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GERONTOLOGY RESEARCH CENTER AND DEPARTMENT OF HEALTH SCIENCES

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Are psychosocial symptoms and self-rated health early and shared risk factors for physical disability and cognitive decline in old age?

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BACKGROUND AND AIMS

Dementia and cognitive disorders, as well and decline in physical functioning, are major public health concerns and their impact is increasing in aging population. The aim of this study is to investigate whether similar early signs leading to cognitive decline also precede physical decline and disability in old age. Traditionally these research areas have been distinct.

This multidisciplinary study focuses on self-rated health, depression, stress and psychosocial symptoms in mid life as predictors of physical and cognitive decline, dementia and Alzheimer's disease in old age. In addition to studying each predictor variable separately, the goal is also to investigate different combinations of psychosomatic symptoms and negative reactions to work as predictors of health decline. That approach will show which combinations of these symptoms have the most detrimental effect on health outcomes in old age.

SPECIFIC RESEARCH QUESTIONS

. Are stress symptoms in midlife associated with cognitive decline or physical disability in old age?

. Are negative motivational reactions to work in midlife associated with adverse health outcomes in old age?

. Does poor self-rated health or fitness earlier in life predict physical disability or dementia in old age?

. Are stressful life events accelerating the process of cognitive decline?

SUBJECTS

Two existing datasets from Gerontology Research Centre, University of Jyväskylä, Finland and from Aging Research Centre, Karolinska Institutet, Sweden, will be used for conducting the study. Also additional data from the University from Eastern Finland, school of pharmacy, will be used in conducting the research. The datasets, which consist of follow-ups up to 34 years are unique and few world-wide.

1. **The follow-up study on Finnish municipality workers (FLAME)** (Collaboration between University of Jyväskylä and Finnish Institute of Occupational Health) N=6257

1. **Cardiovascular Risk Factors, Aging and Dementia (CAIDE) study** (Collaboration between the Aging Research Centre, Karolinska Institutet, Stockholm Sweden, Department of Neurology, University of Eastern Finland, Kuopio and National Institute for Health and Welfare (THL), Helsinki) N=2000

METHODS

Data include information about work, work ability, health, medical history, somatic and psychosocial symptoms, work strain, stress, lifestyle and leisure-time activities in midlife and information about cognitive and physical functioning in old age.The statistical methods appropriate to analyze prospective cohort studies will be used to analyze the data. Mortality as a competing factor will be taken into account.

RESULTS AND REPORTING

The post-doc research will consist of original articles, which will be published in international peer-reviewed scientific journals. Additionally, the results will be presented in national and international conferences during 2011-2014.

IMPACT OF THE STUDY

. This study will increase the knowledge of risk factors for cognitive dysfunction and physical disability in old age.
. Combining thus far separate research areas (work, lifestyle and psychosomatic and depressive symptoms in mid-life with aging and cognitive and physical decline), will produce new expertise in a field of life course influences on wellbeing in old age.
. In terms of scientific relevance, the project will provide new results and insights to the understanding of the process of aging and development of cognitive disorders.
. In terms of research infrastructure, the project will strengthen the competence in aging research through collaborative work.

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