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Innovative cross-sectoral training kit for professionals working with elders (caregivers and physical instructors)



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Introduction

Context

This material is created within the project entitled Innovation and dynamic learning for caregivers, social workers and trainers specialized in physical education of elders, through cross-sectoral approach of both CVT fields, project no 2022-1-RO01-KA220-VET-000089776. The project was cofunded by the European Union, under the ERASMUS+Program, Key Action 2 – Partnerships for cooperation, action type KA220-VET - Cooperation partnerships in vocational education and training. This intellectual output was created by a multidisciplinary team of experts from the partner organizations which implemented the project, namely: Asociația Global Help (leader of the partnership, Romania), Universitatea din Craiova (Romania), Euroform RFS (Italy), Fundació Universitària Balma (UVic Spain), Home Hope Ltd (Bulgaria).

The present project is complementary to a previous project financed also under Erasmus+ program (STRACOV, “Strategic cooperation in the field of elderly care vocational training focusing on involvement of social-economic actors”, project no 2018-1-RO01-KA202-049507”) which supported the innovation in the field of elderly care training in four European countries-Romania, Bulgaria, Italy and Spain. While the materials dedicated to CVT in the first project addressed elderly care from an integrative perspective but in a more general manner, the present project isolates a topic that deserves further study: how to train the professionals in the field to maintain the physical tone and wellbeing of elders they assist.

Aim of the training kit

The training kit starts from two modules of the general curricula of the elderly caregivers’ qualification (Ensuring the comfort and Mobilization techniques) and will develop the subject of increasing physic tone of the elders, maintain general functional capacity, maintaining musculoskeletal integrity, for preventing certain diseases, and ensuring mental tone and wellbeing for increasing the quality of life. The complex kit is composed by the present material in digital format accompanied by 4 hours of graphic and video materials with subtitles in partners’ languages, allowing to learners from Romania, Bulgaria, Spain and Italy to learn more and to better work to any of these



countries on the topic of wellbeing and improving physical status of the elders. The DVD will be created following the structure of this training material. Each learner that will go through this training kit will learn the basic principles and methodology of physical activity in old age. He/she will gain a realistic insight of how a program should be shaped according to the elder's status and conditions (autonomous/semi-autonomous). He/she will find about different materials, devices, equipment and applications used in the field. They will learn about pathologies, restrictions and ways to motivate elders to take action and to eliminate sedentarism behaviour, which is on the top of risk factors of global mortality. Thus, they will provide better care services and they will become more attractive human resources for a wide range of employers in social care: NGOs, day centers for leisure or recovery, gyms, nursing homes etc. The training kit will get to at least 500 relevant organizations (in DVD format) and to other people who will subscribe to the platform for online learning – during project time.

The content start from simple to complex, the first two modules answer the question of WHY? (Why should the elderly do physical activity?) and enable readers with scientific arguments, the third one shows the caregivers and physical instructors HOW to start the process, how to motivate the older adults to start the physical activity, to break the barriers of sedentarism, and the four following ones actually show them WHAT should be done (what type of exercises, frequency, intensity etc); the last module explores more complementary activities (energizers, exercises for maintaining mental tone).

Summary of the modules

The first module of the training kit delves into the aging phenomenon, clarifying concepts and the elderly's approach and attitude towards physical activity. It offers insights into the unprecedented demographic shift in the EU and examines individual-level aging indicators. It covers the European Strategy on Active and Healthy Ageing, which guides member states in promoting these aspects. The module suggests reevaluating caregiver qualifications in light of active aging, including low-impact physical activity for beneficiaries. Additionally, it introduces classic concepts like physical activity, fitness, exercise, sedentary behavior, and inactivity, highlighting their changes with age through research evidence. The module underscores the contrast between positive elderly attitudes toward physical activity and the prevalence of



unhealthy sedentary behavior. Finally, it addresses external and personal factors influencing physical activity in old age.

Module no 2 examines sedentary behavior and strategies to counteract it among older adults. It explores the negative impacts of sedentarism or inactivity on physical and mental health (which ranks the fourth place in the top of major risk factors for global mortality), emphasizing the prevalence of inactivity among older adults in European countries. The module suggests tailored physical activity guidelines for individuals aged 65 and above, focusing on gradual increases, personalized goals, and light-intensity activities. Strategies to break sedentary habits, collaboration between specialists in care facilities, and address frailty are highlighted. The bibliography offers supporting sources for the module's insights. The methodologies for putting into practice these strategies will be analysed extensively in chapters 4-8.

Module no 3 explores the motivational area and the age psychology applied in working with elderly people. It presents different scientific approaches on age psychology or development of ages, and it enables the caregivers with a lot of tools for verbal, non-verbal communication techniques, empowerment techniques and a deep understanding of the needs and changes in old age. The modules reinforce the idea that PA plays an essential role in building a positive identity during ageing. This chapter presents to the learner the most appropriate way of presenting/promoting physical activity to an older person (e.g, avoiding intimidating image of senior professional athletes) and setting goals in the most realistic way possible.

The Module no 4 enables caregivers and physical instructors who would like to work in a geriatric institution to a diversity of tools for screening the beneficiary physical fitness before participation in PA. It includes examples of questionnaires and 7 tests widely used by specialists (such as Chair stand test or 6-Minute walk test, which are annexed at the end of this training material). It also gives the reference values/ranges that are optimal for man or women in different interval of age (65-69, 70-70, 75-79 etc) for a proper assessment. It also presents WHO ICOPE App that may be used for initial assessment and for monitoring the health status and functionality of participants in the PA program. It also offers guidance on the accessibility of activities from selecting the appropriate locations, ensuring safety and comfort for participants to creating the atmosphere and ensure hygiene and cleaning. It also shows the way a caregiver may cooperate with other specialists (like physical education/therapist) in order to



gather proper information for assessment or to prepare the specific activity. After older adults have learned their exercise routine, the caregiver becomes a valuable support resource in ensuring their commitment to the program over time.

Modules no 5, 6, 7 and 8 cover a wide range of exercises to be performed in a safe way by older adults. Module no 5 includes endurance activities which make the cardiorespiratory system stronger and more fit, module no 6 focuses on strengthening activities (resistance training) as an effective modality to improve muscle function, functional performance, and health parameters in older adults. Module no 7 provides neuromotor activities that incorporate different motor skills, including balance, coordination, gait, agility, and proprioceptive training. Module no 8 presents flexibility/stretching and mindfulness activities for seniors. All the 4 modules follow a unitary structure: introduction, specific benefits, type of activities, duration and frequency (minutes per week, minutes per session, how often, repetitions and sets), intensity, progression, examples of specific activities for older people, assessment, special considerations (if the case).

Module no 9 gives a complementary set of tools to the caregiver, in order to maintain the mental tone and comfort of the elderly. After this module, the caregiver will learn better to ensure active relaxation daily and to maintain the concentration or memory capacity of the beneficiary. It starts with simple techniques (in domestic atmosphere– how to organize the space for relaxing activities) to attention and concentration activities (such as word games, concentration games) or exercises for abstract thinking and verbal comprehension (concept mapping, riddles and Brain Teasers etc) or tasks for sorting and classifying information (organizing Photos or Documents, sorting by Size, Shape, or Color etc) or more complex problem-solving games. It also brings ideas and examples of activities to stimulate curiosity, creativity, and assertive communication with mutual benefits for the elderly and for their caregivers and families during their social interaction.

MODULE 1

The ageing phenomenon.

Conceptual clarifications and the attitude of the elderly towards physical activity



Image 1. Source: <https://worldmigrationreport.iom.int/wmr-2022-interactive/>



Introduction

This module delves into the multifaceted aspects of the aging phenomenon, spanning from individual experiences to broader societal implications. Initially, we provide an encompassing view of chronological, biological, and psychological aging. Additionally, we examine global population aging as a demographic trend, juxtaposed with the imperative of cultivating active aging through physical engagement and a wholesome lifestyle. The repercussions of aging are elucidated, alongside the substantial merits stemming from consistent physical activity, which possesses the potential to mitigate both physical and cognitive manifestations of aging.

Subsequently, our focus shifts to the intricate interplay between physical activity and an array of personal and external determinants. Beyond personal predispositions such as gender, age, habits, and educational background, external forces including cultural, social, and political contexts exert notable influence over activity levels. This comprehensive exploration sheds light on the intricate network of factors that either facilitate or impede physical activity participation.

1.1. Background on the ageing phenomenon

Ageing is the gradual natural process involving changes in the body's organs, tissues, and cells, leading to old age characterized by weakened organism and slowed physiological functions. This phase is marked by physical and cognitive decline. Old age's onset at 65 is linked to retirement, not just biological factors. Biological age relates to changes common in a given age group due to lifestyle, illness, or other factors. The ageing process can be accelerated by *environmental* factors (air pollution, exposure to toxic and irritating substances or materials, excessive exposure to UV rays) and *personal habits* (smoking, alcohol, drug abuse, excessive stress and an unhealthy diet rich in fat, sugar and junk food), while psychological age reflects behavior regardless of chronological age.

Old age includes the following two subdivisions: advanced adulthood and late adulthood:

- Advanced adulthood (60-75);
- Late adulthood (over 75 years old).

As we advance in age, it is essential to recognize that the ageing process is multidimensional it is influenced by a complex interaction of biological, psychological, social, and environmental factors.

It's also important to highlight that population ageing is a global demographic phenomenon especially in Europe with implications for social and economic welfare systems. In this context, European and global strategies have been established to address the challenges of population ageing and promote active and healthy ageing. One example of these strategies is the United Nations' Agenda 2030 (Ministry of Social Rights, Agenda 2030) for Sustainable Development, which includes the Sustainable Development Goals (SDGs).

Map of the Europe population of 65+, %

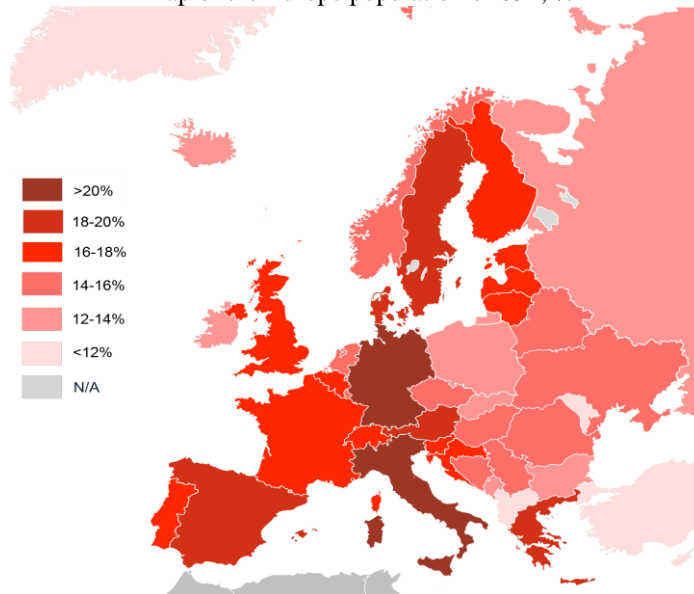


Image 2. Source: [University of Valencia -Facultat de Ciencies Socials](#)

The Sustainable Development Goals (SDGs) provide a global roadmap for addressing socio-economic, environmental, and health challenges, including population aging. Within these strategies, the importance of physical activity and a healthy lifestyle in the aging process is recognized. Regular physical activity can have numerous benefits for older adults, including improving cardiovascular health, muscle strength, mobility, balance, and cognitive function. Furthermore, physical activity can help prevent and control chronic diseases, such as cardiovascular diseases, diabetes, and osteoporosis, which are common in old age.

Regarding European and global strategies to address population aging and promote active and healthy aging, it is important to highlight some of the implemented actions and policies. In Europe, the European Strategy on Active and Healthy Aging has been developed with the aim of providing guidance to member states in promoting active and healthy aging. This strategy focuses on four key areas: health and healthcare, enabling environments, active participation, and security. It seeks to encourage the participation of older people in society, promote autonomy and independence, and ensure access to quality healthcare services (European Commission, 2022).

At a global level, the World Health Organization (WHO) has developed the Global Strategy and Action Plan on Aging and Health. This strategy aims to provide a framework for the development of policies and programs that promote healthy aging worldwide. It focuses on areas such as promoting healthy lifestyles, disease prevention, access to healthcare services, creating age-friendly environments, and improving care and support for older persons.

In the context of the Sustainable Development Goals (SDGs), several objectives are directly related to aging and the health of older persons, which are detailed below:

Goal number 3: "Good Health and Well-being"

- *Access to quality healthcare services:* For older persons, access to quality healthcare services is essential. This includes preventive healthcare, diagnosis and treatment of chronic diseases, as well as long-term care services when necessary. Ensuring that older persons have access to adequate healthcare services is fundamental to their ongoing health and well-being.
- *Prevention and treatment of diseases:* Aging is often associated with a higher risk of chronic diseases such as cardiovascular diseases, diabetes, and neurological disorders. SDG 3 aims to prevent these diseases through the promotion of healthy lifestyles and access to preventive healthcare services. Additionally, it focuses on ensuring that older persons receive appropriate treatment and palliative care when necessary.
- *Promotion of mental health:* Mental health is an important component of well-being in old age. SDG 3 also addresses the promotion of mental health, recognizing that mental health concerns can be common among older persons. It promotes awareness, prevention, and adequate care for mental health disorders in this population.



Goal number 11: "Sustainable Cities and Communities"

This goal focuses on creating safe, accessible, and inclusive environments for all people, including older adults. Here is more information about its relationship with aging:

- *Designing safe and accessible environments:* As people age, they may face mobility and accessibility challenges. SDG 11 promotes the design of urban and community environments that are safe and accessible for people of all ages. This includes creating infrastructure that allows older adults to move with ease and safety within the community.
- *Social participation:* Social participation and inclusion are crucial aspects of well-being for older persons. This goal aims to encourage the active participation of older adults in community life, enabling them to contribute to society and maintain meaningful social connections.
- *Access to basic services:* Access to basic services such as healthcare, transportation, adequate housing, and recreational activities is essential for the quality of life of older persons. SDG 11 addresses the importance of ensuring that these services are available and accessible to all people, regardless of their age.

Together, these two Sustainable Development Goals (SDGs) recognize the importance of addressing the needs of older persons in terms of health, well-being, mobility, and social participation, with the aim of creating sustainable and inclusive communities where people of all ages can thrive. This is essential to ensure that population aging occurs in a healthy manner and that older persons enjoy a high quality of life.

Currently, in Spain, Italy, Romania, and Bulgaria, the understanding and implementation of the Sustainable Development Goals (SDGs) remain a significant focus in policy and society. These countries recognize that the SDGs provide a global framework for addressing a range of socio-economic, environmental, and health challenges and are committed to their fulfilment. Below, will provide information on how these goals are addressed in the mentioned countries and their progression as of the current date (*source: Global Compact Spanish Network, June 12, 2023, "How is the European Union progressing on the 2030 Agenda?"*).



Spain has maintained its focus on ensuring a healthy life and promoting well-being for all ages. Access to quality healthcare remains a priority, and efforts have been made to reduce health inequalities, especially among different regions of the country. It has also worked on sustainable urban planning and improving the quality of life in its cities. The country has developed an elderly care system with a wide range of services, including care homes, day centers, and home care services. Investments are ongoing to improve the quality and accessibility of these services. Prevention and health promotion programs targeting the elderly population, including physical activities and nutrition programs, have been implemented. An example is the "Active Aging" program, which focuses on promoting healthy and active aging. It is developed at the regional and local levels in collaboration with health and social services authorities, offering a wide range of activities and services designed to keep older people physically and mentally active. (Source: Official website of the Community of Madrid, 2023).

Italy has continued to focus on health promotion and disease prevention, implementing policies to address specific health issues, including the aging population. The country emphasizes the importance of maintaining healthy lifestyles, including a balanced diet and physical activity. Italy is committed to improving the quality of life for older adults through care services and active aging programs.

Romania has improved its healthcare system and certain progress has been made also in social care system, and it is working on disease prevention and the promotion of healthy lifestyles, particularly in addressing specific health challenges in rural areas. Prevention programs for diseases and healthy lifestyles among older adults are promoted. Special funds through POR program have been granted in 2017/2018 for social care infrastructure (construction of day centres for elderly) and similar funding was launched in 2023 through PNRR, Component 13 – Social reforms, Investment I4 (encouraging public-private partnerships).

Bulgaria has worked on improving healthcare and promoting disease prevention. In 2023, public health programs have been implemented, addressing specific health challenges. The country is focused on improving the health of all age groups but has placed particular emphasis on enhancing care for older people, including long-term care services and the promotion of independent living. Bulgaria emphasizes the importance of physical activity and healthcare in older age.