

Neighborhood environment and chronic pain among older adults

Swedish Annual Level of Living Survey

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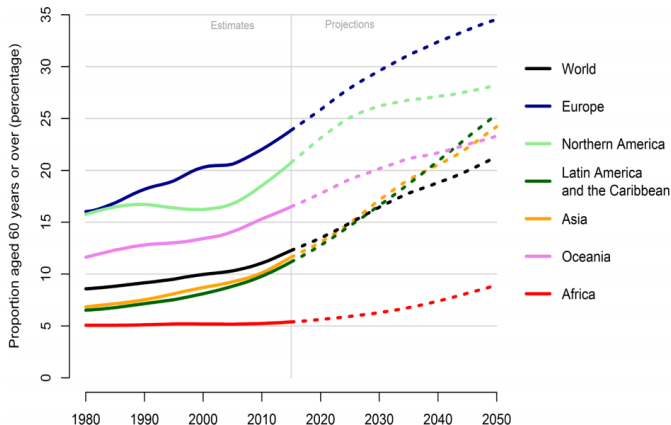
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Introduction

- World population is ageing (UN, 2017) [1].

Percentage of population aged 60 years or over by region, from 1980 to 2050



Data source: United Nations (2017). World Population Prospects: the 2017 Revision.

Introduction - Older adults

- Longer life = more opportunities [2]
 - ▶ Seek further careers, educations as individuals.
 - ▶ Valuable contributions to society.
- but it depends on.... health.

Introduction - Older adults

- Life expectancy = healthy life expectancy (disability free).



Data source : National Institute of Health and Nutrition . Health Japan 21 (the second term) Analysis and Assessment Project

Introduction - Older adults

- End of healthy life = Lost functional ability and become care-dependent.
- Determinants of care dependent = physical disorders, especially from fall.
- Pain, is one of the biggest factor for falls, and even mental health.

Number of subjects ≥ 60

Baseline 2016, n=2724

Number of subjects ≥ 60
without missing data for
relevant variables

Baseline 2016, n=2526

Introduction - Pain

- Fact of pain.
 - ▶ Pain is a determinant factor for physical function decline.
 - ▶ Associated healthcare cost with pain.
 - ▶ Current issues with pain, mainly treatment.

Introduction - Pain and neighborhood

- Neighborhood environment
 - ▶ Some individual risk factors have been found for pain, i.e. SES.
 - ▶

Objectives

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- To investigate whether neighborhood deprivation is associated with chronic pain among older adults.

Hypothesis

- Older adults living in deprived areas would have higher risk of having/developing chronic pains.

Implication

- The findings lead to further investigations for what modifiable factors lie in neighborhood deprivation and pain.



Methods - Data source

Data source

- Swedish Annual Level of Living Survey
 - ▶ The Swedish Living Condition Surveys (ULF/SILC).
 - ▶ Started since 1975 .
 - ▶ Changed from face-face to phone interviews in 2008 .

Study subjects

- Those who participated in ULF in 2008 - 2013 (3 time points).
- Those who participated in ULF in 2014 - 2018 (3 time points).

Methods - Variables

Outcome

- Pain, Severe pain.
 - ▶ **2008-2013** Do you suffer from pain? Are the ailments are severe or minor? 1. Back/hips/sciatica, 2. Shoulders/neck, 3. Hands/elbows/legs/knees.
 - ▶ **2014-2018** Do you suffer from pain? Would you say the ailments are severe or minor? 1. Back/hips, 2. Shoulders/neck, 3. Arms/hands/legs/feet.
- Disease of the musculoskeletal system and connective tissue
 - ▶ Based on ICD9. From 2012, based on ICD10.
 - ▶ Ex. Rheumatoid arthritis, osteoarthritis, soft tissue, rheumatism, periostitis.
- Disabilities
 - ▶ Reduced mobility, motor disability.

Methods - Variables

Type	Name	Description
Outcome	Serious/Severe pain	Do you suffer from pain? Would you say the ailments are severe or minor? (2014 2018) Are the ailments are severe or minor? (2008 2013).
Primary exposure	Neighborhood deprivation index	Linked with the measures by SAMS.
Covariates	Basic characteristics	Age, gender, immigration status.
	Socio-economic status	Education, occupation, marital status, income.
	Physical activity	Frequencies of leisure time activities, i.e. walking, outdoor sports.
	Mental conditions	Problems of anxiety, worry, fear.
	Social relations	Living alone, social contact, time, have friends.



References



United Nations et al. *World Population Ageing, 2017 Highlights*. OCLC: 1082362390. 2017. ISBN: 978-92-1-151551-0.



Alberto Raggi et al. “Determinants of Mobility in Populations of Older Adults: Results from a Cross-Sectional Study in Finland, Poland and Spain”. In: *Maturitas* 115 (2018), pp. 84–91. DOI: 10.1016/j.maturitas.2018.06.018.