Wien Klin Wochenschr (2019) 131:241–243
https://doi.org/10.1007/s00508-019-1513-6

Wiener klinische Wochenschrift
The Central European Journal of Medicine

Implementation of patient-centered physical training for older people accessing routine health care

Thomas Ernst Dorner

Received: 15 April 2019 / Accepted: 2 May 2019 / Published online: 21 May 2019

Health care for aged people represents a major challenge for health care systems and the whole society. Firstly, the older population is growing, both in absolute as well as in relative numbers. Secondly, medical care for older people is often complex due to a variety of health impairments that typically occur with age, such as hidden diseases and multimorbidity. As comprehensive care for aged people does not only require medical care, but also management of social, psychological, lifestyle-related, and environmental factors, a multidisciplinary, intersectorial, and integrated approach is required in care of older people. Thirdly, the relevant health outcomes and prevention of adverse events differ in older people compared to the general population. In the general population the most important aims of prevention are focused on preventing chronic diseases which often need decades to develop, preventing progression of asymptomatic diseases through early detection, and preventing premature mortality. In aged people, however, it is more important to prevent complications through managing diseases and preventing dependency, social decline, loss of quality of life, institutionalization, hospitalization, and also premature death.

Physical training, as a dimension of physical activity, with the aim to achieve physiological adaptations and functional improvements, is an effective tool in preventing a huge variety of adverse outcomes in older people. These outcomes include biological, psychological, and social declines, as well as health threats that result from declines in all three dimensions of health. The role of physical training in prevention in aged persons is depicted in Fig. 1. The health effects of physical training in older populations are shown in review articles, one in terms of frailty status, muscle strength, physical performance, and muscle mass [1], and the other in terms of depressive symptoms [2].

According to national and international guidelines, all adults, and also older people should engage in aerobic physical activity at a minimum of 150 min per week with at least moderate intensity, and additionally have muscle strengthening activities at least twice a week [3, 4]; however, in the Austrian population aged 65 years and older, only approximately 45% fulfil the aerobic and 33% the muscle strengthening recommendations [5]. How important fulfilling these recommendations in the general population (also including younger age groups) are, in frailty prevention in older age groups was shown in a correlation study using data from 11 European countries [6]. In a cross-sectional study with more than 3000 subjects from the general Austrian population aged 65 years and older a clear association was shown between fulfilling the aerobic as well as the muscle strengthening recommendations with managing the activities of daily living (ADL), such as getting up, personal hygiene and eating, and instrumental ADL (IADL), such as doing household work, preparing meals, communicating, and manage finances and one's own medication [7].

Many of the health problems of older people are often unrecognized because they do not fit into classical organ-based disease categories, or due to shame or stigma not actively reported by patients. They are therefore inadequately addressed, or untreated in health care; however, these problems have major impacts on the quality of life and independency. Examples for such hidden illnesses are declined cognitive function, bad mood, nutrition problems, gait disorders, functional disabilities, falls, frailty, and so-

T. E. Dorner (✉)
Department of Social and Preventive Medicine,
Centre of Public Health, Medical University Vienna,
Kinderspitalgasse 15/I, 1090 Vienna, Austria
thomas.dorner@meduniwien.ac.at

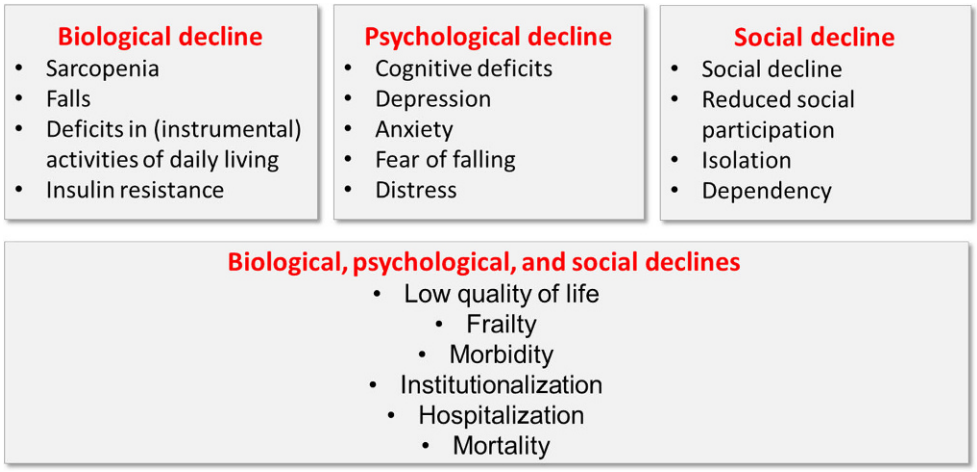

Fig. 1 Physical training as a tool for prevention of adverse outcomes in biological, psychological, and social dimensions

cial isolation. Thus, it is necessary to actively search for such conditions. There is a clear consensus that this is ideally performed by means of different tools within a comprehensive geriatric assessment, carried out by an interdisciplinary team, including medical doctors, nurses, social workers and therapists with various backgrounds. A geriatric assessment is, however, only meaningful (1) if this results in a geriatric treatment plan based on the findings of the geriatric assessment, (2) if the response to the treatment is monitored and (3) if the treatment plan is revised according to the findings of a geriatric re-assessment.

For the majority of health conditions evaluated in the geriatric assessment, physical training is one of the most important options in treatment. Therefore, the implementation of physical training in the health care setting or at least connecting health care with settings where physical training can be performed with high quality and tailored to the needs of older people, is one of the most important consequences of a geriatric assessment and a good example for what integrated care would mean. In Kosovo, such a project has been launched, with a regionwide geriatric assessment of people aged 65 years and older and with type 2 diabetes mellitus, where the clinical consequences, an individual care plan and appropriate treatment are planned simultaneously [8].

Primary care is the level of health care where the patients with all their medical, psychological, and social resources and health burdens are the focus, rather than their respective diseases. Therefore, it would be ideal to implement a geriatric assessment in primary care, similarly to regular preventive health examinations, which have been routine for decades in the Austrian health care system [9]. Additionally, approximately 43% of subjects aged 65 years and older in the Austrian general population have a consultation with their primary health care provider at least once a month [5] providing a good opportunity to include a geriatric assessment in primary care. Finally, it would be necessary to also implement multiprofessional geriatric teams that would be responsible for geriatric care plans tailored to the individual needs of people under their care, and consequently implement therapeutic and rehabilitative measures such as physical training.

In many countries, as in Austria, the health care system and especially the primary care level are under construction [10]. Strengthening primary care also means integrated care with a continuous and comprehensive care where the patients are the focus and the implementation of standardized processes through interprofessional teams. The reconstruction of primary care with these characteristics gives a good opportunity to also implement the standardized geriatric assessment, individual geriatric care plans, and the implementation of physical training. Only then can a major challenge for health care and the society, that results from the demographic development be tackled and managed.

Conflict of interest T.E. Dorner declares that he has no competing interests.

References

1. Haider S, Grabovac I, Dorner TE. Effects of physical activity interventions in frail and prefrail community-dwelling people on frailty status, muscle strength, physical performance and muscle mass—a narrative review. Wien Klin Wochenschr. 2019; https://doi.org/10.1007/s00508-019-1484-7.
2. Volaklis K, Mamadjanov T, Meisinger C, Linseisen J. Association between muscular strength and depressive symptoms: a narrative review. Wien Klin Wochenschr. 2019; https://doi.org/10.1007/s00508-019-1491-8.
3. Physical Activity Guidelines Advisory Committee. Physical activity guidelines advisory committee scientific report. Washington, DC: U.S. Department of Health and Human Services; 2018.
4. Titze S, Ring-Dimitriou S, Schober PH, et al. Österreichische Empfehlungen für gesundheitswirksame Bewegung. Vienna: Fonds Gesundes Österreich; 2010.
5. Dorner TE, Wilfinger J, Hoffmann K, Lackinger C. Association between physical activity and the utilization of general

practitioners in different age groups. Wien Klin Wochenschr. 2019; https://doi.org/10.1007/s00508-019-1503-8.
6. Haider S, Grabovac I, Dorner TE. Fulfillment of physical activity guidelines in the general population and frailty status in the elderly population: a correlation study of data from 11 European countries. Wien Klin Wochenschr. 2018; https://doi.org/10.1007/s00508-018-1408-y.
7. Crevenna R, Dorner, TE. Association between fulfilling the recommendations for health-enhancing physical activity with (instrumental) activities of daily living in older Austrians. Wien Klin Wochenschr. 2019; https://doi.org/10.1007/s00508-019-1511-8.
8. Bytyci A, Ymerhalili G, Dorner TE, Stein KV, Maxhera O. Piloting an Integrated Care Model using the Geriatric Assessment tool. Wien Klin Wochenschr. 2019; https://doi.org/10.1007/s00508-019-1512-7.
9. Brunner-Ziegler S, Rieder A, Stein KV, Koppensteiner R, Hoffmann K, Dorner TE. Predictors of participation in preventive health examinations in Austria. BMC Public Health. 2013;13:1138.
10. Hofmarcher MM, Mayer S, Peric N, Dorner TE. Primary healthcare centers: a silver bullet? In: Braithwaite J, et al., editor. Healthcare systems. Future predictions for global care. Boca Raton: CRC Press, Taylor & Francis Group; 2018.