resistance to stress and the ability to adapt to new living conditions. The impaired perception of signals from the environment through the sensory organs is also part of ageing. Vision and hearing impair, and the ability to taste, smell and touch decreases (Klevetová, 2017).

Klevetová (2017) states that the changes taking place at the beginning of old age and during the ageing process are not only in the biological area, but they also relate to the senior's experience and behaviour and their position in society. It refers to psychosocial ageing. It is important to prepare for old age at a younger age, to give thoughts in different directions, and to know how to deal with leisure time. It is essential to realize what I have now, what needs to be taken care of, and what I really want. It follows that it is crucial to understand old age in its context of a bio-psycho-socio-spiritual perspective (cf. Zavázalová *et al.,* 2001; Křivohlavý, 2011; Čevela & Čeledová, 2014, etc.).

Medicine repeatedly underestimates the somatization of mental problems and tries to find the key in body organs without the context of psychosocial history. According to Giddens (2013), ageing people face a number of barriers which may be challenging to overcome. Entering retirement represents one of the barriers and a significant transition as the person loses the feeling of personal identity or status. Older people also need to overcome the loss of their loved ones, especially their love partners, which is another major life transition. Regarding social changes, Špatenková and Smékalová (2015) draw attention to the decreasing number of social contacts, which causes seniors to feel lonely and isolated. One of the main social contacts is, therefore, only the contact with the family.

However, as Błędowski (2012) points out, older generations are increasingly not focusing solely on issues related to the closest family, but it is the field of education that is reflected in the changing lifestyle of seniors as they become aware of issues related to self-care, health, how to maintain their skills or develop their interests.

3. HEALTH AND SALUTOGENESIS IN OLD AGE

It is evident from the previous chapter that there are significant changes connected with old age, being either biological or psychosocial. A person's health is constantly being tested, and it is not possible to generalise to which extent the changes will occur. As Slezáčková (2012) admits, mental discomfort may also affect health and the ageing process.

The WHO reports that the number of people over 60 is constantly increasing, and this trend will accelerate in the following decades (World Health Organisation, 2022a). Life expectancy increases, and this development has extensive economic, social, and political consequences.

Vos (2015) mentions that there is a higher proportion of people with non-fatal diagnoses within older age groups. The most frequent diagnoses are back pain, consequences of falls, serious depressive disorders, hearing impairment, diabetes, neck pain, migraine, osteoarthritis, chronic obstructive pulmonary disease, and anxiety disorders. Many of these diagnoses are psychosomatic, thus reflecting the way of life (stress, worries, dissatisfaction).

It is necessary to focus on physical activity and nutrition in old age, as they may have a great impact on the senior's health. As reported in the study by Costa, Rocha & Oloveira (2012), physical activity is one of the main factors in

improving the quality of life in old age, as well as health conditions and social contacts when adapted to the age group of the subject. The study also revealed the fact that older people who exercise regularly maintain a social life and are mentally active, have a greater chance to guarantee their independence and live life of good quality.

Physical activity has benefits throughout the whole life. As a result, the senior's physical and mental abilities may improve, anxiety and depression may occur less, and the risk of diabetes or stroke may be reduced. Another key factor is nutrition. In old age, there are physiological changes which may cause a diminished sense of taste and smell. Due to the poor condition of the oral cavity, the senior may face problems with chewing or tooth inflammation. Vision, hearing, and mobility impair, which makes shopping for food or preparing meals more challenging. Insufficient funds and psychosocial changes leading to loneliness affect nutrition as well. All the above-mentioned problems may cause malnutrition. Seniors need less energy, but they still need the same amount of nutrients as in previous years. Due to malnutrition, muscle and bone mass decreases, and the risk of frailty and other diseases increases. Therefore, it is necessary to focus on factors causing malnutrition, so that the senior's dependence on constant care may be postponed and geriatric frailty may be reversed (World Health Organisation, 2015, online). Appropriate eating habits may help to cope with stress or physical and mental performance. A better diet may also improve immunity or regenerative processes (Holmerová, 2014).

4. MENTAL HEALTH AND MENTAL ILLNESSES

Mental health has been discussed more and more in recent years, as it may influence the quality of life of each individual to a great extent.

The World Health Organisation defines mental health as 'a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community' (World Health Organisation, 2022b). Mental health is not only about the fact that a person does not suffer from any mental illness but also that meaningful fulfilment of one's own life possibilities is part of mental health (Národní ústav duševního zdraví, 2021).

American Psychological Association (APA) defines mental illness as 'any condition characterized by cognitive and emotional disturbances, abnormal

behaviours, impaired functioning (or any combination of these). Such disorders cannot be accounted for solely by environmental circumstances and may involve physiological, genetic, chemical, social, and other factors' (American Psychological Association, 2022). The number of specific diagnoses of mental illness is quite large. There are various classification systems which put them in order in a different way. International Classification of Diseases (10th revision) has been used in Europe (Národní ústav duševního zdraví, 2021).

It is obvious that satisfaction and mental well-being affect physical health to some extent. Bédiová and Rašticová (2018) point out that a positive mindset positively affects health and immunity and prevents disease. Satisfied people are also more likely to lead a healthy lifestyle (they do more sports, maintain a healthy body weight, etc.), which positively affects physical health.

5. SYNDROMES AND DISEASES OF OLDER AGE

Old age is also characterized by various syndromes and diseases. One of the most serious syndromes is frailty (or geriatric frailty). It affects mostly people who are over 80 years old. In this case, we may notice weight loss, impairment of functional ability, physical condition, and balance, which may lead to falls with subsequent fractures. At the same time, the senior may suffer from depression or cognitive impairment (Suchá & Holmerová, 2019). The causes of geriatric frailty can be divided into four categories – physical, mental, social, and spiritual causes. Physical causes include a weakened immune system or hormonal changes. Dementia or anxieties are classified as mental causes. Loss of a partner or lack of finances are examples of social causes, and loss of meaningful life as well as general resignation are assigned to spiritual causes (Čevela *et al.*, 2012). Apart from geriatric frailty, seniors may face hypomobility, instability with falls, or cognitive impairment. As seniors stop moving so much and their motivation to move decreases, hypomobility develops. Depression, anxiety, or tiredness also negatively affect this process. It is necessary to encourage seniors to move, although their muscular weakness may prevent them from doing so (Holmerová, 2014).

Diseases which seniors face vary. Chronic and degenerative diseases are the most frequent ones (Čevela & Čeledová, 2014). Multimorbidity is often associated with old age. Patients over 75 years of age usually suffer from one or more chronic diseases with symptoms not usual for the specific disease. There are a lot of factors which may cause the disease. At first, genetics plays

an important role, then unhealthy lifestyle, insufficient hydration, or financial and social problems. Mental conditions may not be omitted, as traumatic events in case of losing their partner or entering retirement have a great negative impact (Holmerová, 2014). It may be difficult to cure the diseases of the elderly as they have certain specifics. The seriousness of the diseases increases, more complications may occur, and it takes longer to improve the health condition. In the case of multimorbidity, the diseases may influence each other, or even combine with each other (Čevela, Kalvach & Čeledová, 2012). There may be many unpredictable complications, such as adverse drug reactions. In other cases, geriatric syndromes may develop, resulting in roundtheclock care of the patient (Čevela & Čeledová, 2014).

Patients often suffer from respiratory and urinary tract infections, flu, or depression. Other diseases typical for seniors are osteoporosis, Alzheimer's disease, or a cataract. Because of the high quality of medicine nowadays, the cure for heart failure, osteoporosis or femoral fractures is successful (Čevela, Kalvach & Čeledová, 2012). The research conducted by the authors Vaculíková and Vávrová (2019) suggests that for respondents over 70 years of age, old age is a period characterised by various diseases. Old age is also connected with wisdom and experience.

6. INFLUENCE OF HEALTH IN OLD AGE ON SENIOR EDUCATION

As it has already been told, health greatly influences the quality of life of each individual. The way we feel influences our experiencing, behaviour, attitudes, and emotions. The way we feel also influences our lifestyle and how we take care of our health. Pacovský and Heřmanová (1981) divide the theories of ageing into 3 groups, namely the theory of external influences (e.g. ecological conditions), the theory of internal influences (e.g. genetic programme), and the theory of impaired intelligence and organisation.

As Švandová and Ptáčková (in Ptáčková *et al.*, 2021) point out, quality of life is the basic premise of senior's psychosocial adaptation and its support. Haškovcová (2010) reveals that the senior's quality of life is not necessarily linked only to their health condition but is primarily an experiential category. However, as Švandová and Ptáčková (in Ptáčková *et al.*, 2021) further indicate, health is one of the main aspects of life as its long-term deterioration is often accompanied by a threat to self-sufficiency and the possibility of autonomy

and is also related to respect from the social environment and opportunities for meaningful activities.

In old age, a person may seek a new meaning of life or may want to broaden their horizons. In this case, they may use an educational offer in the field of their interest. Due to this fact, it is important that seniors take care of their health to be able to participate in educational activities designed especially for them. Their free time is actively used, and they may form new social contacts which may positively affect their health condition.

Educational activities for seniors help to support their dignity and satisfaction; they help them meet their social needs, become part of society and improve their quality of life. Educational activities also improve their mental and physical health, which is the main topic of this article. Senior education has preventive and anticipatory functions, we can understand it also as a form of rehabilitation or strengthening. Specific programs of lifelong learning are being used at the University of the Third Age (Průcha & Veteška, 2014).

Until this point, changes connected with body ageing have been described in this article. Now, the focus is on the same changes, but in the context of senior education.

Hartl (1999) remarks that during life, sensory functions weaken. The cognitive function impairs, but the human brain is able to learn until the end of life. Optimal use of the nervous system affects an individual's psychophysical performance. Visual performance decreases with age as well.

Špatenková and Smékalová (2015) describe physical changes in hearing performance when the ability to hear sounds of high frequencies slightly disappears, and some vowels may be difficult to recognise (mainly the vowels v, d, b), which leads to worse perception (it may be a barrier at lectures), and it may bring emotional problems. These limitations influence the quality of life in old age and senior education.

Psychological changes also influence education. Langmeier and Krejčířová (2006) point out that as the psychological process slows down, the memory and concentration worsen, and the fluid intelligence lowers. Other conditions influencing the education of seniors were found, and these are the sociocultural and anthropological influences (Wingchen 1995).

Špatenková and Smékalová (2015) report a decrease in the scope of concentration and ability to transfer and distribute it.

According to the Ministry of Labour and Social Affairs (online), a healthy lifestyle and disease prevention are basic prerequisites for improving the quality and prolongation of active life in old age. In this context, we often hear about the concept of 'active ageing' defined in the 1990s by the World Health Organisation, which aims to provide opportunities for health, participation, and protection of seniors, thereby improving the quality of life in old age (cf. Hasmanová Marhánková, 2010). However, this concept is now more commonly conceptualised as 'healthy ageing' as discussed in more detail by e.g. Vostrý *et al.* (2021), who draw attention to the fact that a lifelong approach and encouragement are vital for healthy ageing, in which several organisations can help.

7. METHODOLOGY OF THE SPECIFIC RESEARCH PROJECT EDUCATIONAL ASPIRATIONS OF CONTEMPORARY SENIORS

Not only health condition influences educational activities aimed at seniors. As part of our three-year specific research project entitled 'Educational Aspirations of Seniors' (2102/01260/1210), which aims to determine the educational aspirations of contemporary seniors, we also focused on the area of health in old age and its impact on seniors' participation in educational activities. We also concentrated on the form of these educational opportunities. During the three years of running our project, we first collected data using a quantitative method of a non-standardized questionnaire (in printed and online form) among seniors living in their homes, followed by a questionnaire survey (in printed and online form) among students of the University of the Third Age in Hradec Králové (hereinafter referred to as the U3V UHK), and in the last phase we conducted a qualitative survey among seniors and workers in a selected facility providing residential services for seniors.

However, for the purposes of this article, we used only part of our three-year survey research, namely a quantitative survey among seniors attending the U3V UHK. The data collection took place during the spring of 2022, and the data collected was mainly directed towards the educational offer and its evaluation, but we also wanted to find out information about our students, i.e., whether there were any specific requirements and needs which were necessary to be subsequently reflected as a result of their health condition. It can be said that our questionnaire served as an evaluation tool for organisers

and implementers of education activities from the U3V UHK. The survey was conducted by a quantitative method using a nonstandardized anonymous questionnaire (both in printed and electronic form) and was explicitly aimed at active students at the University of the Third Age in Hradec Králové. The questionnaire was distributed in 500 copies, but only 136 respondents completed it properly. At first, this low number surprised us and the implementers of the U3V UHK educational programme.

The respondents were in the 62-86 age group. There were 115 women and 21 men, and the highest level of education was secondary education with a diploma (52.9%). The aim of the questionnaire survey was to find out how the U3V UHK was evaluated by its attendees, and a sub-objective, being for us the aim of the exploratory survey intended for this article, was *to find out whether health condition had a decisive influence on the educational activities of the interviewed seniors*. Based on this, the hypothesis was set: *'Health condition in old age is the main determinant of participation in seniors' educational activities for more than half of the respondents'.*

8. RESULTS

First, we obtained basic information about the respondents (see above), including information about where they come from. Our respondents live in towns in most cases, which makes up 54.4% (74) of respondents. 19.9% (27) of respondents live in small towns, 17.6% (24) of respondents live in a village, and 8.1% (11) in a city.

We also asked which of the respondents had access to the internet in their place of living, as we found this important considering possible impaired mobility and general health condition of the individual. Online education could be beneficial for these reasons. It turned out that 97.1% of respondents had access to the internet, and the remaining 2.9% were without an internet connection.

With respect to the U3V UHK, we were interested in which forms of education students participate the most. The most frequent answer was that the respondents participated in the lecture series. 53.7% (73) of respondents gave this answer. Almost the same number of respondents participated in a one-year course – 36% (49) and a two-year programme/course – 34.6% (47). The respondents were least likely to attend online lectures. Only 1.5% (2) respondents gave this answer.

In the area of online education, we also asked about the devices owned by the respondents. Desktop computer or notebook is owned by 94.1% (128) of respondents, 73.5% (100) respondents own a smartphone, 27.2% (37) respondents own a tablet, and 2.9% (4) respondents stated that they do not own any of the devices mentioned above. Concerning the Covid-19 pandemic, we asked about the form of education of our respondents during this period, nevertheless, the results are used for different purposes and placed in a different context.

The survey showed that seniors are most often educated in institutions such as libraries, universities of the third age or various senior centres or clubs. 89% of respondents educate themselves, for example by using books, television, or the internet, and at the same time, almost 40% of respondents attend various courses, discussions, lectures, etc.

When choosing educational activities, the main decisive factor was the interest in the topics (83.8%), the second most frequently chosen option (32.4%) was co-participation with acquaintances, and for 28.7% of respondents educational availability was very important, followed by time availability (27.2% of respondents). For 21.3% of respondents, previous experience with the educational activity was also decisive, financial availability was a key factor for 14.7% of respondents, and 5.1% of respondents chose their own previous education and provider of educational activities as crucial. Health condition was important for 4.4% of respondents, while for 0.7% of respondents, it was the online form. Here we may discuss the role of health conditions. For some students of U3V, their health conditions are essential, but **it is not the most frequent factor influencing their further studies**. If we asked this question not only the U3V attendees, where we assume that their general health condition allows them to participate in classes, then the result would probably differ.

The most favourite topics among respondents were history (112 respondents), culture (94 respondents), geography (59 respondents) or psychology (50 respondents). In relation to this article, we may mention that 33 respondents chose topics such as healthy lifestyle and medicine (20 respondents).

The main advantage of studying at the university of the third age was, according to the respondents, acquiring new knowledge and information, followed by social contact with people of the same age, improving their memory, being addressed as ‘active retiree’, possibility to meaningfully use their free time, as well as the possibility of self-realization and increase their

self-confidence. Other advantages related to positive influence on physical condition.

Our questionnaire further focused on barriers to seniors' education. 85.3% of respondents stated that they did not see any barriers to their studies, 6.6% of respondents cited lack of free time as the barrier, 4.4% of respondents mentioned an unsatisfactory offer (dissatisfaction with the offer available) as the barrier as well as bad location, and a long distance from their place of residence, 3.7% of respondents described health condition as a possible barrier, whereas for 2.2% of respondents, it was lack of energy, and for 1.5% of respondents lack of financial resources. The remaining options, such as poor availability of information about the educational offer for seniors (e.g. no internet connection) and inappropriate or insufficient form of previous education, were chosen by only 0.7% of respondents. Not only once options such as negative reaction from the surroundings, or lack of motivation (fear of not managing the studies properly) were chosen. Regarding the option 'other', the students mentioned old age and lack of information about the day and time of lectures. Here we would like to emphasise that complete results conducted among the U3V UHK attendees were subsequently made available to implementers of the educational offer, thanks to which it could be gradually improved.

9. DISCUSSION

As we have learned from three years of research via the announced specific research project 'Educational Aspirations of Seniors', one of the aspirations is the improvement or maintenance of health condition, especially in the mental area, but in case of participation in physical activities, also the physical area may not be omitted. We may refer to the biopsychosocio-spiritual view of seniors again and stimulate all the mentioned areas via educational activities.

The results presented above represent only part of the results from one phase of our project and were obtained using a questionnaire method of data collection. The questionnaires were distributed in the amount of 500 pieces and were available to all students of the U3V UHK signed up in the academic year of 2021–2022, however, only 136 respondents completed it properly. This low number surprised us and implementers of the U3V UHK educational programme, as it was evident from the participants that they would like to influence the educational offer and would like to tell us what topics

they would be interested in, what they would improve, etc. Despite that, we are glad that about one-fifth of the students participated, so we could help implementers of the U3V UHK with feedback, which is very important. As it was the first academic year with regular lessons after the Covid break, we had greater expectations regarding the active involvement of seniors. During the Covid-19 pandemic, the number of lessons was limited, there were only online lessons, but informal feedback from seniors was very positive due to their health condition. Nevertheless, after the pandemic was over and the students were able to meet in person again, it was clear that they preferred lessons at the university, as their psychosocial needs could be fulfilled.

As we understand online education to be an appropriate provider of educational activities, we asked about the availability of an internet connection. Most respondents did not have any problems with it, so we were interested in the forms of educational offer they participated in most often. Lecture series were the most popular. They are held in the Auditorium of the Common Educational Facility UHK about once a month, and for seniors, it is not only about acquiring new knowledge but also about meeting their acquaintances, drinking coffee, being well dressed, etc. Online educational activities are not so popular, which reflects seniors' motivation to study. Online education was greatly welcomed in time of the pandemic, but there is no need to continue with it. Generally, the U3V UHK programme is attended by people without any serious health problems who can commute, move, etc. We are, therefore, fully aware of the limits we came across during the research. If the questionnaire was directed to the wider senior population, or at least to the U3V students within the country, it is very likely that the results would differ in many aspects, since, for example, online education has been a regular U3V programme for several years (e.g. the Virtual University of the Third Age at the Faculty of Economics and Management, Czech University of Life Sciences Prague). Online education may not only help people with health problems that prevent them from participating in lectures personally, but of course, it also brings the benefits of access to information from the comfort of their own homes, regardless of where they live.

As we see from our results, it is not exceptional to own a PC, laptop, tablet, or smartphone nowadays. Nevertheless, there are some seniors who do not own any of these devices. But seniors do not have to study only via such institutions as the U3V, libraries, senior centres, or clubs, they can self-educate themselves via books, discussions, or media.

Regarding the selection of educational activities, interest in topics, participation with acquaintances, but also educational accessibility are decisive. We could expect again that online education will be perceived positively and will be demanded as well, but it did not happen. In relation to the selection of educational activities, the respondents mentioned that their health condition is important. Health condition is for some U3V participants important, but it **is not the most frequent factor influencing their participation in further** studies. If we asked this question not only the participants of the U3V UHK, as we suppose that their general health condition allows them to participate in lessons, the results would probably differ.

Therefore, we may disprove our hypothesis *'Health condition in old age is for more than half of the respondents the main determinant of participation in seniors' educational activities*'. The hypothesis has not been proven to be true, as the main determinant of participation in educational activities is the interest in topics. At the same time, we may discuss the fulfilment of the stated objective of the empirical investigation for this article, i.e. it was found out that the health condition of some questioned seniors influences their educational activities the most, but this is true only for a fraction of them.

Participation in educational activities is mainly influenced by motivation. Motivation (mainly intrinsic motivation, which is driven by internal rewards) highly influences the senior when deciding whether to take up further study. Seniors have to decide on education voluntarily, and they choose the field of study themselves. Learning must be of great importance to the senior and must be associated with a positive experience in order to devote their time and energy to it. According to Beneš (2008), the educational motives for seniors are a desire for social contact, avoiding feelings of loneliness, striving for selfrealization in the awareness of one's own mortality, managing physical, psychological, and social changes, maintaining one's strength and mental activity, self-sufficiency, personal fulfilment, and desire to study the chosen field.

Motivation may have various forms. First, the senior's needs should be considered, as well as their interests. The difficulty of the tasks should correspond to their intellectual and performance skills. External conditions affect the process of education itself, in case of necessary cooperation vital for solving some tasks. The options mentioned above may be successful only if the lecturer is aware of these specific needs and personal qualities of the seniors. The lecturer may motivate the listeners either consciously, or unconsciously. Conscious motivation requires conditions prepared ahead, while

unconscious motivation is a result of interaction between the lecturer and the seniors (Veteška & Vacínová *et al.*, 2011).

Seniors may be motivated to study via the topics offered relating to their interests. The most popular topics among the respondents are history, culture, geography, psychology, and topics regarding healthy lifestyles or medicine. In relation to the U3V UHK, the respondents see their motivation in acquiring new information and knowledge, social contact with people of the same age, possibility of improving their memory. They enjoy being addressed as 'active retiree', and it is important to them to meaningfully spend their free time and to self-realize themselves. Another advantage is a positive influence on their physical condition (as part of the yearly educational offer, there is a course called 'Physical Activity as Part of Healthy Lifestyle').

However, seniors' health conditions may build a barrier the respondents notice. It does not necessarily have to be a bad physical condition or impaired mobility, there are cases when 'only' tiredness builds the barrier. Nevertheless, for most respondents (85.3%) there are no barriers to study. Therefore, we highlight the limits of our research which was focused only on a fraction of seniors. The questionnaire was completed by fewer respondents than we had expected, although we had been convinced that particularly the U3V attendees would participate, as they did not have any serious health problems which would prevent them from doing it.

Participants of another part of our specific research project who live in residential facilities have different experiences. We conducted a qualitative survey in the form of semistructured interviews among them during the winter months of 2023, but it is not the subject of this article. The influence of seniors' health condition on their education is, therefore, an area which provides us and our colleagues with a wide field for further research.

CONCLUSION

This article focused on the impact of old age on senior education. The aim was to describe the influence of physical and mental health on the educational activities of the seniors. Our health is influenced not only by genetic dispositions but also by our surroundings and lifestyle. Physical and mental changes are connected with various difficulties the seniors face. Health has a significant impact on the perceived quality of life. Educational activities help maintain the quality of life as they bring a lot of benefits and positively affect life.

These are for example self-realization, life satisfaction, or strengthening mental and physical health. Lifelong learning is meant to be available for everyone at each age. However, motivation is a key factor for further study, as well as health conditions to some extent. We are convinced that opportunities provided by the universities of third age belong to healthy ageing.

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