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## Issues of Senile Physical Activity and Safety

### Introduction

The social and demographic problems accompanying the ageing of the population require a closer attention to elderly people. The emergence of modern society gave birth to a new and dangerous health risk factor, the so-called sedentary lifestyle. Because of the rapid spread of inactivity, the public health care programs recognized the key role of sports and healthcare education, and also the protection and rehabilitation of the musculoskeletal.

The physical activity – like many other methods of maintaining health – is important for all age groups. However, the living conditions determining the rhythm of life are manifold. The interaction of the various laws, the working conditions, the organizations and the living environment are diverse. The attitudes may vary in different types of settlements, in families of different size and education. The challenges are quite different for people living in cities or for those in smaller settlements. The interpretation of lifestyle has changed a lot over the years, but the most common definition is: Lifestyle is a human action system designed to meet your needs.<sup>1</sup>

The maintenance of safety of the elderly is a crucial task for the society in all of its fields. Safety, in this sense, requires prevention, which includes a broad range of tasks.

It can refer to the prevention of the emergence of diseases and infections or to any arrangements and methods to prevent them spreading. There is primary, secondary and tertiary prevention. During primary prevention there is no damage to health yet

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<sup>1</sup> Bíróné, N.E. 2004. Sportpedagógia. Dialóg Campus Kiadó. 85.

and the purpose of prevention is achieved by determining the forms of activities and organizations.

In the secondary stage the individual does not experience any damage to his health, but the professional can realize the negative features. In this early period of detection to cure the lesion is relatively easy.

In the tertiary prevention phase the disease is developed. During this section prevention is trying to restore health as much as it possible by the means of rehabilitation. Among elderly people the second and third type is the most frequent.

In connection with this process, we quite often use the definition of correction. It means an intervention which aims to correct or terminate any disturbance, deficiency and abnormality during the process of self development. This is a programmable and an easy to plan part of the senior's active life. However, there are unforeseen damages among the risk factors which may arise from the elderly people's chronic illnesses or their advanced age. These factors should be taken into consideration when organizing events, competitions or journeys. For that very reason, new arrangements are also necessary for the safety of elderly people.

Among the preventive security measures the activity of the EU's Working Party on Accidents and Injuries can be high-lightened. It pays special attention to the safety of the Elder. They developed several accident-prevention programs, like the EUNESE (European Network for Safety among Elderly<sup>2</sup>). In Hungary, one of the main directions of the KINCS (Kormányzati Idősügyi Nemzeti Cselekvési Program- National Program For the Elderly) is to promote the emergence of a fine-quality and acceptable-standard aging.<sup>3</sup>

The number and the social importance of the elderly people are increasing, which means it is essential to provide them with an active life and with a chance for self-realization. A good health and a good-quality of life have become extremely important in the longer life span, since people wish to continue to live a healthy and wealthy life. Health is a supreme, and basic resource for people and society that can be relied on during the challenges of life. In order to improve the health of the elderly people the most important thing is to change the attitude both of the society and of the old generation. This changed attitude can support the view of considering elderly ages as an active and beneficial stage of life.<sup>4</sup>

The society should realize that aging does not mean defencelessness and dependence and this should be made understood by a wide range of people. Furthermore, elders should get to know the future opportunities for having a health-conscious and beneficial life.

To have active, working and happy elderly years in the best possible health is a common interest for both the individuals and the society.

Healthy and active lifestyle should play an important role in each stage of life.

<sup>2</sup> [http://www.hazipatika.com/doctors/hp/Dr\\_Benyi\\_Maria?id=248613](http://www.hazipatika.com/doctors/hp/Dr_Benyi_Maria?id=248613).

<sup>3</sup> Szalai, József: Az időskorúak biztonsága és az Európai Unió, <http://www.iokvat.hu/files/Az%20idoskoruak%20biztonsaga%20es%20az%20EU.pdf>.

<sup>4</sup> OGY határozat (2006): Egészség Évtizedének Nemzeti Programja. 4/2006.(II.8.) <http://www.oefi.hu/nepeuprg.pdf>. Retrieved July, 2010.

## The relationship between active lifestyle and health promotion

In this paper we do not analyze the diagnoses of gerontology, rather the preservation and security of life-quality. There are several studies worldwide about the relationship between physical training and health. The studies verify that exercises help reduce death rate and increase the average life-span and also prevent diseases.<sup>5</sup>

The regular physical activity, the training and the sport counterbalance the decline of the abilities of the organism and reduce the risk of the illnesses. They respectively help to achieve a better quality of life when an illness has already developed and also help to maintain a physical and intellectual efficiency for an independent lifestyle. However, it is necessary to take it into account that as years pass the organs are becoming handicapped and the physical strength and also the adaptability are decreasing which lead to the loss of human ties.

The long term regular body exercises are connected to the decreased risk of musculoskeletal and cardiovascular disorders. The sedentary lifestyle, which is inclined to be explained by aging, is proved to be amongst the causes. On the contrary it is also true that the sedentary lifestyle, the lack of body exercises can lead to the degradation of people's physical state or to the development of chronic diseases.<sup>6</sup> The most important substances of health, the regularly done body training, physical activity, body movements, sports are health-psychological protective factors.<sup>7</sup> We can achieve a good physical state by doing sports and physical activities and also by pursuing special games and competitions, which should not be underestimated. The regular physical activity has many favourable physiological and psychological effects.<sup>8</sup>

There is no health without regular exercises. The sporting habits are much to tell you about the status of a country, the lifestyle of the population and their health.<sup>9</sup> The exercises, sports and games make the elderly people more active.

Playing can provide the Elderly with new experiences, promote development and makes them more open to social contacts. Physical and mental activities are important elements in maintaining health, physiological and psychological well-being, and the quality of life. A cheerful, relaxed gathering in a safe, supportive environment helps relieving stress. Discovering previously unused abilities, mobilizing creativity and imagination increase self-esteem, stability and light-heartedness, and thus can be a major component in maintaining health. The reason behind bad state of health is mainly the lack of physical activity. The human body needs physical activity to pre-

<sup>5</sup> Apor, Péter. 2005. Idősek testmozgása. In: Némethné Jankovics, Györgyi (ed). *Aktivitás – mozgás – sport a harmadik életszakaszban*. Győr. *Szenior Könyvek*. 19–26. Gabler, Tamás and Kovács, Viktória Anna. 2005. A rendszeres testedzés egészségmegőrző szerepe. *Családorvosi Fórum* 1. 46–49. Gauchard, G.C., Jeandel, C., Perrin P.P. 2001. Physical and sporting activities improve vestibular afferent usage and balance in elderly human subjects. *Gerontology* 47. 263–270.

<sup>6</sup> Vouri, I. 2004. Physical activity as a disease risk and health benefits of increased physical activity. In Pekka Oja and Jan Borms (Eds.) *Perspectives. The multidisciplinary series of physical education and sport science. Meyer and Meyer Sport*, Berlin 29–96.

<sup>7</sup> Kopp, Mária. 1999. A magatartásorvoslás helye és jelentősége az orvostudomány területén. *Orvosi Hetilap*, 5. 227–234.

<sup>8</sup> Brukner, P.D. and Brown, W.J. 2005. Is exercise good for you? *Medical Journal of Australia*, 183. 10. 538–541.

<sup>9</sup> Nyerges, Mihály and Laki, László. 2004. A fiatalok sportolási szokásainak néhány társadalmi összefüggése. *Magyar Sporttudományi Szemle*, 2–3. 5–16.

serve health and to be able to reinvigorate every day.<sup>10</sup> The most widespread and recommended form of physical activity for the Aged is walking. A short physical activity with mild intensity, a 30-minute walk 4–5 times a week can have a positive effect. Even this moderate activity improves health and the quality of life.<sup>11</sup>

Health behaviour, like sport and physical activity, is influenced by several factors,<sup>12</sup> which mainly depend on, aside from personal attitude, lifestyle, health, motivation, the sociocultural environment and the financial conditions of the families.<sup>13</sup>

Professionals of the field agree on the assertion that a certain level of physical condition is a main component of health. Physical activity can contribute to the prevention of certain types of diseases-of-civilization – hypertonia, atherosclerosis, cardiovascular diseases, obesity, specific types of cancers, and spinal diseases. Incorporating physical activity in our lifestyle is the foundation for longevity and for improving the quality of life.<sup>14</sup> In all age groups, but most prominently in the elderly, increased attention should be turned to the preservation of physical and mental balance. In doing so, one of the most important aspects in the elderly population is the quality, intensity, and preservation of activity and mobility. The phrase “active elderly life” can be used when an aged person can live with full potential, taking into account their individual abilities and conditions of living. The most important task is to support a healthy and active elderly period. Good health has an effect on the quality of life: the longer we stay healthy, the bigger our chance is to maintain our individuality, independence and activity.<sup>15</sup> Physical activity, together with social and mental activity, helps us with the struggle to preserve physical, mental and spiritual well being.

## Providing the older generation with a quality and healthy lifestyle

If we think about health, physical activity and quality of life, and their effect on one another, we have to take the importance of the quality of life (QOL) into consideration. Today, the quality of life is a commonly used phrase in both the general language and the medical and physiological terminology. The word was first used by scientists as criticism for the unsustainability of economic development,<sup>16</sup> but it still lacks a commonly accepted definition today.

Lennart Nordefelt, the Swedish scientist who was trying to elaborate the connections of health and quality of life, came to the conclusion that the quality of life equals health itself, and in an everyday sense, it can be defined as general satisfaction or dis-

<sup>10</sup> Mood, D., Muskler, F.F. and Rink, E.J. 1995. Sport and recreational activities. WCB, McGraw-Hill, Boston

<sup>11</sup> Sidó, Zoltán and Szamosi, Katalin. 2005. Az időskor és a sport, *Hippocrates*, 5. 299–301.

<sup>12</sup> Keresztes, Noémi and Pikó, Bettina. 2006. A dél-alföldi régió ifjúságának fizikai aktivitását meghatározó szociodemográfiai változók. *Magyar Sporttudományi Szemle*, 1. 7–12.

<sup>13</sup> Nyerges, Mihály and Laki, László. 2004. A fiatalok sportolási szokásainak néhány társadalmi összefüggése. *Magyar Sporttudományi Szemle*, 2–3. 5–16.

<sup>14</sup> Hebbelinc, M. 1993. Egészséges életmód, fizikai fittség, betegségmegelőzés. II. *Országos Sporttudományos Kongresszus*. Bp. 17–33.

<sup>15</sup> [http://ec.europa.eu/health-eu/my\\_health/elderly/index\\_hu.htm](http://ec.europa.eu/health-eu/my_health/elderly/index_hu.htm)

<sup>16</sup> Kovács, József. 2006. Életminőség a bioetika nézőpontjából: elméleti problémák. In: Kopp, Mária and Kovács, Mónika Erika. 2006. A magyar népesség életminősége az ezredfordulón. Budapest. *Semmelweis Kiadó*. 20–24.

satisfaction with life itself. Quality of life, as well as health, is a multidimensional, complex term – and it is viewed from a bio-psycho-social approach,<sup>17</sup> and for that reason the researches on life style arise from 3 separate fields of sciences. Sociology, psychology, and health sciences are all included in the studies concerning the well-being of the population.

In the field of Health Sciences, studies on the quality of life approach the topic based on health-related criteria (Health Related Quality of Life, HRQL).<sup>18</sup> HRQL, on the one hand, examines how an actual person rates his own life (activities and management of life), in other words what is the subjective opinion about his own health condition. A further definition of the quality of life states that QOL is a sum of certain physical and psychological factors which define how much potential the individual feels, and how much joy that individual can get from activities and life.<sup>19</sup>

This study intends to look at the health-related quality of life, without taking several, basic factors of the quality of life (financial status, status in the social hierarchy, general social environment) into account and by doing so, the focus can be turned to specific factors that are in close correlation with health. In this view, the indices of QOL provide information on general welfare (physical and mental health, social welfare). These figures are shown in the following table.

Table 1 Indices of HRQL

Dimensions of quality of life	Indices of quality of life	
Physical welfare	Ability to accomplish your daily tasks	subjective health self-evaluation including the value-mediating effect of the social environment
Emotional and mental welfare	Sense of security, peace and happiness; The lack of them: depression, anxiety, fear	
Social welfare	Correspond to the daily challenges, stay in contact with family members, relatives and friends, Integration to the narrow or wider social environment	

(Author's edition based on the work of Susánszky and co. (2006))

Besides health promotion, mental freshness is of extreme importance, as well. As years pass the physical strength and the health are more and more felt to be decrease, the functional organs slow down and therefore the quality of life is getting worse.<sup>20</sup>

<sup>17</sup> Kopp, Mária. 2006. A lelkiállapot és az egészség összefüggései In. Megelőző orvostan és népegészségtan. Ádány, Róza. (ed) Budapest. *Medicina Könyvkiadó Zrt.* 516–522.

<sup>18</sup> Susánszky, Éva, Konkoly Thege, Barna, Stauder, Adrienn, Kopp, M. 2006. A WHO-jóllét kérdőív rövidített (WBI-5) magyar változatának validálása a Hungarostudy 2002 országos lakossági egészségfelmérés alapján. *Mentálhigiénié és Pszichoszomatika*, 7 (3). 247–255.

<sup>19</sup> Kopp, Mária and Pikó, Bettina. 2006. Az egészséggel kapcsolatos életminőség pszichológiai, szociológiai és kulturális dimenziói In. Kopp, Mária and Kovács, Mónika Erika. 2006. A magyar népesség életminősége az ezredfordulón. Budapest *Semmelweis Kiadó.* 10.17.

<sup>20</sup> Majercsik, Eszter. 2008. Életminőség és közérzet az élet alkonyán. *Magyar Családorvosok Lapja*, 7. 6–10.

To sum up, the most important factors of the elderly people's quality of life are the physical and psychic state of health and their effect on everyday actions, to have something to live for, the feeling of usefulness, the proper activity, taking part in social life, social relationships, to be supported, inside and outside harmony, adaptability, positive and negative events.<sup>21</sup>

Successful ageing depends on both the physical activity and the health of the psychic. In order to stay an active member of the society, it is important for elders to slow down the process of early ageing by the means of active lifestyle.<sup>22</sup> To achieve these aims, complex programs and action plans are needed. Professionals should learn to motivate people and teach them a behaviour to create proper lifestyle in order to experience active ageing.<sup>23</sup>

## The principles of safe exercises

Before we recite a few supporting factors of the activity of elders, we have to mention the communication expected from professionals caring for the Elderly (like trainers, mediators, organizer, physiotherapists, friends, family members), and especially the "assertiveness".<sup>24</sup>

"Assertiveness" means an honest and socially accepted way to give expression to ideas, thoughts, feelings and beliefs without any violation of the Law<sup>25</sup>. The answer samples of assertiveness have four components: an ability to ask someone a favour, an ability to express positive or negative feelings, an ability to refuse something, and finally the ability to start, continue and close a conversation.<sup>26</sup>

People may have problems with assertiveness because of several reasons. Some of them include

- social conclusions (for example you are afraid to say something because you are worried about other people's opinion or are afraid to hurt others)
- lack of awareness (for example nobody has ever taught you how to be assertive)
- lack of self-confidence (for example the effects of social patterns and cultural differences)
- vulnerability (for example to get to know the self may have negative effects).

Assertiveness is a learned behaviour which needs frequent practicing to become perfect. It is impossible to learn any effective interpersonal skill, such as assertiveness in one single season. A more comprehensive approach is needed which includes skills of different cognitive-behavioural mental trainings, like setting up goals, struggling techniques, self-talk and self-monitoring. In our opinion, each member of a community, including sportsmen, should learn a tactful and considerate way to give expression to their ideas, thoughts, feelings and preferences.

<sup>21</sup> Tróznai, Tibor and Kullmann, Lajos. 2007. Az idős emberek életminőségének és idősődéssel kapcsolatos attitűdjeinek vizsgálata *LAM* 17, 2:137-143.

<sup>22</sup> Plette, Richárd and Grónai, Éva. 2006. A lelki egészség kérdései Magyarországon. *Foglalkozás-egészségügy*, 1. 24-33.

<sup>23</sup> Majercsik, Eszter. 2004. Idősek a mában. <http://phd.om.hu/disszertációk/értekezések>. Retrieved June, 2010.

<sup>24</sup> Kokovay, Ágnes. 2011. Kommunikációs forradalom a sport világában. Nyíregyháza. Manuscript.

<sup>25</sup> Connalley, D. & Rotella, R. J. 1991. The social psychology of assertive communication: Issues in teaching assertiveness skills to athletes. *The Sport Psychologist*, 5, 73-87.

<sup>26</sup> Lasarus, A. A. 1973. On assertive behavior: A brief note. *Behavior Therapy*, 4, 697-699.

## Suggested methods for the safe activity of the Elderly

The time spent on conditioning may vary between 15 and 60 minutes. The period depends on the intensity of the exercises. A longer period of exercises is suggested with a less intensified, and a shorter period with a more intensified activity.<sup>27</sup>

The training plan should meet the following requirements:

- **Availability** in both a geographical and a financial sense. The subject should be able to do the exercises regularly at home (on a fitness cycle) or near his home but also should be able to afford it. Exercising at home is more accepted for this latter reason as well since sporting facilities for the Elderly are not yet commonly organized.
- **Progressiveness** is a very important principle at the introduction of exercises, at the frequency of exercises and at the combination of them. It is important to start the training with exercises that elderly people can do and progress training by increasing the number of practice and intensifying them.
- **Safety.** Planning a training program should pay attention to the age, sex, physical ability, the limiting factors of the age and also the prehistory of the clients, whether they led an active or a sedentary lifestyle before.
- **Effectiveness.** Even a quite low-intensity but frequent training may have a positive effect on the bony substance, on the carbohydrate metabolism, on the reduction of obesity or on the risk factors of coronary diseases especially when the elderly client has led a sedentary lifestyle before.
- **The elderly person should enjoy exercises.** Dynamic exercises moving great muscle groups are mostly suggested, such as walking, hiking, jogging, running, rowing, swimming or biking, etc.<sup>28</sup>

This study could not undertake to discuss all possible aspects of the topic. It attempted to illustrate that sport and training can serve an excellent means of slowing down the process of aging and of improving the quality of lifestyle. The preservation of the physical and mental health at an old age may be crucial for the prevention of declining abilities, for delaying the ageing process, and for a safe elderly life.<sup>29</sup> The frequent physical activity, even in an old age, is an important tool for the strengthening of the physical condition and for the bettering of the quality of life. However, it should be planned in a safely performable way.<sup>30</sup> The frequently done exercises and training help preserve and improve health and personality and also contributes to the maintenance of interpersonal relations of the younger, the middle-aged and the elderly generations<sup>31</sup>.

<sup>27</sup> [http://www.sportorvos.hu/aktiv\\_idoskoruak/20090416/a\\_mozgas\\_idotartama](http://www.sportorvos.hu/aktiv_idoskoruak/20090416/a_mozgas_idotartama).

<sup>28</sup> [http://www.sportorvos.hu/aktiv\\_idoskoruak/20090416/a\\_biztonsagos\\_testmozgas\\_alapelvei](http://www.sportorvos.hu/aktiv_idoskoruak/20090416/a_biztonsagos_testmozgas_alapelvei).

<sup>29</sup> Földesiné Szabó Gyöngyi (1999): Idős magyar nők életstílusa és a sport. Sporttudomány, 2. 3-7; Jákó Péter (2005): Gyógyító testedzés. In: Némethné Jankovics Györgyi (Szerk.) Aktivitás – mozgás – sport a harmadik életszakaszban. Szenior Könyvek, Győr. 27-36. Katona Viktória (2003): Érezzük jól magunkat időskorban Szenior Könyvek, Győr.

<sup>30</sup> Földesiné Szabó Gyöngyi (2005): Az idősek- és különösen az idős nők- testedzéséről külföldi és hazai szociológiai vizsgálatok tükrében In: Némethné Jankovics Györgyi (Szerk.): Aktivitás – mozgás – sport a harmadik életszakaszban. Szenior Könyvek, Győr. 37-52. McDermott A.Y., Mernitz H. (2006): Exercise and Older Patients: Prescribing Guidelines. American Family Physician, 74. 3. 437-444.

<sup>31</sup> Sato, T., Demura, S., Murase, T. and Kobayashi, Y. 2005. Quantification of relationship between health status and physical fitness in middle-aged and elderly males and females. Journal of Sports Medicine and Physical Fitness 45. 4. 561-569.