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**THE CONCEPT OF HEALTHY AGEING AS AN  
OPPORTUNITY FOR THE FITNESS SECTOR**

Master thesis

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This Master thesis has been compiled independently. All works by other authors used while compiling the thesis as well as principles and data from literary and other sources have been referred to.

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## INTRODUCTION

The world's population is ageing, i.e. the proportion of elderly people is growing. Based on different estimations, the number of elderly people may exceed one billion people in 2020, corresponding to approximately 30% of the whole population (Drop, Jedrych, Baranska, Firlej, & Janiszewska, 2016). This phenomenon is leading to changes in economic, social and political levels, which require several intervention measures in order to face this new situation. For example, ageing population puts pressure on healthcare systems by increasing the need for various services in connection with diseases and inabilities associated with old age (*Ibid.*, 2016; Oxley, 2009).

People live longer and therefore it is crucial to maintain healthy lifestyle for as long as possible in order to play an active role in the society and the labour market and, most importantly, to keep the quality of life as high as possible and for as long as possible (Fereshtehnejad & Lökk, 2014). Healthy lifestyle (e.g. physical activity, proper nutrition, good sleep, stress avoidance) has a considerable impact on people's health and on the ability to maintain good health throughout the whole life cycle (Kasmel & Lipand, 2007; Oxley, 2009). Ageing healthily may be the one opportunity for people and societies to cope with the changes and to maintain or even raise the quality of life of elderly people. For this reason, the author of the thesis considers it important to find opportunities for keeping the population in a good health condition until the highest possible age. The author of the thesis focuses on physical activity and exercising as one of the factors of the process of healthy ageing in this paper. According to this assumption, the author explores which role the fitness sector may perform in the context of healthy ageing and which future perspectives the fitness sector may have in this field.

The goal of the master thesis is to investigate the concept of healthy ageing with an emphasis on physical activity, and to find out how this concept could be applied as an

opportunity for the fitness sector to target more elderly people in the future. For this reason, the master thesis aims to:

1. Explore the definition and understandings of the concept of healthy ageing and clarify relevant terminology, e.g. active ageing, successful ageing.
2. Determine the role of physical activity in the context of healthy ageing.
3. Analyse the importance of health promotion and the role of the fitness sector in the context of healthy ageing.
4. Make recommendations to the fitness sector for applying the concept of healthy ageing as part of its strategies and mainly in the service design process.

The paper concentrates on topics such as the concept of healthy ageing and the role of physical activity, health promotion and fitness sector in the context of healthy ageing. The author assumes that as a result of a critical literature review and research study it will be possible to make recommendations to the fitness sector for considering the concept of healthy ageing as an opportunity for the service design process by targeting and engaging more elderly people. In order to achieve the goal of the thesis, the following research questions have been formulated:

1. How could the concept of healthy ageing be applied in the fitness sector in order to design and provide special services for elderly people?
2. What could be the mechanisms (actions, tools, etc.) that would motivate elderly people to be physically more active and exercise in the fitness sector?
3. Whether and what kind of resources the fitness sector needs to design and provide special services for elderly people?

To achieve the goal of the thesis, the following research tasks have been set:

1. Critical literature review to analyse the specification of the term of healthy ageing, as well as examine the role of physical activity in the context of healthy ageing and argue about the role of health promotion and the fitness sector in the context of healthy ageing.
2. Preparation and conduct of research by implementing a Delphi method.
3. Data analysis and the presentation of study results.
4. Discussion of the study results with recommendations for applying the concept of healthy ageing in the fitness sector.

The master thesis is composed of introduction, three chapters, a conclusion, a list of references, appendices and a summary in Estonian. The first part of the thesis provides a theoretical framework of the concept of healthy ageing based on the thematic literature review. The subchapters are focused on explaining the concept healthy ageing, as well as the role of physical activity, health promotion and fitness sector in the context of healthy ageing. The second chapter introduces the research method – the Delphi study was applied for data collection and analysis – and presents the process of data analysis. Fitness sector professionals (fitness club managers, fitness instructors, personal trainers) from Estonia, Sweden, Denmark and Hungary were engaged as participants in the Delphi group. In addition, the author of the thesis presents the comparative opinions of the experts of the healthcare sector (physical therapists, project Senior Gym), but points out that this is not considered as part of the research in this paper. The third chapter presents the findings of the Delphi study and the author`s recommendations about the opportunities as to how the concept of healthy ageing may offer possibilities for the fitness sector to diversify their range of fitness services. Finally, the conclusive part provides an overview of the research and gives further suggestions.

# **1. LITERATURE REVIEW**

## **1.1. The specification of the definition of healthy ageing**

The percentage of elderly people is growing because of decreasing birth rates and increasing life expectancy. It has been emphasised that this trend changes the situation of labour markets and affects social security and healthcare systems (Drop et al., 2016). As retirement age has begun to rise in many countries, people have to be more active in the labour market for a longer time. This, in turn, requires good physical, social and mental health in order to manage in the labour market and in the society in general. Due to the fact that the population is ageing and people live longer, societies face the challenge of how to change and postpone the ageing process to maintain good health and vitality until the highest possible age. Therefore, the idea of healthy ageing has become a popular term in various contexts.

In order to understand the concept of healthy ageing, it is necessary to determine what kind of understandings the definition of healthy ageing encompasses. It is important to mention that there are several similar terms in use, both in academic literature and in other publications (e.g. active ageing, successful ageing, etc.). Due to the fact that there are various terms in use in relation to healthy ageing, the author compares the content of different terms and explains why the term “healthy ageing” is preferred in this paper.

First, in advance of defining healthy ageing, the author discusses approaches to the term “health” and how the ageing process is related to a person`s health. According to the definition of the World Health Organization from 1948 (Callahan, 1973), “health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”, which could probably be considered the best known definition of health. In 1984, the World Health Organization (1986) renewed the understanding about health in the context of health promotion as “health is, therefore, seen as a resource of

everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities” (p. 1). However, the definition of health given by the World Health Organization is found outdated by several studies (Card, 2017; Charlier et al., 2017; Sartorius, 2006). Charlier et al. (2017) outline that the definition of the World Health Organization is unsuitable for describing the health condition of a large part of the population in different areas in the world, by bringing in new dimensions of health such as environmental equilibrium, spirituality, adaptation. Sartorius (2006) suggests that health could be defined taking into consideration the following three aspects:

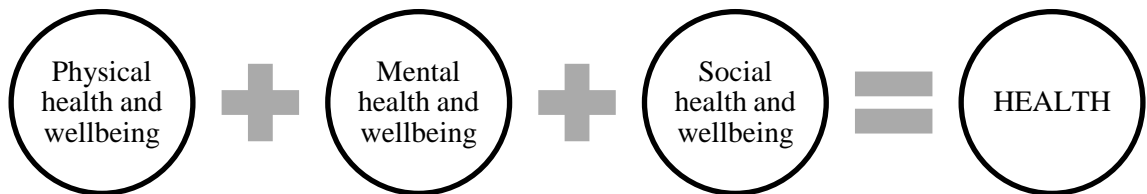
- 1) absences of diseases and disabilities,
- 2) condition that allows a person cope with daily life,
- 3) state of inner and outer balance of a person.

According to Card (2017), the definition given by the World Health Organization does not provide an understanding of health, especially when taking into consideration ageing populations, and a new notion of health is proposed as follows: “Health is the experience of physical and psychological well-being. Good health and poor health do not occur as a dichotomy, but as a continuum. The absence of disease or disability is neither sufficient nor necessary to produce a state of good health” (p. 131).

It seems that the definition of health is becoming more related to a person`s overall wellbeing, not only the absence of diseases and disabilities. Therefore, one option is to associate a good health condition with a person`s wellbeing and wellness. Being inspired by the definition of health, Dunn (1959) was the first to define wellness as a lifestyle method to achieve a state of physical and psychological wellbeing. When it comes to a person`s health condition, it could be claimed that wellness, as a proactive and preventative process, is closely linked to a person`s lifestyle choices and therefore with the quality of life in general. At the same time, lifestyle choices (e.g. nutrition, physical activity, sleeping habits, etc.) can influence a person`s condition of health and could be affected by social norms that dominate in society (Kasmel & Lipand, 2007).

However, various approaches of health could be defined and it seems to depend on the context of study. Kasmel and Lipand (2007) point out that in addition, the concept of health could be described from different aspects, such as biomedical, research-based,

economic, political, cultural, holistic, etc. The term of health has definitely many dimensions. It could be claimed that there are various options for interpreting the essence of health depending on the context. Based on various terms and definitions, the author of this paper presents the approach to the term of health as follows (see Figure 1.):



**Figure 1.** The concept of health (compiled by the author)

With regard to the term “healthy ageing”, the author of the thesis considers health as a person`s state of physical, mental and social health and wellbeing as the basis of being and staying healthy.

Furthermore, to explain the concept of healthy ageing, it is obligatory to define the ageing process as well. Ageing is an inevitable process that starts from birth. It is impossible to avoid ageing, but it is possible to contribute to staying healthy and prevent diseases. Ageing is influenced by a person`s risk of illness and illness could stimulate the ageing process as well. Lifestyle, illness/health disorders and the ageing process are tightly related. Ageing is a process of growing old and getting old is often related to having a disease and losing the ability to cope with daily life. According to Kusumastuti et al. (2016), “ageing is accompanied by an increased risk of disease and a loss of functioning on several bodily and mental domains and some argue that maintaining health and functioning is essential for a successful old age” (p. 4).

In general, the reasons and ways of ageing are still quite enigmatic and unexplained and ageing itself cannot be consider as a disease; however, there are several disorders that may occur rather in older age than among younger people (Blackwell, 2007; Santonja & Lombao, 2011). The easiest approach is to bring out the physiological symptoms of ageing, which could be kept under control or changed by the person itself: dehydration, ageing of the nervous system, rarefaction of bones, ageing of cartilage, decrease of fat-

free muscle mass, ageing of the heart and the cardiovascular system (Santonja & Lombao, 2011).

According to the Survey of Health, Ageing and Retirement in Europe (SHARE), age 50 is considered to be the start of old age (Börsch-Supan et al., 2013). The Survey of Health, Ageing and Retirement in Europe (<http://www.share-project.org/>) covers 27 European countries and Israel, and it is a multidisciplinary panel database of micro data on health, socio-economic status, as well as social and family networks of individuals aged 50 years and above. Also, King and King (2010) define older adults as people over 50 years of age.

On the other hand, Zizza, Ellison and Wernette (2009) declare that old age starts at 65 and divide old people to three groups: 65–74-year-olds as the young-old (person is still able to work), 75–84-year-olds as the middle-old (symptoms of ageing are seen more clearly) and people over 85 years of age as the oldest-old (many people need help in everyday life); age 50 is placed into the age group of 45–64-year-olds, i.e. the middle-aged. Blackwell (2007) states that age-related disorders and diseases (e.g. cancers, cardiovascular diseases, autoimmune diseases) occur more often among people over 45 years of age.

It is essential to mention that age, too, could be distinguished in different ways (Saks, 2016; Santonja & Lombao, 2011), e.g. chronological age (life years), biological age (age of person`s organism and organs), functional age (person`s capability to maintain physical, mental and social activity). In addition, Saks (2016) mentions that functional age combines person`s biological age with psychological age (person`s self assessment of his/her age) and social age (social norms and expectations concerning age). Similarly to the term “health”, which has various interpretations, it is arguable from which age the person could be considered as old or older and again, it seems to depend on the particular context, study, etc. It could be assumed that as defining the terms of “health” and “ageing” depends on the context, defining the term of “healthy ageing” may pose a challenge as well.

While emphasising health and staying healthy while getting older, the term of “healthy life years” may be taken into consideration. Healthy Life Years (HLY) is one of the

mechanisms that measures expected remaining healthy life years without a disability (Trzpiot & Orwat-Acedanska, 2016). EUROSTAT (2015) defines healthy life years as “the number of the years that a person is expected to continue to live in a healthy condition” and states that the number of healthy life years was estimated at 61.4 years for men and 61.8 years for women in the European Union according to the statistics concluded in 2014.

There is no certain understanding and consensus regarding the term “healthy ageing” in literature and different studies. Various terms related to healthy ageing are in use. Different terms are provided in academic literature and in policy documents, for example. The author of this paper promotes various terms that are used in the academic literature and explains why the term “healthy ageing” is preferred in this paper.

According to Fries (2012), the definition of healthy ageing “includes the notion of improving each of physical health, mental health, and social health” (p. 1). This term is directly related to the notion of “health”, which was proposed by the author of this paper (see Figure 1.). Further on, Hamer, Lavoie and Bacon (2014, p. 240) consider that healthy ageing could mean that a person:

- 1) is free from major chronic disease,
- 2) has no major impairment of cognitive function,
- 3) has no major limitation of physical functions,
- 4) has good mental health.

It could be claimed that similarly to the term “health”, the term “healthy ageing” is used mainly in connection with a person`s physical, mental and social health. One option is to characterise healthy ageing as a holistic process in which people attempt to maintain or reach a good health condition until the highest possible age while getting old, i.e. living without disabilities and diseases as long as possible during a person`s life span while maintaining physical, mental and social wellbeing.

The term “active ageing” has been mentioned in academic literature as well and, similarly to the content of the term “healthy ageing”, it is used in relation to a good physical health condition (Fries, 2012). At the same time, according to Fereshtehnejad and Lökk (2014), active ageing reflects the ageing process opportunities which should

primarily improve the quality of life – the aspect of being active and participation in social life is stressed besides physical, social and mental health and wellbeing. As one example, the World Health Organization started using the term “active ageing” in the late 1990s and defined it as “the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age” (WHO, 2002, p. 12). Even though the term “active ageing” emphasises the dimension of quality of life, the term “healthy ageing” does not.

According to the European Commission (Hendrickx, 2016, p. 5), “active ageing means helping people stay in charge of their own lives for as long as possible as they age and, where possible, to contribute to the economy and society”. This definition brings the socio-economic dimension into the context of the ageing process. It shows that the concept of active ageing could be examined not only on the individual level, but it affects the processes on the public and governmental level as well.

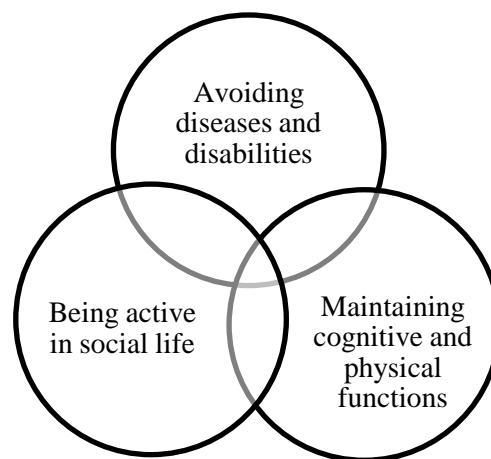
Moreover, the European Commission uses the term “AHA” (active and healthy ageing) to integrate the terms “active ageing” and “healthy ageing”. The concept of AHA was originally submitted by the World Health Organization as “the process of optimizing opportunities of for health to enhance quality of life as people age”, because there was a need to define active and healthy ageing as a concept at a political level (Bousquet et al., 2015, p. 957).

The European Innovation Partnership on Active and Healthy Ageing (EIP-AHA) is an institution that applies the concept of AHA within the European Union with the aim to increase expected healthy life years by two years by year 2020 based on three dimensions: health domain, behavioural domain and social-related domain (Carretero, Navarro-Pardo, & Cano, 2015). The domain of health in the AHA concept is tightly related to the wellbeing of elderly people (João & Bousquet, 2016, p. 3):

- 1) physical and cognitive capability across the life course;
- 2) psychological and social wellbeing, mental health and quality of life across the life course;
- 3) optimal function and preservation from damage of psychological systems across the life course, preventing and delaying the onset of chronic diseases, frailty and disability.

At the same time, the health domain depends on behavioural and social habits (e.g. healthy lifestyle) (João & Bousquet, 2016). When it comes to the integrated term “active and healthy ageing”, it could be declared that besides the dimensions of health (physical, social, mental) and quality of life, it emphasises the conscious behavioural aspect which should benefit to the healthy life years of a person.

Another term in use is “successful ageing”. The best known interpretation on the concept of successful ageing was probably published in 1987 modified in 1998 by Rowe and Kahn. Rowe and Kahn (1987) distinguish between normal ageing, which contains high risk of diseases, and successful aging, which contains low risk of diseases with good physical and mental functional abilities. According to Walters, Cattan, Speller and Stuckelberg (1999), the term “successful ageing” is mainly used in the context of gerontology and geriatrics and it emphasises the maintenance of the physical and mental functioning of a person and ensuring the necessary psychological and physical abilities for managing in later life. Figure 2 illustrates the concept of successful ageing as an integration of three dimensions: avoiding diseases and disabilities, being active in social life, and maintaining cognitive and physical functions.



**Figure 2.** The concept of successful ageing (compiled by the author, adapted from Rowe & Kahn, 1987; 1998)

The content of the term “successful ageing” is actually similar to the term “healthy and active ageing”; however, the context in which it is used is different. As different terms are in use, McKee and Schüz (2015) compared the different concepts of healthy, active

and successful ageing, tried to create an ideal model of healthy ageing and presented the term “successful ageing” as something that contains both active and healthy ageing:

$$\text{Successful ageing} = \text{active ageing} + \text{healthy ageing}$$

According to McKee et al. (2015), the term “successful ageing” could be considered quite a wide approach to the ageing process. At the same time, Fries (2012) states that successful ageing is rather a narrow approach to ageing; however, he has not justified this argument in his paper.

The term “healthy ageing” focuses mainly on a person’s physical, mental and social health and is, thus, similar to the traditional definition of health. The phrase “active ageing”, on the other hand, emphasises the importance of maintaining quality of life in the ageing process and expands the content of the term to a wider level (socio-economic). And finally, the term “successful ageing” describes a process, which supports reaching the best possible quality of life in older age while having good health (physical, mental, social) and being active in society.

In short, when comparing the different terms that describe the ageing process (in this paper: healthy, active, and successful ageing), the importance of a good condition of health is mentioned in all cases of suggested terms. As there are many different approaches to defining the ageing process and there is no consensus on this matter, in one way or another, the author uses the term “healthy ageing” in this paper, as it contains the basic information about the essence of health and emphasises the importance of physical health and wellbeing.

It is necessary to notice that the concept of healthy ageing (also active ageing, successful ageing, depending on the context, preferences, etc.) is implemented as a policy instrument as well. The Organisation for Economic Co-operation and Development (Oxley, 2009) states that the potential scope of “healthy ageing” is wide and the policies aimed at improving the process of healthy ageing can be grouped under four headings:

- 1) improved integration in the economy and into society;
- 2) better lifestyles (physical activity, nutrition, alcohol and tobacco use/misuse);

- 3) adapting health systems to the needs of the elderly;
- 4) attacking underlying social and environmental factors affecting healthy ageing.

This approach integrates levels which are related to the process and concept of healthy ageing: people (lifestyle and health issues) and society (contribution to the economy, influence on healthcare and social security systems), while paying attention to the need to react to the changes in the society that are caused by the matter of ageing population.

There are several international organisations (e.g. the European Innovation Partnership on Active and Healthy Ageing (EIP-AHA), the World Health Organization) which are leading institutions in approaching healthy ageing as a policy tool and implementing the concept of healthy ageing in their programmes. For example, the World Health Organization presents ten facts on ageing and health, and explains why it is important to pay attention to ageing population (WHO, 2015):

1. The world's population is rapidly ageing.
2. There is little evidence that older people today are in better health than their parents.
3. The most common health conditions in older age are noncommunicable diseases.
4. When it comes to "health", there is no "typical" older person.
5. Health in older age is not random.
6. Ageism may now be more pervasive than sexism or racism.
7. Comprehensive public health action will require fundamental shifts in how we think about ageing and health.
8. Health systems need to be realigned to the needs of older populations.
9. In the 21<sup>st</sup> century, all countries need an integrated system of long-term care.
10. Healthy Ageing involves all levels and sectors of government.

The list presented by the World Health Organization represents very different aspects of ageing, from the perspectives of an individual and the society, and sums up how ageing population affects the societies and relates to the issues that are the targets of the concepts of ageing. This list also confirms the actuality of healthy ageing in its diversity in different contexts.

In this paper, the term “healthy ageing” focuses on maintaining good health (physical, mental, social) through healthy lifestyle and being physically active. The author of this paper uses the term “healthy ageing” consistently throughout the thesis.

## **1.2. The role of physical activity in the context of healthy ageing**

First, it is necessary to explain the term “physical activity”. According to the Medical Dictionary for the Health Professions and Nursing (2012), physical activity could be defined as “any body movement produced by muscles that results in energy expenditure”. According to the McGraw-Hill Concise Dictionary of Modern Medicine (2002), physical activity is defined as “athletic, recreational or occupational activities that require physical skills and utilize strength, power, endurance, speed, flexibility, range of motion or agility...”. Those terms are supported by Middelkamp (2015) who claims that physical activity contains various daily activities like walking, gardening and other activities such as cycling, sports and other.

Next, it is relevant to mention that there have been discussions as to where physical activity ends and physical exercise begins (McKee, 2015). According to WordNet 3.0, Farlex clipart collection (2003-2008), physical exercise could be defined as “the activity of exerting your muscles in various ways to keep fit.” Caspersen, Powell and Christenson (1985, p. 129) claim that exercise is a “planned, structured, and repetitive bodily movement done to improve or maintain one or more components of physical fitness”.

There are several studies that emphasise the importance of physical activity in the ageing process. Dugdill, Crone and Murphy (2009) highlight the importance of physical activity for maintaining physical and psycho-social health that in turn helps to improve the independence, competence, autonomy and increase the quality of life in an ageing society. According to King and King (2010, p. 40), “physical activity has been identified as one of the three key health behaviours impacting the major chronic diseases of aging that are increasingly responsible for a substantial proportion of global mortality.”, while nutrition (dietary patterns) and tobacco use are mentioned as other two key health behaviours.

Castillo-Garzòn, Ruiz, Ortega and Gutiérrez (2006) mention that “when appropriately undertaken, physical exercise is the best means currently available for delaying and preventing the consequences of aging, and of improving health and wellbeing” (p. 213) by bringing in the dimension of exercising to the context of healthy ageing. The World Health Organization resolutely distinguishes physical activity, which could contain both exercises and daily bodily movements (e.g. working, housework, recreational activities); exercise, on the other hand, is a form of physical activity that is organised and has a purpose in order to improve physical parameters (World Health Organization, 2010). Meanwhile, the term “fitness” is defined and distinguished as “exercise in fitness clubs, PT studios, at home or at work using strength, cardio and/or functional equipment” in relation to the term “physical exercise” according to Middelkamp (2015, p. 21), where “PT studios” mean personal training studios.

Whereas physical activity, physical exercise and fitness are defined as activities, the term “physical fitness” describes the state that could be reached after applying physical and/or activities and exercises by a person. The Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition (2003) defines physical fitness as “a state of physiologic wellbeing that is achieved through a combination of good diet, regular physical exercise, and other practices that promote good health”. According to Rimmer (1998), physical fitness may be defined in various ways depending on the individual’s age and lifestyle – for elderly people, it may mean being able to conduct their homework without getting tired, i.e. he/she still has energy to participate in some other type of activities (e.g. leisure, sports), and the components of physical fitness are (*Ibid.*, 1998, p.2):

- 1) muscle strength and endurance;
- 2) flexibility;
- 3) body composition (body fat);
- 4) cardiovascular endurance (the ability of the heart, lungs and blood vessels to transport oxygen to working muscles).

Also, Rimmer (1998) states that a good physical fitness level maintains the quality of life of elderly people by reducing their dependency from other people in everyday life.

Moreover, Rist, Capistrant, Mayeda, Liu and Glymour (2017) confirm that physical inactivity may raise the risk of losing the ability to perform daily activities.

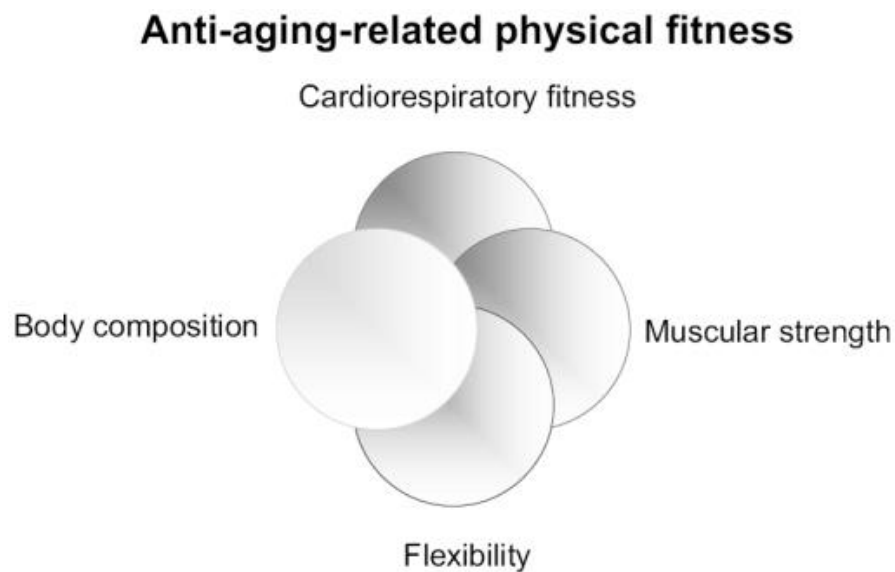
Based on the abovementioned definitions, the author of this paper claims that physical activity could be considered mainly as a daily bodily movement which is carried out for daily life activities that require physical actions. Physical exercise, on the other hand, is a form of physical activity which is mainly targeted towards improving a person's physical condition and health in order to maintain or reach the physical fitness of an individual.

Furthermore, as physical fitness could be considered as a state of wellbeing, the author of this paper believes that regular physical activity and exercising may lead to a physical wellbeing of a person, which is one of the components of person's health and, in turn, plays an important role in the process of healthy ageing. In relation to physical wellbeing, Fair (2011) presents the term "physical wellness" and defines it as a system of different components such as medical wellness, pharmaceutical and drug wellness, nutritional wellness, aerobic capacity wellness, muscular fitness wellness, flexibility wellness, and body composition wellness. Likewise, Fair (2011) concurs that fitness consists of aerobic capacity, muscular fitness, and flexibility, and introduces a term "fitness wellness" that defines those activities which are related to developing aerobic capacity, muscular fitness, and flexibility while having an impact on certain diseases.

Santonja and Lombao (2011) claim that most of the physiological symptoms of ageing could be changed or kept under control by being physically active. For example, the loss of muscle mass, bone mass and strength is not caused by ageing, but physical inactivity, because it leads to the degeneration of muscles, bones and joints. When it comes to healthy ageing, Castillo-Garçon et al. (2006) present a model which points out the components of physical fitness that are especially related to good health and disease prevention in the ageing process (see Figure 3.). Castillo-Garçon et al. (2006, p. 214) pays attention to the positive impact of regular physical activity and exercising on health:

- reduction in the risk of developing ischemic heart disease and other cardiovascular diseases;

- reduction in the risk of developing obesity and diabetes;
- reduction in the risk of developing (and control of) high blood pressure and dyslipidemia;
- reduction in the risk of developing breast and colon cancer;
- helps in the control of body weight and improves “body image”;
- tonifies muscles and preserves or increases muscular mass;
- strengthens bones and joints;
- increases coordination and neuro-motor responses (reduces the risk of falls);
- improves immune system activity;
- reduces depression and anxiety;
- promotes wellbeing and social integration.



**Figure 3.** Anti-ageing-related physical fitness (adapted from Castillo-Garçon et al., 2006, p. 214)

As has already been pointed out, physical activity has an important role in maintaining a good physical condition and health of a person. However, it has positive effects on a person`s social (e.g. having an effect on a person`s wellbeing and social integration) and mental (e.g. relieving symptoms of depression and anxiety) health as well. With regard to mental health, several studies (Blackwell, 2007; Northey, Cherbuin, Pumpa, Smeed

and Rattray, 2017) claim that physical exercising may reduce stress, depression and anxiety, improve mood, and even reduce the risk of dementia. It could be claimed that exercising and being physically active is beneficial to all three dimensions of health (physical, social, mental) and therefore supports the idea of healthy ageing.

Thus, there is no doubt that regular physical activity plays an important role in being healthy during the whole lifespan (Blackwell, 2007). Ohuruogu (2016, p. 123) states that regular physical activity and physical fitness make a contribution to optimal health and wellness as follows:

1. Physical activity and fitness can aid in disease/illness prevention.
2. Physical activity and fitness can be a significant contributor to disease/illness treatment.
3. Physical activity and fitness are methods of health and wellness promotion.

At the same time, physical inactivity is a worldwide problem and it is claimed that elderly people are the least physically active segment of the population (King & King, 2010). The Organisation for Economic Co-Operation and Development claims that lifestyle has an impact on health condition in the older age and physical activity is one of the key elements that contributes to the quality of life in general while considering that people become less active in older age (Oxley, 2009). Therefore, it could be concluded that it is crucial to find ways to motivate elderly people to be physically active and exercise more.

As mentioned in the previous chapter, several studies show that the general public considers the elderly to be at least 50 years of age or, alternatively, at least 65 years of age. At the same time, the World Health Organization (2010) provides instructions for adults (18–64-year-olds) and separately for elderly people aged 65 years and above. The retirement age is probably taken into consideration regarding this approach. Thus, there are different approaches to old age and estimations as to when should people start with a special physical activity programme and exercising in the context of healthy ageing. Heikkinen (1998) and Blackwell (2007) suggest, taking the aspects of gerontology into consideration, that people should start thinking about the process of healthy ageing when they are 45 years old in order to prevent the changes that occur with ageing in general. Physical activity should involve various actions for maintaining aerobic

capacity/endurance (walking, swimming, skiing, cycling, etc.), for improving the functions of muscles and joints (exercises with own body weight and weight training), and for improving speed, skills and reactivity (dancing, ball games) (*Ibid.*, 1998).

Castillo-Garçon et al. (2006) suggest that training programs for people should be designed based on previous fitness diagnostics, information about person`s lifestyle and physical activity habits – personalized training programmes are targeted to improving physical and mental health in the best maximum way while reducing negative sides of getting old. In addition, Fair (2011) promotes that physical therapists should be including in the process of planning physical activity and exercise as exercise experts, which seems especially important for elderly people, because of their possible diseases and inabilities that are related with ageing.

### **1.3. The role of health promotion and the fitness sector in healthy ageing**

In order to inform people of the benefits of physical activity and regular exercise, various health promotion activities could be carried out. Therefore, the author of the thesis considers it important to explain the role of health promotion in the context of healthy ageing and brings in the role of the fitness sector in this regard. Nowadays, health promotion in healthy ageing is one of the most important strategies that aims to change the beliefs and patterns in the society that reflect the health behaviour and lifestyles of elderly people (Blackwell, 2007).

According to the Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition (2003), health promotion is understood as “programs designed to inform the public about health risks and methods to prevent and reduce them; the programs are often targeted at specific populations. Where the risk cannot be eliminated, health promotion programs may focus on improving or maintaining the affected person`s quality of life”. Fair (2011) outlines that health promotion is a complex of activities that contributes to changes in people`s lifestyle in order to achieve the state of optimal health. At the same time, the most known definition of health promotion is probably provided by WHO (1986, p.1): “health promotion is the process of enabling people to increase control over, and to improve, their health”.

Health promotion has a great importance in improving personal and social health competence amongst elderly people in, for example, the following reasons (Lis, Reichert, Cosack, Billings, & Brown, 2008, p. 7):

1. Health is a basic right of (older) people.
2. Health is one of the most important predictors of life satisfaction in old age.
3. Health is a prerequisite for an independent life in old age.
4. Health is vital to maintaining an acceptable quality of life in older individuals and ensuring the continued contributions of older persons to society.
5. Health is a determinant of economic growth and competitiveness (e.g., decreasing early retirement of older workers).
6. A healthy population reduces health-care spending and lowers the burden on the health-care system.

Therefore, health promotion is a necessary tool that supports the concept of healthy ageing on different levels (e.g. individual, society, economic, health care). For example, the healthcare sector is contributing 10% of the GDP in the European Union and this is the reason why health is one of the most important aspects of the Europe 2020 strategy, according to which health promotion has a significant role in this action by concentrating on healthy ageing as well (Drop et al., 2016). As an example, the World Health Organization is one of the leading organisations that concentrates on health promotion among the elderly people, promotes the policy of active ageing and provides recommendations in the field of health and ageing (*Ibid.*, 2016).

When talking about the promotion of physical activity from a point of view similar to that of health promotion, Dugdill et al. (2009) explain that physical activity promotion could be provided in a structured format and individually (e.g. face-to-face training, counselling by a health or fitness professional). Several measures could be taken in order to change the behaviour of people (e.g. fitness testing, health risk assessments, health education, and cognitive behavioural-change techniques such as self-monitoring, goal setting or decisional balance) (*Ibid.*, 2009).

Sallis, Bauman and Pratt (1998) defined policy for physical activity as “legislative, regulatory or policy-making actions that have the potential to affect physical activity” (p. 380). The organisation for Economic Co-Operation and Development (2009, p. 17)

claims in its policy document that changing the health behaviour of older people is rather complicated, especially in case of those who have exercised little in their life before, and states that the following measures could be effective for changing the behaviour patterns of older people:

- regular contact with an exercise specialist in a centre-based environment;
- support of health professionals integrated with written materials and primary care;
- home-based interventions, such as using walking as exercising, exercises of moderate intensity.

According to Kasmel and Lipand (2007), various institutions (e.g. state, family, educational institutions, cultural activities, sport and recreational organisations, employers/working places, healthcare system) are considered to be part of the health promotion process, as they help to design and provide the environment that contributes to client`s health improvement and form social norms and standards at the same time. The fitness sector and its organisations could contribute to health promotion, especially in the context of physical activity, while designing and providing various services for its clients, including the elderly people.

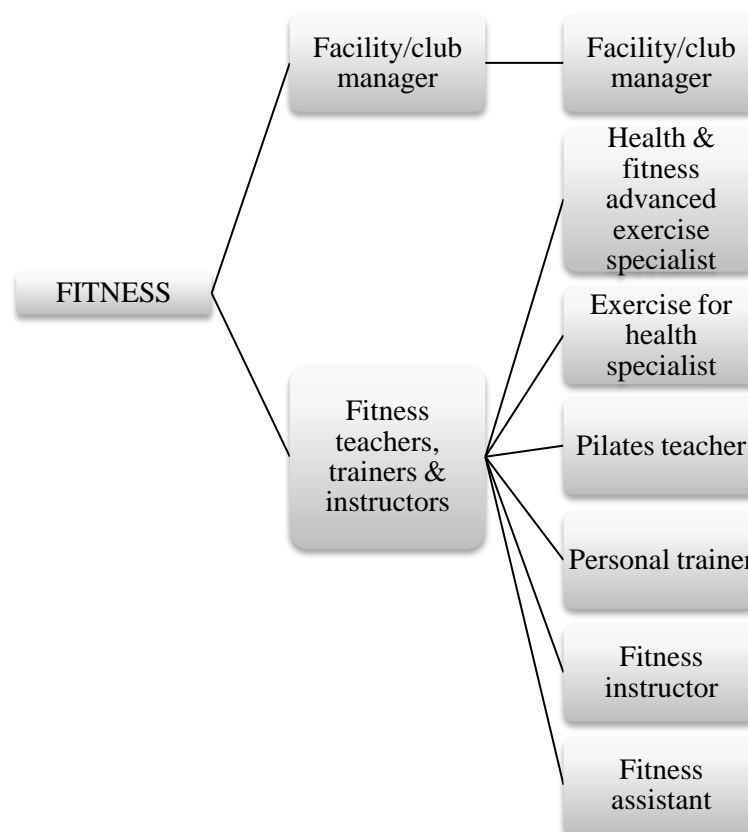
A person can be physically active independently and/or under supervision. One option is to exercise under guidance in fitness clubs, where one can choose a suitable exercise programme. The fitness sector is a growing industry worldwide. Andreasson and Johansson (2014) state that the growth of the fitness sector started in the 1970s. It should be noted that Andreasson and Johansson (2014) understand fitness as mainly bodybuilding and claim that bodybuilding, workout techniques, aerobics and fitness in general became even more popular in the 1980s. Andreasson and Johansson (2014) claim that “today most people just use the term fitness when talking about fitness gyms, characterized by a mixture of training styles and mixtures” (p. 103).

According to the European Skills/Competences, qualifications and Occupations (ESCO) (2014):

The fitness sector uses qualified instructors and trainers to deliver diverse, structured exercise programmes that help people of all ages and abilities to improve their health, muscle and cardiovascular endurance,

coordination, balance, agility and flexibility. Fitness programmes also build a feeling of individual wellbeing that establishes and helps to maintain a healthy balance of mind, body and spirit. (p. 3)

Figure 4 presents the structure of a fitness sector organisation (a fitness club) according to the European Skills/Competence, qualifications and Occupations.



**Figure 4.** The structure of a fitness sector organisation (compiled by the author; adapted from ESCO, 2014)

When speaking of the fitness sector in the context of health promotion, it could be claimed that being physically active and exercising (whether independently or under supervision) improves a person's health and wellbeing and in addition to trainings (sports, exercising and physical activity, both indoor and outdoor), the fitness sector may provide other opportunities for health improvement – e.g. seminars/lectures for the

clients, creating role models, support groups for people of the same age, and a healthy environment in general. (Kasmel & Lipand, 2007)

According to Heikkinen (1998), there are several aspects that need to be taken into consideration when promoting physical activity and exercising among elderly people. He brings out three types of barriers: social barriers, individual barriers and environmental barriers (see Table 1.).

**Table 1.** Social, individual and environmental barriers (compiled by the author, adapted from Heikkinen, 1998)

<b>Social barriers</b>	<b>Individual barriers</b>	<b>Environmental barriers</b>
Ageism (discrimination because of age)	Illness and functional disabilities	Weather (cold winter, rainfall, darkness)
Learned helplessness	Living in the region where there are no possibilities for exercising	Lack of training spots and areas (also their distance from home and bad accessibility)
Lack of role models	Decrease in income	Unsuitable conditions and equipment for older people (e.g. too cold water in a pool)
Myths about unhealthiness of physical activity in old age	Lack of information about advances of physical activity	Poor lighting and/or signals for visually handicapped people
Misapprehension and lack of information about advances of physical activity among doctors	Lack of motivation, time and social support	Insufficient options for adapting equipment and exercises for people who have functional disabilities
Physically passive lifestyle	Fear of injuries (e.g. falling)	
Lack of interest in providing/designing special services for older people by fitness clubs	Unsuitable sports clothing and equipment	

In the context of health promotion policies and campaigns, information and suggestions are provided to improve people's health condition and lifestyle, by giving various recommendations which could be implemented at different levels (public sector, private sector, community, individual). For example, Rimmer (1998, p. 5–7) explains how to start exercising in an older age by providing the following suggestions:

- 1) getting a physician's approval to start an exercise program,
- 2) increasing physical activity throughout the day,
- 3) choosing the right exercise program,
- 4) exercising a minimum of three days a week,

5) keeping the program fun and rewarding.

For the purpose of the current thesis, it is important to note that being physically active, exercising and being healthy until old age could be influenced by how fitness services are organised and offered by the fitness sector. When talking about fitness services, service design as a process and an approach should be taken into consideration. Fitness services may be considered complex and distinctive and their essential role is to help clients improve their physical abilities and condition in various ways – this is the reason why fitness service providers have to understand their clients` needs, background, etc. (Lagrosen & Lagrosen, 2007).

According to Moritz (2010), service design helps to “... innovate (create new) or improve (existing) services to make them more useful, usable, desirable for clients and efficient as well as effective for organisations. It is a new holistic, multidisciplinary, integrative field” (p. 6). Service design is considered a rather new approach, as it was first described in the 1990s (Sangiorgi & Prendiville, 2014). In the context of the current thesis, “service” means a fitness service provided by a fitness sector organisation and “clients” are understood as elderly people. Every fitness organisation has its own preferences when it comes to which target groups, services, personnel etc. In the context of health promotion and healthy ageing, the fitness organisation can decide whether providing services to elderly people as to a specific target group could be one of their aims. When defining target groups in the fitness sector, Middelkamp (2015) brings out three options, which could be applied in the context of healthy ageing and elderly people as well:

- 1) by defining the scope of motivation and behavioural change by a fitness professional (e.g. how to design a service/programme for a particular client);
- 2) by selecting people based on a state of change (client`s readiness to adopt new approaches);
- 3) by focusing on specific health threats or diseases (new target groups depending on the health condition).

According to Lagrosen and Lagrosen (2007), three quality dimensions of fitness services could be distinguished:

- 1) physical change, which is related to two key words –“beauty” (aesthetic objectives) and “function” (bodily activity);
- 2) mental change, which means that the clients` mental status is improved by specific programmes (e.g. yoga, meditation);
- 3) pleasure, which is gained by social pleasure while interacting with other clients and staff members, as well as by physical enjoyment of the exercises and other actions (e.g. massage, treatments).

In order to increase the quality of these three dimensions, technical competence (the ability to provide different services) and relational competence (the behaviour of the staff) are needed – these are called direct enablers. According to Grönroos (1984), image as one dimension of service quality is presented in addition and is directly related to technical quality and functional quality (how the service is provided). In case of fitness services, functional quality could be considered quite similar to relational competence. Therefore, Lagrosen and Lagrosen (2007) claim that indirect enablers are crucial in order to ensure the required competences as follows:

- 1) facilities (physical environment, equipment);
- 2) training (education, skills, knowledge of the staff);
- 3) evaluation (need for improvement);
- 4) empowerment (authority of staff member to customise services according to clients` needs);
- 5) climate (internal and external relations and communication inside the organisation and with partners);
- 6) leadership (management`s ability to motivate their employees).

As mentioned before, every organisation has its own preferences when it comes to which target groups, services, personnel etc. In the context of health promotion and healthy ageing, fitness organisation can decide whether providing services for elderly people as to a specific target group, could be one of their aims. Being familiar with the context, knowing the needs and interests of the target group, developing a network, choosing the appropriate strategy, lobbying, and developing the organisational capacity are the key factors in health promotion (Kasmel & Lipand, 2007). It can be said that the

fitness sector plays an important role in health promotion and is an important partner in health promotion activities.

Lubans et al. (2017) present the SAAFE principles (Supportive, Active, Autonomous, Fair, Enjoyable) which are designed to plan, deliver and evaluate organised physical activity sessions in different areas (especially in schools, but also in communities). The SAAFE principles are summarised in Table 2. These principles could be extended to designing fitness services for elderly people, while taking into consideration the suggestions that are important to remember when attracting elderly people to participate in trainings.

**Table 2.** A summary of the SAAFE principles (compiled by the author; adapted from Lubans et al., 2017)

<b>Principles</b>	<b>Example strategies</b>
Supportive	<ul style="list-style-type: none"> <li>➤ Provide individual skill-specific feedback</li> <li>➤ Support feelings of autonomy, competence, and social connection</li> <li>➤ Provide praise on client`s effort and improvement</li> <li>➤ Acknowledge and reward good performance</li> <li>➤ Demonstrate empathy toward clients who appear frustrated or challenged</li> </ul>
Active	<ul style="list-style-type: none"> <li>➤ Optimise session structure and activity selection</li> <li>➤ Include an active warm-up</li> <li>➤ Maximise equipment available</li> </ul>
Autonomous	<ul style="list-style-type: none"> <li>➤ Provide clients with opportunities for choice</li> <li>➤ Provide a meaningful rationale for the different activities</li> </ul>
Fair	<ul style="list-style-type: none"> <li>➤ Modify activities to maximise clients` opportunities for success</li> <li>➤ Encourage self-comparison rather than peer-comparison</li> <li>➤ De-emphasise competition</li> </ul>
Enjoyable	<ul style="list-style-type: none"> <li>➤ Design activities with which clients can exhibit choice, feel competent, and also interact with others</li> <li>➤ Start and conclude sessions with an enjoyable activity</li> <li>➤ Ensure that sessions involve a variety of activities</li> <li>➤ Use self-selected and motivational music while exercising</li> </ul>

Altogether, several parties are engaged in applying the healthy ageing concept via promotion of physical activity and exercising; and they all have their own main goals and opportunities in this context. The roles, goals and opportunities of governmental level, fitness sector, fitness participants, and fitness instructors are presented in Table 3 (Liang & Fassi, 2015).

**Table 3.** The roles, goals and opportunities of various parties in the health promotion process (compiled by the author; adapted from Liang & Fassi, 2015)

<b>Role</b>	<b>Goal</b>	<b>Opportunity</b>
Governmental level	Deal with the ageing and social & health problems	Active ageing policy
Fitness sector	<ul style="list-style-type: none"> <li>✓ Work for corporate social responsibility</li> <li>✓ Brand behaviour</li> <li>✓ Advertisement</li> </ul>	Invest in the fitness service design and new services
Fitness participants	<ul style="list-style-type: none"> <li>✓ Health needs</li> <li>✓ Emotional needs</li> <li>✓ Sense of belonging</li> </ul>	<ul style="list-style-type: none"> <li>✓ Do fitness</li> <li>✓ Attend the fitness movement</li> <li>✓ Cultural and recreational activity</li> <li>✓ Same sport clothes</li> </ul>
Fitness instructors	Personal passion	Being paid for the coach work

To conclude, the studies mentioned above emphasise the importance of health promotion in the context of healthy ageing in order to motivate elderly people to be physically more active and exercise regularly. The fitness sector could be one of the contributors in this process, by attracting elderly as a separate target group and designing special services for them.

## **2. METHODOLOGY**

### **2.1. Research strategy and data collection practicalities**

This chapter describes the research strategy and data collection practicalities. The current research was conducted to find answers to the following research questions: 1) How could the concept of healthy ageing be applied in the fitness sector in order to design and provide special services for elderly people; 2) What could be the mechanisms (actions, tools, etc.) that would motivate elderly people to be physically more active and exercise in the fitness sector; 3) Whether and what kind of resources the fitness sector needs to design and provide special services for elderly people.

Research was conducted using the Delphi method. The Delphi method is considered to be a flexible research technique used to collect the opinions of experts about different topics. It suits well when the goal is to improve understanding of various problems, opportunities, solutions, or to develop forecasts (Skulmoski et al., 2007). The Delphi technique differs from conventional surveys mainly in that the aim of the Delphi technique is to answer the question of “what could/should be” instead of “what is” (Hsu & Sandford, 2007; Konu, 2015), and this is one of the reasons why this method was selected for this research. The Delphi method was created in the 1950s in order to use it in policy-making and has been applied as part of mixed methods studies, not separately to complete a research (Brady, 2015; Konu, 2015). Delphi has gained popularity in different sectors. For example, it has been applied in a new service development process in tourism (Konu, 2015; Smith, 2015).

The Delphi method is known as a process that should lead to a consensus (Hsu & Sandford, 2007; Konu, 2015). At the same time, some studies claim that consensus should definitely not be the aim and different applications of the Delphi method could be distinguished, e.g. Decision Delphi which is aimed at collecting information in order

to support a resolution related to the development of a new service by finding new service ideas and evaluating and selecting possible service ideas which could be further developed (Konu, 2015).

The Delphi method has to correspond to the following characteristics (Brady, 2015; Konu, 2015):

- 1) anonymous – to reduce the effect and prevailing of dominating persons;
- 2) structured – the flow of information is coordinated by the researcher;
- 3) repetitive – several numbers of rounds of questions are provided and same experts are questioned using same questions;
- 4) reflexive – experts` comments, feedback, estimations and opinions are based on the results from previous rounds.

The Delphi study includes usually three main stages. The first and most crucial part is the selection of participants, who are usually called experts, because the choice of participants lays the foundation for the quality of the results and findings (Konu 2015; Smith, 2015). Also, the issues and statements related with the topic are defined in the first stage (e.g. preparation of the questions and design of questionnaires). The second stage contains Delphi rounds with the assumption that a minimum of two rounds should be completed. In the third stage, the analysis of the findings and results is carried out.

The author of this paper finds it necessary to discuss the benefits and critical issues that are associated with the Delphi technique. Hsu and Sandford (2010) claim that the biggest advantage of the Delphi method is that it is preferred in cases where the topic has not been researched before, as several rounds allow participants to reflect on their responses by providing an opportunity to modify these in the following rounds. Also, innovative thinking may appear while participants have an opportunity to forecast future trends and possibilities (*Ibid.*, 2010). This is also one of the reasons why this method was chosen as a research strategy for this paper – to get ideas for future possibilities. The limitations and critical issues of the Delphi technique should be pointed out as well. First, some studies claim that there are no universal guidelines on how to conduct a Delphi study, i.e. there are several variations of formats and implementations that may affect the scientific respectability of the study. Nevertheless, there are some common requirements that are respected. For example, a Delphi study should have at least two

rounds. Also, the discussion about reaching a consensus has certainly been brought out, because the consensus is not always the aim (Keeney, Hasson & McKenna, 2011). Secondly, the opinion about the number of panellists differs in various studies (Hsu & Sandford, 2007; Konu, 2015). As there is no consensus about the required number of experts, it is suggested to take the goal of the study and resources that are available into consideration instead of the concrete sample size (*Ibid.*, 2011). Also, the lack of anonymity is viewed as one of the critical issues regarding the Delphi technique; however, the anonymity of the experts depends on how the research is organised and coordinated. It is also mentioned that it is difficult to define who is an expert, how experts are chosen and what level of consensus should be achieved.

The Delphi group of experts was selected amongst the fitness professionals from Estonia: fitness club managers, fitness instructors and personal trainers. In order to add an international dimension, the author attempted to involve fitness and healthy/active ageing experts from other countries as well. The researcher turned to EuropeActive in order to reach fitness professionals from other countries, especially those who work with elderly people. EuropeActive (<http://europeactive.eu/>) is a non-profit organisation representing the European fitness, physical activity and wellbeing sectors in Brussels. Its main goal is to “get more people, more active, more often”.

Table 4 presents an overview of the experts who participated in the Delphi study performed for this paper. The aim was to receive responses from at least ten respondents in round one in order to continue with round two. The researcher managed to engage nine experts from Estonia and three experts from other countries (Sweden, Denmark, Hungary). All respondents remain anonymous in this study.

A questionnaire for experts was drawn up based on literature review. The questions were divided into three main groups:

- 1) the concept of healthy ageing;
- 2) the role of physical activity and exercising amongst elderly people;
- 3) special fitness services for elderly people.

The Delphi study was conducted in March and April 2017. The questionnaire for Estonian fitness professionals was drawn up in Estonian. The translated version of the

questionnaire is presented in Appendix 1. An online questionnaire was sent to experts by e-mail and consisted of 13 questions addressed to Estonian respondents. It was estimated that replying to the questions should not take more than 20 minutes.

**Table 4.** Composition of Delphi experts (compiled by the author)

<b>Respondent</b>	<b>Country</b>	<b>Round One</b>	<b>Round Two</b>
Personal trainer	Estonia	✓	✓
Fitness manager (also fitness instructor and physiotherapist)	Estonia	✓	✓
Fitness club manager (also fitness instructor)	Estonia	✓	✓
Personal trainer	Estonia	✓	✓
Fitness club manager	Estonia	✓	✓
Fitness instructor		✓	✓
Fitness instructor	Estonia	✓	✓
Fitness professional (a fitness club with Europe's first training concept completely developed for senior citizens)	Sweden	✓	✓
Fitness club manager and fitness instructor	Estonia	✓	
Fitness instructor	Estonia	✓	
Fitness professional (a fitness club that targets specific and targeted programmes for elderly people)	Denmark	✓	
Fitness professional (fitness, wellness and sports education provider)	Hungary	✓	

The questionnaires for Estonian fitness professionals and for international experts were not identical. Questions addressed to Estonian fitness professionals were slightly different from those addressed to international organisations. For example, international experts were asked why they think it is important to promote the concept of healthy ageing with the assumption that these organisations are already engaged with this promotion in their work. However, Estonian fitness professionals were asked only whether they had noticed the term “healthy ageing” somewhere. The questionnaire for international experts can be found in Appendix 2. The questionnaire was sent to international experts by e-mail, and, again, it was estimated that replying to the questions should not take more than 20 minutes. The author of this study prepared the questionnaire for round two based on the responses received in round one.

Round two also involved an online questionnaire, which was based on the results of the first round and contained seven questions. The questionnaire can be found in Appendix 3. Seven Estonian respondents took part and one international expert (from Sweden)

contributed to round two. Thus, the results of the Delphi study are based on the responses of eight experts.

Furthermore, the author of the study involved one more expert during round two to get a comparative opinion from the healthcare sector. The researcher used the same online questionnaire to receive responses to and comments on the same questions that were presented in round two to the Delphi group. It is important to mention that the comparative opinion is not considered as part of the Delphi study, but was obtained in order to add some betterment to the opinions of the fitness sector. The researcher asked the project “Senior Gym” (Estonia) to comment on the topics that were targeted to fitness sector experts in round two. The aim of this action was to compare the opinions of the fitness sector with the ideas provided by physical therapists from the healthcare sector. “Senior Gym” is a project which participated in the greatest competition of business ideas in Estonia called “Ajujaht” (brain hunt) (<http://www.ajujaht.ee/en/about/>). The competition was initiated by Enterprise Estonia in 2007. “Senior Gym” made it to TOP 30 of the presented ideas. The aim on this project is to popularise physical activity among middle-aged and elderly people in order to reduce healthcare costs. A description of this project is presented in Appendix 4.

## **2.2. Data analysis**

This chapter gives an overview of data analysis and the findings of the research. The Delphi study performed for this paper had two rounds and was completed in March and April 2017. Nine experts from Estonia and three experts from other countries (Sweden, Denmark, Hungary) participated in round one, and seven Estonian respondents took part and one international expert (from Sweden) contributed to round two. The findings and results are presented based on the responses from round two with comments from round one in order to provide a more thorough explanation.

The first group of questions concerned the concept of healthy ageing. The aim of the questions was to find out whether fitness sector professionals are aware of the term and the concept of healthy ageing in general (e.g. do they have any point of contact with this term and concept). Respondents were asked to indicate whether and in what context

they have noticed the term “healthy ageing” (active ageing and successful ageing were also mentioned). Responses were as follows:

- ageing population,
- healthy lifestyle,
- physical activity and sport,
- being socially active in an older age,
- changes in a labour market,
- preventive healthcare for seniors,
- cosmetic products,
- fitness-wellness services,
- academic literature.

Some respondents pointed out the connection with their professional work. For example, one respondent (fitness club manager) said that they have considered using the term “healthy ageing” in the promotion campaign of their fitness club, but they do not have a good idea as to how to present this concept. Also, one respondent (fitness club manager) mentioned that the term “healthy ageing” is not in everyday use when providing fitness services. However, when consulting clients personally, the trainers emphasise that being physically active and leading a healthy lifestyle in younger age has a positive impact on the quality of life in older age.

In round two, respondents were asked to choose three terms they consider characteristic of the concept of healthy ageing. The three most often mentioned terms were as follows:

- 1) physical activity and sport,
- 2) healthy lifestyle,
- 3) being socially active in an older age.

The most popular characteristic of the concept of healthy ageing was “physical activity and sport”. As the respondents were representatives of the fitness sector, this response was anticipated. Besides “physical activity and sport”, “healthy lifestyle” and “being socially active in an older age” were other frequently mentioned terms. These characteristics are also directly connected to the activities that are offered and supported by the fitness sector. “Physical activity and sport” may be considered as one sub-action

of healthy lifestyle that benefits to the process of healthy ageing. Participation in fitness activities helps elderly people to become more socially active, as it gives an opportunity to belong to some groups, communicate with other elderly people, etc. In addition, characteristics such as “preventive healthcare for seniors” and “fitness-wellness services” were mentioned. Other characteristics were not suggested for describing the concept of healthy ageing by the respondents in this study.

As a comparative opinion, Senior Gym also pointed out the characteristics “physical activity and sport” and “being socially active in an older age”, while mentioning that healthy ageing is associated with “changes in a labour market” as well, thus bringing out the socio-economic dimension of the concept of healthy ageing.

In round one, respondents were asked to indicate how old an elderly person is in their opinion. Responses varied from 40 years to retirement age (65 years in Estonia). A 40-year-old person was considered old only because of taking into consideration the functioning of human body and organism – one respondent pointed out that the first indications of body ageing appear around the age of 40. It shows that the approach to is diversified. Based on these opinions, the experts were asked to indicate from which age the promotion of healthy ageing should start. In round two, respondents agreed that the promotion of healthy ageing should be targeted to people in their 40`s. One respondent (from Sweden) believed that the promotion of healthy ageing should start at the age of 65 and later. However, Senior Gym took a different view and proposed “55 years and over” as a response. The author of this paper claims that even though the Delphi group agreed that the promotion of healthy ageing could be targeted to the population from the age of 40, further research is needed as to from which age the promotion of healthy ageing should begin and why. There could be a difference in understanding from which age a person is considered older by the fitness sector for example and from which age it is necessary to pay attention to healthy ageing (as a preventive concept and while targeting to elderly people already).

The second group of questions focused on the role of physical activity and exercising among elderly people. In round one, respondents provided an overview of the trainings they consider popular amongst their elderly clients for background information. Mostly, body and mind trainings were mentioned (pilates, yoga, body balance, therapeutic

trainings), and it was pointed out that mainly those elderly people are active in various trainings (in all other classes too) who have exercised and been physically active already before during their lifespan.

In addition, respondents were asked whether they provide special trainings for elderly people now. Five Estonian fitness professionals mentioned that they do not provide special trainings for elderly people. Other four respondents mentioned that they have some special training groups for elderly people already in the club in which they are working – e.g. a dance group for elderly ladies, water aerobics, weight training.

In addition, respondents commented which trainings and why they find suitable for elderly people. It was agreed that the suitability of various trainings depends on the health condition, previous experiences and fitness level of the person (e.g. what kind of sports they have previously practised and for how long and how often they have trained, what kind of injuries they have had). Based on the information gathered in round one, respondents were asked to express their opinions on what would motivate elderly people to be physically more active.

In round two, the respondents were asked to specify which three ideas they consider to be most effective in motivating elderly people to participate in the fitness sector. The following ideas were suggested by the respondents in round one (starting from the most frequently mentioned ones):

- special trainings/groups for elderly people;
- special trainings/groups for elderly people who have not trained before or for a long time;
- special prices for elderly people;
- special health promotion campaigns for elderly people;
- support by local government (e.g. financial support for participating in trainings);
- special senior gyms.

It is important to mention that the respondents were asked to name three options starting from the idea they found the most effective. Their top three according to the frequency was:

- 1) special trainings/groups for elderly people;
- 2) special trainings/groups for elderly people who have not trained before or for a long time;
- 3) support by local government (e.g. financial support for participating in trainings).

When assessing the importance of different ideas which could motivate elderly people to exercise and be physically more active, the following top three can be presented:

- 1) special trainings/groups for elderly people,
- 2) special trainings/groups for elderly people who have not trained before or for a long time,
- 3) special health promotion campaigns for elderly people.

It could be concluded that the experts find it important to design and provide special trainings and create special groups for elderly people, paying attention to those who have not trained before or for a long time. At the same time, it seems that participation in trainings could be encouraged by the support of the public sector as well. As elderly people (retired people) form a price sensitive target group, the financial support by the local government would be one supportive action, as well as providing health promotion campaigns in the context of healthy ageing and physical activity. In addition, experts could have added some other ideas in round two, but no other ideas were provided. Senior Gym pointed out that in addition to trainings, elderly people need physical activity counselling order to get recommendations for their daily life. That would be one of the motivators of being physically more active and exercising daily.

As already mentioned, the respondents thought that health promotion in the context of healthy ageing is one tool that may help motivate elderly people to be physically more active and participate in trainings. Based on the information gathered in round one, the respondents expressed their opinions as to why they think it is necessary to promote healthy ageing:

- to raise the quality of life of seniors,
- to reduce healthcare expenditures,
- to sustain working ability of elderly people longer (in terms of increasing retirement age).

The respondents agreed that promoting the concept of healthy ageing has the main importance and influence in raising the quality of life of elderly people. Only one respondent (fitness instructor) claimed that the main purpose should be the reduction of healthcare costs. According to this opinion, it could be declared that in order to maintain a good quality of life until the oldest possible age, applying the principles of the concept of healthy ageing could be crucial, and being physically active plays an important role in it. One respondent (fitness instructor) commented that as the population is ageing, the fitness sector could provide special training packages for elderly people and both, the participation in trainings and the promotion of healthy ageing, could be supported by the public sector as well, as it benefits to the quality of life of elderly people and, at the same time, offers an opportunity for the fitness sector to raise their sales and profit.

On the other hand, Senior Gym stressed that the promotion of healthy ageing is crucial in terms of reducing healthcare sector expenditure and that fitness sector could be an important partner in this process. The reason is that of the physical activity and exercising among elderly people takes mainly place in a healthcare sector and not so much in a fitness sector in Estonia. These actions are financed by the Estonian Health Insurance Fund and exercising is guided by physical therapists, not by fitness instructors and trainers. The healthcare sector cannot provide enough suitable environment (e.g. rooms) and staff for trainings, for example. Therefore, the fitness sector could be one possible and essential partner for the healthcare system, who could take over the activities that are related to exercising of elderly people. At the same time, the services provided by the fitness sector are rather expensive for elderly people (in a retirement age) today, which does not favour participation in trainings provided by the fitness sector.

The third group of questions concentrated more on the issues regarding designing and providing fitness services for elderly people. As the concept of healthy ageing does not contain only the dimension of physical activity, the respondents discussed which services the fitness sector could provide for elderly people besides physical trainings. Mostly, respondents agreed that along with the promotion of physical activity it is crucial to educate people in healthy lifestyle in general, but especially in nutrition (healthy eating), which is the basis of healthy lifestyle. Nutrition-related counselling and

lectures in nutrition were mentioned as one of the most popular ideas. Workshops, lectures and seminars on the benefits of physical activity in older age and healthy lifestyle in general were also viewed as necessary activities besides physical trainings.

In relation to elderly people, the need for physiotherapeutic counselling and plans were mentioned as one of the services that could be provided for elderly people by the fitness sector. It would require cooperation with the healthcare sector (physical therapists, family doctors) of course - bilateral cooperation and networking between these sectors was pointed out. Some of the respondents emphasised the importance of various diagnostics as well (e.g. measuring heart rate and blood pressure, body mass index, etc.).

Taking into consideration the social and mental health aspect in the context of healthy ageing, it was mentioned that the services targeted to elderly people could contain some activities for stimulating the mind, such as exercises combined with some intellectual tasks, exercising in pairs, special events for starting and ending the training season, etc. These kinds of trainings and undertakings may encourage social activity among seniors (good impact on social and mental health). One respondent (fitness instructor) pointed out that smaller groups (e.g. groups of up to 10 persons) would be more beneficial for training elderly people, because then it is possible to turn more attention to every participant in the group accordingly to his/her health condition. Senior Gym supported the idea that elderly people may need more personal approach when starting trainings, as there are various health problems, diseases, and disabilities associated with older age.

It was also mentioned by some respondents that water based trainings (e.g. exercising in water, water aerobics, etc.) would be good for elderly people, but it requires special conditions. Also, the elderly should have the opportunity to use a sauna.

Further, the respondents were asked whether providing special trainings and services for elderly people may require extra resources, knowledge, efforts, etc. for the fitness sector. The respondents reached a consensus and found that providing special services for elderly people requires special knowledge from trainers and instructors (e.g. knowledge about the changes that occur with ageing and geriatrics, etc.) which could be considered as special knowledge in senior fitness. One respondent (fitness club

manager) presented an idea that the fitness sector should motivate and keep their professionals (trainers, instructors, personal trainers, etc.) to work till older age as well so that they could age with their clients and through this experience consult the clients and be more qualified instructors for elderly people at the same time. In addition, the employees in the fitness sector stay on the labour market for a longer time and can be as role models for their clients. Some respondents claimed that the fitness sector may need more knowledge about motivating, encouraging and empowering older people, especially when it comes to those who have not trained for a long time or not at all in their previous life.

Furthermore, the respondents were asked to comment on whether they see any necessity for cooperation with some other organisations, sectors, etc. in order to design and provide fitness services for elderly people. Mostly, respondents emphasised the need for cooperation with physical therapists. It was mentioned that cooperation with (sport) psychologists could be one option to educate fitness service providers in topics of motivation issues, social and mental health issues of elderly people. As stated before, the respondents pointed out that support from the public sector would be substantial – aid for elderly people directly or via the fitness sector to provide fitness services for free or with a lower price. Also, it was pointed out that cooperation with different researchers from various fields would be interesting.

Senior Gym as a competent body in physical therapy, in turn, suggests that it is crucial to pay attention to clients` safety (also the safety of equipment), communication skills and the ability to consider the peculiarities of older people. For example, their senses such as hearing and seeing may not be that sharp anymore; it could be necessary to slow down the tempo of exercises during the training; elderly people may not bear loud music during the training. And as mentioned before by the respondents of the Delphi group, the skills of motivating elderly people would benefit in providing fitness services.

As ageing population is a worldwide phenomenon and it affects countries on various levels (demographic changes, changes in a labour market, which in turn affect economies, health and social care systems), the respondents were asked whether cooperation with the public sector is needed in order to design and provide fitness

services for elderly people. Respondents explained what kind of support the fitness sector may need to design and provide fitness services for elderly people and to motivate elderly people to be physically more active. One prevailing opinion of the respondents was that the public sector could support the fitness sector by implementing health promotion campaigns, i.e. the concept of healthy ageing should be part of national strategies, policies, and one way to promote healthy ageing is to conduct public promotion campaigns.

The second important aspect was mentioned in connection with the price sensitivity of elderly people in a retirement age. As people in a retirement age are price sensitive (e.g. in Estonia), the group also stressed that financial support from local the government level could be one tool that helps elderly people to consume the fitness services. At the same time, the fitness sector could be the target of financial support as well in order to design and provide special services for elderly people. The financial support from the public sector may be bidirectional – to support the fitness sector by being an active partner in the implementation of the healthy ageing concept on the one hand and to bring the target group and the fitness sector together on the other hand. From the government level this kind of approach would benefit in different policies that are dealing with ageing population and its impacts on the society.

Cooperation with the healthcare system was highly recommended as well. For example, cooperation between the fitness sector and family doctors was mentioned. The main idea was that family doctors (and other doctors as well) could recommend physical activity and exercising more as a medicine (“exercise on prescription”), depending on the health condition and disease condition. It requires tight cooperation between different professionals inside the medical system, and also with the fitness sector in order to create the conception and system for this kind of cooperation and, of course, it would be a change in a way of thinking that would be the challenge in this process.

The next chapter will summarise the ideas collected by the author in the context of the Delphi study and provide suggestions on opportunities for the fitness sector in the context of healthy ageing. It also provides recommendations for future researches.

### **3. RESEARCH FINDINGS AND RECOMMENDATIONS**

To understand the concept of healthy ageing and its relation to physical activity, the author collected and compared theories, materials, documents and information on various topics:

- 1) the specification of the definition of healthy ageing;
- 2) the role of physical activity in the context of healthy ageing;
- 3) the role of health promotion and the fitness sector in the context of healthy ageing.

The author prepared questions for fitness experts based on the topics that were analysed to compare the understandings, opinions and experiences of the fitness sector professionals with respect to the theoretical background of the mentioned topics. The discussion was based on the Delphi method in two rounds and was conducted in March and April 2017. Nine fitness professionals from Estonia and three fitness and healthy ageing experts from other countries (Sweden, Denmark, Hungary) took part in round one. In round two, seven Estonian respondents and one international expert (from Sweden) gave their opinions to finalise the study. In addition, the Senior Gym project was engaged as an expert in round two, but was not considered part of the Delphi study, but as a comparative opinion from the healthcare sector.

First of all, one of the tasks of the study was to gather data about respondents' contact with and knowledge of the topic of healthy ageing. Healthy ageing could be defined as an ageing process in which the person maintains a good health condition and wellbeing (physical, social, mental) (Fries, 2012; Hamer et al., 2014), while other terms such as "active ageing" and "successful ageing" could be noticed in different contexts as well. The concept of active ageing emphasises the ageing process that is committed to maintaining and raising the quality of life of a person (Fereshtehnejad & Lökk, 2014). In addition, the concept of successful ageing mentioned in this paper and used mainly in the context of gerontology and geriatrics focuses more on avoiding disabilities and

diseases, maintaining physical and mental functioning and being active in social life (Rowe & Kahn, 1987; 1998; Walter et al., 1999).

Thus, different characteristics may come to one`s mind regarding the term “healthy ageing”. “Physical activity and sport” was mentioned as the most popular term to characterise the concept of healthy ageing together with terms “healthy lifestyle” and “being socially active in an older age” by the respondents of the Delphi study. All the three terms named by respondents are directly related to the concept of healthy ageing that is proposed in this paper. Based on these responses, it could be considered and suggested that physical activity plays an important role in the process of healthy ageing. The author of this paper dares to conclude that the concept of healthy ageing could be applied in the process of designing and providing the services of the fitness sector to target elderly people as a separate target group. Furthermore, by promoting physical activity and exercising among elderly people, the fitness sector may contribute to people`s mental and social health and wellbeing in order to maintain and raise the quality of life of elderly people.

According to different studies, there are various opinions (Börsch-Supan et al., 2013; King & King, 2010; Zizza et al., 2009) as to from which age people are considered older/elderly/old. These assumptions cannot be made on the basis of a person`s chronological age only, but may be several approaches (Saks, 2016; Santonja & Lombao, 2011). When asking the experts from which age it would be necessary to promote the concept of healthy ageing, not only healthy lifestyle in general, the respondents agreed that it is important to pay attention to the process of healthy ageing already from the age of 40. The main reason for this is that in order to stay healthy in older age, it is crucial to pay attention to healthy habits already in a younger age and the 40s is the time when people should start thinking of the process of healthy ageing (Heikkinen, 1998). The author proposes that when promoting healthy ageing, two types of promotion could be distinguished:

- preventive promotion, which is targeted to younger age groups in order to pay attention to a healthy lifestyle and healthy habits in a younger age to stay healthy in older age and enjoy the benefits that come with it;

- promotion of healthy ageing in older age in order to educate elderly people on how to maintain their health and cope with daily activities.

It could be claimed that physical activity is one of the tools that helps to promote healthy ageing with the help of the fitness sector in general. As pointed out in several definitions, the aim of the process of healthy ageing is to maintain and raise the quality of life of people (Bousquet et al., 2015; Fereshtehnejad & Lökk, 2014; João & Bousquet, 2016). Also, respondents agreed that raising the quality of life of seniors should be the most important reason for promoting the concept of healthy ageing in general. Therefore, it could be claimed that the promotion of healthy ageing should focus on the benefits of healthy ageing that help to raise the quality of life of seniors.

As already mentioned, elderly people tend to be the most physically inactive age group (King & King, 2010). In order to motivate elderly people to become physically more active, especially in the fitness sector, the experts were asked which actions would help to achieve this goal. They agreed that special trainings and groups for elderly people could be the key, as well as special trainings and groups for those elderly people who have not trained before or for a long time. The author suggests that elderly people could be considered as a separate target group for the fitness sector – as demographic changes may challenge to think about this age group more in the future and this situation may offer new opportunities for fitness service designers as well. It is important to pay attention to those elderly people who are not active in the fitness sector today. Different targeting among elderly people could be one idea for designing fitness services (e.g. prevention for younger age groups, special approach from the older age, special attention to the health condition, disabilities, diseases, etc.).

In addition, the importance of health promotion was emphasised in this paper and the study. Furthermore, it was suggested that the public sector (governmental level, local governments) should support the participation of elderly people (especially in the retirement age) in fitness activities. Experts suggested that local governments could offer financial support for elderly people to participate in trainings in the fitness sector. The support could be targeted directly to people (e.g. financial support or discounts for covering the fees) or via the fitness sector (e.g. similar support could be addressed directly to the fitness club in order to provide free services for elderly people). The

author of this paper finds it necessary to analyse possible cooperation between the public and private sector in this matter, as healthy ageing could be considered as a policy instrument as well (Bousquet et al., 2015) and could help to solve the issues that are related to the ageing population (Drop et al., 2016).

As one idea regarding the health promotion, the author suggests, as one idea, that using role models in health promotion (Kasmel & Lipand, 2007) and campaigns could be one option to popularize popularise the concept of healthy ageing, as people can relate with to some good and successful examples (e.g. some popular persons, or regular people as good examples directly from the fitness sector). For example, one respondent of from the Delphi group also pointed out also, that spokesmen and role models may help to promote the concept of healthy ageing in (social) media – they set as an example as did Mr Charles Eugster, who was a famous sportsman of Great Britain and started promoting healthy ageing via his homepage (<http://www.charleseugster.net/home>) and books. and He was considered viewed as an inspirational speaker in on the topic of healthy ageing.

As physical activity is one of the dimensions of the concept of healthy ageing and healthy lifestyle contains other dimensions besides physical activity as well, there is a need for other activities and services that support healthy lifestyle and could be combined with exercising. This is the reason why the experts from the fitness sector agreed that other services besides physical exercising could be provided to elderly clients as well. It was stressed that besides physical activity, it is important to pay more attention to nutrition in the context of healthy ageing. The author agrees with the experts that nutrition-related counselling and lectures, seminars and workshops on healthy eating is could be provided by the fitness sector to elderly people in the context of healthy ageing.

The need for cooperation with other sectors and partners was discussed in the study as well. However, based on the opinions of respondents, the author recommends paying more attention to cooperation with the medical sector (physical therapists, family doctors) in order to create a network between the fitness sector and the healthcare sector. This idea is supported by Fair (2011) who says that physical therapists should be included as experts in the process of planning physical activity and exercise, especially

in case of elderly people. The main idea in this area could be as follows: “exercise on prescription” – i.e. family doctors could write the patient a “prescription” for physical activity and exercising in addition to or instead of other treatments/medicaments and transfer him/her to a fitness sector so that he/she could participate in those particular trainings that are suitable for him/her. In order to approach this kind of system, all the parties involved (family doctors, physical therapists, fitness instructors) should be appropriately qualified, which means that training and reimbursement of tuition fees is crucial (e.g. training programmes on senior fitness). Of course, this kind of networking between the fitness and healthcare sector may require controlled environment which should be supported by the public sector regulations, legislation, etc.

As elderly people are recognised as a separate target group for the fitness sector in this paper, one of the aims of the study was to discuss whether providing fitness services for elderly people may require some special knowledge, skills, equipment, etc. that should be taken into consideration in designing and providing fitness services. Experts declared that they rather agree that there is a need for some specific knowledge to provide fitness services for elderly people.

The author asked the experts to name who could support the fitness sector in the process of designing and providing services. The idea about cooperation between the healthcare and fitness sector (family doctors – physical therapists – fitness instructors) was already mentioned. Based on the opinions of respondents, the author suggests that as a result of cooperation between the fitness and healthcare sectors, teamwork-based services could be designed, especially for those elderly people who have not trained before or for a long time, or who have some health problems, disabilities, diseases, etc. that need special attention. For example, the team could consist of a fitness instructor, a nutrition specialist, a physical therapist, a (family) doctor, a physical activity counsellor, and a psychologist. The author suggests that the team could be called a “healthy ageing counselling team”. This idea is quite similar with the previous idea that could be summarised with the keyword “exercise on prescription”, while the idea of a “healthy ageing counselling team” is a bit wider approach to the support system that could consult elderly people on issues related to healthy ageing. In the author’s opinion, it

could be considered as holistic counselling and this kind of conception and approach could give further ideas to fitness service designers.

Healthy ageing is considered as policy measures (Bousquet et al., 2015; Drop et al., 2016). For this reason, the experts discussed whether and what kind of support the fitness sector needs from the public sector in order to provide fitness services for elderly people and to motivate them to be physically active and exercise more. As already mentioned, respondents agreed that the public sector could provide health promotion campaigns and financial support for elderly people so that they could participate in trainings. The author agrees that it is especially important to provide support for retired people. On the one hand, it is a strategic decision at the political level whether the state finds it important to support this kind of actions. While there are discussions in the society on how the government and the public sector should react to the aging population, one of the critical issues is the possible support for preventive healthcare solutions. According to the responses of the Delphi group, the role and support of the public sector would be appreciated mainly in three areas: health promotion; regulations, guidelines and legislation; and financial instruments. The author recommends thinking about project-based actions in this field (support from the state, EU institutions) in order to design and provide fitness services for elderly people (e.g. support for senior fitness projects, business plans and service design, trainings for fitness instructors, networking projects, etc.).

In addition to the results of the study, the author of this paper would like to point out that special trainings for elderly people that may take place outside the fitness clubs have not been mentioned so far; however, they could be considered as fitness services for elderly people. Therefore, the author takes courage to suggest other ideas for fitness services that the fitness sector may provide for elderly people:

- outdoor trainings coordinated by the fitness sector (e.g. Nordic walking in groups combined with exercising indoor and with seminars/lectures);
- training at home (it could be called “home-fitness” or “fitness at home” for example – the fitness instructor visits the client at home and suggests exercises that could be carried out at home, taking into consideration the living conditions of the client).

The author of this paper would like to bring out some ideas that could be considered as research topics in the field of healthy ageing and fitness services. This paper focuses on the opportunities for the fitness sector in the context of healthy ageing, but the author finds it relevant to study further what the possible target group of healthy ageing (elderly people) thinks about the approach that has been presented in this paper – e.g. what motivates them to become physically more active, exercise more often, and join the fitness sector. And in addition, what could be the mechanisms of motivation that would lead to changes in behaviour and lifestyle in older age. Therefore, one recommendation for further studies is to research the motivation mechanisms and behaviour patterns of elderly people in connection with lifestyle changes and find out what could be the measures provided by both the fitness sector and the public sector that would motivate them to become physically more active and exercise more often. It would be interesting to see whether these factors are the same that were revealed by the present study (e.g. special trainings/groups for elderly people, also for those who have not trained before or for a long time; financial support for participation in trainings; health promotion activities) or are there some totally different factors that would motivate them. For example, there may be significant cultural differences across countries but this would involve a large and comprehensive study.

From the perspective of service design, the author proposes to concentrate more on the process of service design and the aspects related to the specialities and specificity of fitness services (Lagrosen & Lagrosen, 2007; Liang & Fassi, 2015) in future researches. In connection with service design, it would be interesting to find out how the public health/healthy ageing promotion strategies, campaigns and guidelines could be integrated to the strategies and marketing plans of fitness sector organisations and, thus, be used in service design as well (e.g. whether the fitness sector organisation finds it more profitable to be a partner in one-time campaigns or integrate some approaches to their strategies for a longer period). Furthermore, the author proposes to research how and which technological solutions (devices) may contribute to fitness service design in case of elderly people. It could be studied in connection with the topics of motivation and behaviour change, for example.

## CONCLUSION

This paper was compiled with the aim to analyse the concept of healthy ageing with an emphasis on physical activity, and to find out how this concept could be applied as an opportunity for the fitness sector and through this target more elderly people in the future to be physically more active and exercise more often. To meet the goal of the master thesis and provide recommendations to the fitness sector, a critical literature review was provided in order to define the concept of healthy ageing for this paper, to explain the role of physical activity, and to discuss the role of health promotion and the fitness sector in the context of healthy ageing. Next, research was prepared and conducted, using the Delphi method and involving fitness experts

The researcher's goal was to find answers to the following questions:

1. How could the concept of healthy ageing be applied in the fitness sector in order to design and provide special services for elderly people?
2. What could be the mechanisms (actions, tools, etc.) that would motivate elderly people to be physically more active and exercise in the fitness sector?
3. Whether and what kind of resources the fitness sector needs to design and provide special services for elderly people?

Therefore, the author compared the theoretical studies on healthy ageing, the role of physical activity, health promotion and fitness services with responses from the Delphi study to provide recommendations and suggestions for the fitness sector in order to target elderly people by designing special services for them. In addition, some ideas about further researches were presented.

To achieve the goal of the thesis and answer the research questions, the research was planned as follows. Firstly, critical literature review about healthy ageing, the role of physical activity, health promotion and the fitness sector in the context of healthy

ageing was presented. Secondly, based on the findings from the literature review, questions for fitness experts were prepared. The study was conducted in March and April 2017, by using the principles of the Delphi method. Both Estonian and international (Sweden, Denmark, Hungary) fitness experts participated in the study. In addition, the author engaged the project Senior Gym as a physical therapy professional, but did not consider its responses as part of the Delphi study (as it is not active in the fitness sector) and used its opinions as comparison to compare and diversify the study with opinions from other sectors than the fitness sector. Data analysis followed for presenting the outcomes and results of the study. Finally, the discussion of the results together with recommendations for the fitness sector and suggestions for future research topics was presented.

The author is fully aware of the limitations of the present study that can result from the small size of the Delphi study group and the choice of the research method applied. Nevertheless, as the respondents were considered as experts in the fitness sector (and Senior Gym as an expert in physical therapy), the findings formed an informative study base which helped to reply to research questions and reach the goal of the thesis by providing recommendations to the fitness sector, and furthermore, to the public sector as well (healthcare sector, public health, local governments, social affairs), which put the concept of healthy ageing on a more wider scope and brought out the possible cooperation opportunities between different sectors.

The theoretical part revealed that there is no agreed term for “healthy ageing” in different studies and several other terms are in use (e.g. active ageing, successful ageing). In case of the term “health”, various understandings are in use as well. The author of this paper decided to choose the term “healthy ageing”, as it contains the basic information on the essence of health by highlighting the three dimensions of health (physical, social, mental), and emphasises the importance of physical health and wellbeing which is on the focus in this paper. The literature review claimed that health promotion has great importance and impact in improving personal health behaviour, so the promotion of healthy ageing was set to be the focus of the research as well, accompanied by the role of the fitness sector in the context of healthy ageing. It is important to mention that the promotion of healthy ageing could carry the idea that the

idea of promotion is to raise of quality of life of elderly people which should be the outcome of a lifestyle that contains the principles of healthy ageing.

The discussions with fitness experts confirmed that the implementation of the concept of healthy ageing may be the opportunity for the fitness sector in order to involve more elderly people as their clients. Special training groups for elderly people, especially those who have not trained before or for a long time, is one of the options available for designing new services in the fitness sector. Concomitantly, several other services could be designed and provided to the elderly people with traditional physical trainings, such as counselling and providing seminars/lectures/workshops on healthy lifestyle in general (e.g. nutrition in older age).

Designing and providing fitness services for elderly people require cooperation with other sectors as well in order to take into consideration all the needs of elderly people. It is crucial to cooperate and create networks with the healthcare sector, especially with physical therapists and family doctors. It is not less important to mention that the positive impact of physical activity and regular exercise on the social and mental health of elderly people could not be underestimated, as participation in trainings gives an opportunity to become more social and it reduces stress, depression, etc., which is important from the point of view of mental and social health.

As the concept of healthy ageing is a wider concept that is related with to the ageing population and changes in labour market, which also affect also the health and social care sector, the importance of the public sector was brought out in connection with possible cooperation opportunities with the fitness sector. The public sector could be the leading health promoter and provider of financial support for the fitness sector and elderly people (especially in the retirement age).

The current paper helps to understand the nature of healthy ageing, with an emphasis on physical activity and exercising in the ageing process. In addition, the current thesis could help the fitness sector to find opportunities to engage the concept of healthy ageing in their service design process and strategy planning. Also, this paper may give food for thought for possible cooperation possibilities with other sectors.

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## **Appendix 1. Questionnaire for Estonian fitness professionals in the Delphi Study Round One**

The concept of healthy ageing – an opportunity for the fitness sector?

Delphi Study, Round One, Questionnaire for Estonian fitness professionals

1. Have you noticed a term “healthy ageing” (also “active ageing”, “successful ageing”) in usage? In which context?
2. From which age, do you consider a people as an older? (in the context of your sphere of activity)
3. Who is your typical customer now?
4. How many of your clients are in the age group 50+? (%)
5. What kind of trainings are popular amongst elderly people in the club you are working?
6. Do you offer classes/trainings for elderly people (50+)? If you do, what kind of classes?
7. What do you think, how to motivate elderly people to be more physically active? What could be the role of the fitness sector?
8. In your opinion, what kind of trainings would be suitable for elderly people?
9. Does offering special trainings require some extra resources / efforts? (e.g. special trainings for fitness specialists)
10. Is there any reason you wouldn't offer special fitness services for elderly people? Please name.
11. What do you think is there a need for cooperation between other organizations in order to provide fitness services for elderly people? If there is, what kind of organizations should be involved?
12. What are fitness trends now in your opinion?
13. Is there anything you would like to add to this topic?

## **Appendix 2. Questionnaire for international and healthy ageing professionals in the Delphi Study Round One**

The concept of healthy ageing - an opportunity for the fitness sector?

Delphi Study, Round One, Questionnaire for international fitness and healthy ageing professionals

1. Have you noticed a term “healthy ageing” (also “active ageing”, “successful ageing”) in usage? In which context?
2. In your opinion, is it important to promote a healthy ageing concept? Why?
3. What do you think does your organization benefit the healthy ageing of people? How?
4. What would motivate older people (50+) to be more physically active?
5. In your opinion, is there a need for cooperation between different organizations in order to provide services in fitness clubs for older people (50+)? If there is, what kind of organizations should be involved?
6. What kind of changes and trends in society may affect the development of the fitness sector? How?
7. Is there anything you would like to add to this topic?

### **Appendix 3. Questionnaire for the Delphi Study Round Two**

The concept of healthy ageing - an opportunity for the fitness sector?

Delphi Study, Round Two

When you think of “healthy ageing”, which terms come to your mind?

This list shows the terms mentioned by the respondents.

- Ageing population
- Healthy lifestyle
- Physical activity and sport
- Being socially active in older age
- Changes in a labour market
- Preventive healthcare for seniors
- Cosmetic products
- Fitness-wellness services
- Academic literature

1. In the questionnaire:

- Please name which top **THREE** terms you do consider as characteristics of the concept of healthy ageing

2. In your opinion, from which age it would be necessary to promote the concept of healthy ageing (not only healthy lifestyle in general)?

- 40 and over
- 50 and over
- 55 and over
- 60 and over
- 65 and over
- Other

### **Appendix 3 continued**

What do you think, how can the fitness sector motivate elderly people to be more physically active?

These ideas were suggested by the respondents:

- Special trainings/groups for elderly people
- Special training/groups for elderly people who haven't trained before or for a long time
- Special prices for elderly people
- Special health promotion campaigns for elderly people
- Support by local government (e.g. financial support for participating in trainings)
- Special senior gyms

3. In the questionnaire, please comment on following:

- Which THREE of these ideas do you consider the most effective (starting from the most effective)?
- If you have some idea in addition, please name.

In your opinion, why it is important to promote healthy ageing?

These ideas were suggested by the respondents:

- To raise the quality of life of seniors
- To reduce healthcare expenditures
- To sustain working ability of elderly people longer (in terms of increasing retirement rate)

4. In the questionnaire, please comment on the following:

- Which one do you find the most important reason?
- Are any reasons missing? Please name.

5. What services beside physical trainings could the fitness sector offer especially for elderly people?

### **Appendix 3 continued**

Providing special trainings and services for elderly people may require extra resources/knowledge/efforts for the fitness sector. Yes or no?

These answers were mentioned by the respondents:

- Yes, the qualification and special knowledge related with senior fitness is necessary.
- No, it does not require any special training for fitness trainers and instructors.

6. In the questionnaire, please comment on following:

- If you think “Yes”, please name, what are the most important skills, knowledge, equipment etc. that would help to offer special trainings and services for elderly people? Who could support the fitness sector?

Do you think there is a need for cooperation with the public sector in order to provide fitness services for elderly people? If you do think there is a need, how could the public sector?

These ideas were suggested by the respondents:

- Public sector could provide guidelines and programmes in order to promote healthy ageing and physical activity. E.g. public health campaigns, legislation.
- Clients over retirement age are price sensitive, so support by local governments in this field would be salutary.
- No.

7. In the questionnaire, please comment on the following:

- What kind of support the fitness sector would need from the public sector for providing fitness services for elderly people and motivating them to be physically active and exercising more?

#### **Appendix 4. Description of the project Senior Gym**

Project “Senior Gym” (<http://www.ajujaht.ee/en/top-30/>)

Senior Gym is a project aiming to popularize regular physical activity among middle-aged and elderly population and reduce costs on healthcare as a result.

The core of our project is opening a gym suitable for middle-aged and elderly people for supervised regular physical activity. This also involves weight training among elderly- a novel approach to senior training in Estonia. Weight training is a scientifically proven method to reduce risk of falling and improve independent mobility in elderly population.

We wish to operate as a trustworthy partner institution to the medical system, where we implement the “exercise on prescription” by general practitioner model as it is known in the Nordic countries. It is our ambition to be a physical activity center every general practitioner knows and feels confident to refer their patients to.

Our target group is middle-aged and senior population, people who wish to preserve their health, working ability or independent coping. Our clients may have chronic illnesses but they are not in need of active rehabilitation services. We make it easy, safe and motivating for a person to pick up a more active lifestyle.

We offer guidance from physical therapists and physical activity counselling, our pilot will launch in Tartu but we are hoping to expand to Tallinn as well.

The Senior Gym project is lead by physical therapists of Tartu University Hospital and Tartu University MSc students.

## RESÜMEE

### TERVISLIKU VANANEMISE KONTSEPTSIOON KUI VÕIMALUS FITNESS-SEKTORILE

Kadri Orula

Maailma rahvastik vananeb – see tähendab, et vanemaealiste inimeste osakaal kasvab. Erinevate hinnangute kohaselt ületab vanemaealiste inimeste arv ühe miljardi piiri 2020. aastal, moodustades siis umbes 30% kogu maailma rahvastikust (Drop, Jedrych, Baranska, Firlej, & Janiszewska, 2016). Nimetatud fenomen toob kaasa muudatusi nii majanduses kui ka sotsiaalpoliitilisel tasandil, mis omakorda nõuab mitmeid sekkumismehhanisme, et uudse olukorraga kohaneda. Näiteks paneb vananev rahvastik surve tervishoiu süsteemidele, suurendades nõudlust erinevate tervishoiuteenuste järele, mis on seotud vananemisega seonduvate haiguste ja seisunditega (*Ibid.*, 2016; Oxley, 2009). Inimesed elavad kauem ning seetõttu on oluline elada võimalikult tervena võimalikult kõrge eani, et olla aktiivne nii sotsiaalselt kui ka tööalaselt ja mis kõige tähtsam, säilitada elukvaliteeti nii kaua kui võimalik (Fereshtehnejad & Lökk, 2014). Tervislikul elustiilil (füüsiline aktiivsus, tervislik toitumine, hea uni, stressi vältimine) on arvestatav mõju inimese tervislikule seisundile, et püsida võimalikult hea tervise juures kogu eluaja jooksul (Kasmel & Lipand, 2007; Oxley, 2009). Tervislikult vananemine võib olla üks võimalus nii inimeste kui ka ühiskonna jaoks tulla toime muutustega, mida põhjustab elanikkonna vananemine ning säilitada ja miks mitte isegi tõsta vanemaealiste elukvaliteeti. Nimetatud põhjusel arvab töö autor, et oluline on leida erinevaid võimalusi, kuidas inimesed oleksid võimalikult kaua võimalikult terved. Autor keskendub antud töös füüsilisele aktiivsusele ja treenimisele kui ühele tervisliku vananemise protsessi tegurile. Lähtuvalt sellest, et töö rõhuasetus on füüsilisel aktiivsusel ning treenimisel, uurib autor, milline osa võiks olla fitness-sektoril tervisliku

vananemise kontekstis ja milliseid perspektiive oma teenuste disainimisel ning arendamisel võiks tervisliku vananemise kontseptsioon fitness-sektorile pakkuda.

Magistritöö eesmärk on uurida tervisliku vananemise kontseptsiooni keskendudes füüsilise aktiivsuse rollile ning selgitada välja, kuidas fitness-sektor saaks seeläbi kaasata rohkem vanemaealisi. Eesmärgi saavutamiseks on magistritööle seatud järgmised ülesanded:

1. Uurida arusaamist tervisliku vananemise kontseptsioonist ning selgitada seotud terminoloogiat (näiteks: aktiivne vananemine, edukas vananemine).
2. Määratleda füüsilise aktiivsuse roll tervisliku vananemise kontekstis.
3. Analüüsida terviseedenduse ja fitness-sektori rolli tervisliku vananemise kontekstis.
4. Teha soovitusi fitness-sektorile, kuidas rakendada tervisliku vananemise kontseptsiooni oma strateegiatel ning teenuse disaini protsessis.

Töö tegeleb seega tervisliku vananemise kontseptsiooniga, keskendudes füüsilise aktiivsuse ja treenimise, terviseedenduse ning fitness-sektori rollile. Autor eeldab, et erialasel kirjandusel põhineva teoreetilise analüüsi (teooriate vastandamine ja võrdlemine) ning empiirilise analüüsi tulemusel on võimalik teha soovitusi fitness-sektorile tervisliku vananemise kontseptsiooni rakendamiseks teenuste disainimise protsessis, et kaasata seeläbi klientidena rohkem vanemaealisi. Autor esitab eesmärgi saavutamiseks järgmised uurimisküsimused:

1. Kuidas tervisliku vananemise kontseptsiooni oleks võimalik fitness-sektoris rakendada, et disainida ning pakkuda spetsiaalseid teenuseid just vanemaealistele?
2. Mis võiksid olla meetmed (tegevused, vahendid jmt.), mis motiveeriksid vanemaealisi olema füüsiliselt aktiivsemad ning osalema fitness-sektoris?
3. Milliseid ressursse fitness-sektor vajab, et disainida spetsiaalseid teenuseid vanemaealistele?

Et leida vastused uurimisküsimustele, on autor seadnud järgmised uurimisülesanded ja etapid:

1. Erialakirjanduse kriitiline analüüs selgitamaks tervisliku vananemise kontseptsiooni sisu, keskendudes füüsilise aktiivsuse ja treenimise rollile, samuti arutlemine terviseedenduse ja fitness-sektori rolli üle tervisliku vananemise kontekstis.

2. Delphi uuringu ettevalmistamine ja läbiviimine.
3. Andmete analüüs ja tulemuste esitamine.
4. Arutelu tulemuste üle ning soovitude esitamine fitness-sektorile tervisliku vananemise kontseptsiooni rakendamiseks ning spetsiaalsete fitness-teenuste disainimiseks vanemaealistele.

Erialakirjanduse põhjal läbiviidud teoreetilise analüüsi alusel koostas autor uuringu küsimused. Uuring viidi läbi kasutades Delphi meetodit ning uuringusse kaasati fitness-sektori esindajad (fitness-klubide juhatajad, rühmatreenerid, personaaltreenerid) nii Eestist kui ka Rootsist, Taanist ja Ungarist, kust kaasati fitnessi ja tervisliku vananemise eksperdid. Uuring viidi läbi märtsis ja aprillis 2017. Lisaks kaasas autor võrdleva arvamuse eesmärgil Eesti projekti Senior Gym, mille eesmärgiks on populariseerida kesk- ja vanemaealiste liikumisaktiivsust ja vähendada seeläbi kulutusi tervishoiusektoris. Projekti algatajad on ise tegevad füsioteraapia valdkonnas ning puutuvad igapäevaselt kokku vanemaealiste füüsilise aktiivsuse temaatikaga. Autor rõhutab siiski, et projekti Senior Gym arvamust ei käsitleta mitte Delphi uuringu osana, vaid võrdleva arvamuse, et anda tööle lisaväärtust. Uuringu läbiviimise järel esitab autor tulemused ja annab nende põhjal fitness-sektorile soovitusi ja ideid tervisliku vananemise kontseptsiooni rakendamiseks teenuse disainimisel.

Mõistele „tervislik vananemine“ ei ole välja pakutud ühte konkreetset selgitust ning käibel on ka mitmeid sarnaseid mõisteid nagu „aktiivne vananemine“ ja „edukas vananemine“. Autor kasutab töös mõistet „tervislik vananemine“ põhjusel, et antud definitsioon toob välja ning seob omavahel inimese füüsilise, vaimse ja sotsiaalse tervise ning heaolu. Tervislikku vananemist võib seega defineerida kui vananemise protsessi, mille jooksul inimene säilitab heana nii füüsilise, vaimse kui ka sotsiaalse tervise. Võrdluseks võib tuua, et aktiivse vananemise mõiste selgitamisel lisandub kolmele tervise dimensioonile ka elukvaliteeti puudutav aspekt ehk isik säilitab lisaks tervisele vananemisprotsessis ka elukvaliteedi. Edukast vananemist räägitakse peamiselt gerontoloogia ja geriaatria kontekstis, keskendudes haiguste ja puuete vältimisele, heale kognitiivsete ja kehaliste funktsioonidel säilimisele ning elus osalemisele. Kui rääkida füüsilise aktiivsuse tähtsusest tervisliku vananemise protsessis, siis saab väita, et

igapäevane füüsiline aktiivsus ning lisaks ka teadlik treenimine on olulisel kohal, säilitamaks head tervist võimalikult kõrge eani, sh ka vaimset ja sotsiaalset. Seetõttu on oluline leida võimalusi motiveerimaks vanemaealisi inimesi olema füüsiliselt rohkem aktiivne. Terviseedendus on üks protsess ja tegevuste kogum, mille abil inimesi füüsilise aktiivsuse kasuteguritest teavitada, suurendades nende omavastustust oma tervise eest suunates neid kujundama oma elustiili vastavalt juhistele. Et terviseedenduse protsessi on tavaliselt kaasatud erinevad sektorid, siis võib väita, et vanemaealiste füüsilise aktiivsuse osas saaks siin olulist rolli mängida ka fitness-sektor, pakkudes spetsiaalseid teenuseid eakatele.

Uuringu tulemusel leiti vastused seatud uuringuküsimustele. Delphi meetodil põhinevas uuringus osalenud fitness-sektori esindajad leidsid, et kui rääkida tervislikust vananemisest, siis saab selle protsessi iseloomulikus osaks lugeda kindlasti füüsilise aktiivsuse, tervisliku eluviisi ning ka aktiivse osalemise sotsiaalses elus. Seega leiti, et tervisliku vananemise kontseptsioon sobib oma olemuselt hästi raamistikuks, mis omakorda aitab mõtestada eakatele suunatud fitness-teenuseid ja pakub võimalusi nende propageerimiseks. Ühtlasi leiti, et teavitust tervisliku vananemise osas võiks alustada juba alates 40-ndatest eluaastatest ning seda just ennetava meetmena. Samas on väga erinevaid arvamusi, mis vanusest alates loetakse inimest vanemaealiseks või vanaks ning sõltuvalt lähenemisest saab teha ka otsuseid konkreetsete teenuste disainimisel (kas teenusel on ennetav iseloom või on tegu juba vanemaealise inimese treenimisega, kes vajab teenust, et tulla toime näiteks erinevate igapäevaste toimingutega). Seetõttu leidsid uuringus osalenud eksperdid, et vanemaealisi motiveeriksiki enam just spetsiaalselt neile loodud treeningud ja treeninggrupid ning eraldi toodi välja, et oluline on läheneda eraldi neile vanemaealistele, kes pole üldse või ei ole pikka aega treeninud. Samuti märgiti olulise tegurina vanemaealiste füüsilise aktiivsuse suurendamisel ja treeningutesse kaasamisel ära terviseedenduse tähtsus, mis on koostöökoht avaliku sektoriga. Lisaks leiti, et riik ja/või kohalik omavalitsus võiks toetada rahaliselt vanemaealiste treeningutes osalemist (just pensionäre, kes on väga hinnatundlik sihtgrupp).

Et tervislik eluviis ei koosne ainult füüsilisest aktiivsusest, siis toodi ekspertide poolt välja, et lisaks treeningute pakkumisele saaks fitness-sektor panustada ka muude

teenustega, näiteks vanemaealiste toitumisalane haridus ja nõustamine. Lisaks peeti eakate puhul oluliseks koostööd fitness-sektori ja tervishoiusektori vahel, tuues välja füsioteraapia ja fitness-teenuste kombineerimise vajaduse ning ka võimaliku koostöö perearstidega, kes võiksid olla võimelised soovutama vanemaealistele sobivaid treeninguid ning neid vastavatesse tundidesse ka suunama. Koostöö tervishoiusektoriga oli ka üks peamine aspekt, mille osas fitness-sektor vajaks kõige enam tuge, et pakkuda kvaliteetset vanemaealistele suunatud teenust. Juba eelpool mainitud sektorite vahelise koostöö osas rõhutati jätkuvalt ka riigi rolli vanemaealiste füüsilise aktiivsuse propageerimisel ja toetamisel.

Kokkuvõtvalt võib kinnitada, et tervisliku vananemise kontseptsioon, mis iseenesest vajab veel kindlasti põhjalikumalt uurimist ja rakendamiseks väljatöötamist, saab olla üks raamistik, mis toetab ja aitab fitness-sektoril disainida ja pakkuda spetsiaalseid teenuseid vanemaealistele, aidates seeläbi kaasa eakate füüsilise aktiivsuse propageerimisele ja kasvule, samas leides sektori jaoks võimalusi uu(te sihtgruppide kaasamiseks. Autor leiab, et antud töö raames leiti seatud uurimisküsimustele vastused ning magistritöö eesmärk täideti. Autor soovis eeskätt luua esmase raamistiku, mille kontekstis saaks juba tulevikus edasi uurida konkreetsemaid võimalusi teenuste disainimiseks fitness-sektoris.

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