

Successful ageing with a focus on fitness and physical activity

Population-based studies of 75-year-olds

Akademisk avhandling
som för avläggande av filosofie doktorsexamen vid Sahlgrenska Akademin vid Göteborgs universitet
kommer att offentligen försvaras i hörsal Ivan Östholm, Medicinargatan 13, Göteborg,
fredagen den 14 februari 2014 kl. 9.00

av

Helena Hörder

Fakultetsopponent:

Professor Taina Rantanen

Department of Health Sciences and Gerontology Research Center, University of Jyväskylä

This thesis is based on the following papers:

- I. Mosallanezhad Z, Hörder H, Salavati M, Nilsson-Wikmar L, Frändin K. Physical activity and physical functioning in Swedish and Iranian 75-year-olds: a comparison. *Arch Gerontol Geriatr.* 2012;55(2):422-30.
- II. Hörder H, Skoog I, Frändin K. Health-related quality of life in relation to walking habits and fitness: a population-based study of 75-year-olds. *Quality of Life Research.* 2013;22(6): 1213-1223.
- III. Hörder H, Frändin K, Larsson M. Self-respect through ability to keep fear of frailty at a distance: successful ageing from the perspective of community-dwelling older people. *Int J Qual Stud Health Well-being* 2013. Mar 18;8:20194.
- IV. Hörder H, Skoog I, Johansson L, Falk H, Frändin K. Birth cohort differences in fitness, physical activity and falls: a population-based study of 75-year-olds examined in 1987 and 2005. Manuscript submitted.



UNIVERSITY OF GOTHENBURG

ABSTRACT

Background: Life expectancy increased dramatically during the 20th century and is still increasing in many parts of the world. In view of population ageing, the health and functioning of older persons and factors that could promote a good life in old age have become of vital importance. The aim of this thesis was to further the knowledge about successful ageing, focusing particularly on fitness and physical activity.

Method: This thesis is part of the repeated cross-sectional and longitudinal Gerontological and Geriatric Population Studies in Gothenburg, initiated in 1971. Samples comprised 75-year-olds born in 1930 and examined in 2005, 75-year-olds born in 1911-12 and examined in 1987, and also 75-year-olds living in Teheran, Iran. Fitness was assessed with standardised tests of gait speed, chair stand, stair climbing, one-leg stance and grip strength. Questions on physical activity and health-related quality of life (HRQL), assessed with Short Form 36 (SF-36), were also included. Further, open interviews were conducted with 22 persons aged 75-90 years regarding their views of successful ageing.

Main findings: Seventy-five-year-olds in Sweden had better physical functioning, both in tests of fitness and in self-reported measures, compared to those in Iran. They also had a higher level of physical activity (about 85 % versus 10 % reported any physical activity). However, no difference was found regarding the proportion of fallers. In both countries, there was a gender gap with men having better physical functioning and reporting more physical activity, compared to women.

In Sweden, about 60 % of 75-year-olds attained recommended levels of walking (≥ 150 min/week). Regular walking was positively related to HRQL, and fitness was identified as a partial mediator in this relation, mainly among women.

Seventy-five-year-olds examined in 2005 had better fitness and a higher level of physical activity compared to 75-year-olds examined in 1987, but this positive trend was not observed in women with a low level of education.

Further, when persons aged above 75 years were asked about their views of successful ageing, an overarching theme was formulated as “self-respect through ability to keep fear of frailty at a distance”.

Conclusion: This thesis suggests that the level of fitness and the frequency of physical activities are higher among 75-year-olds in Sweden examined in 2005 compared to those examined in 1987 and compared to those living in Iran. Although older persons seem to have improved their physical functioning, worries about future frailty may threaten the possibility for successful ageing.

Keywords: Age well, quality of life, healthy ageing, older persons, cross-national, walking, exercise, qualitative research, content analysis, secular trends

ISBN: 978-91-628-8823-7