

# Subjective cognitive decline in memory clinic patients – characteristics and clinical relevance

Akademisk avhandling

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av Marie Eckerström

Fakultetsopponent:  
Professor Elisabet Londos  
Lunds universitet

Avhandlingen baseras på följande delarbeten

I. Eckerström M, Skoogh J, Rolstad S, Göthlin M, Steineck G, Johansson B, Wallin A. *Sahlgrenska Academy Self-reported Cognitive Impairment Questionnaire (SASCI-Q) – a research tool discriminating between subjectively cognitively impaired patients and healthy controls*. *International Psychogeriatrics*, 2013, 25 (3): 420-30.

II. Eckerström M, Berg A I, Nordlund, A, Rolstad S, Sacuiu S, Wallin A. *High Prevalence of Stress and Low Prevalence of Alzheimer Disease CSF Biomarkers in a Clinical Sample with Subjective Cognitive Impairment*. *Dementia and Geriatric Cognitive Disorders*, 2016, 42: 93–105.

III. Eckerström M, Göthlin M, Rolstad S, Hessen E, Eckerström C, Nordlund A, Johansson B, Svensson J, Jonsson M, Sacuiu S, Wallin A. *Longitudinal evaluation of criteria for subjective cognitive decline and preclinical AD in a memory clinic sample*. Manuscript accepted for publication in *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, April 2017.

IV. Eckerström M, Eckerström C, Göthlin M, Rolstad S, Wallin A. *Subjective cognitive symptoms in progressing vs. non-progressing memory clinic patients – a five year follow-up*. Manuscript.

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# Subjective cognitive decline in memory clinic patients – characteristics and clinical relevance

Marie Eckerström

Avdelningen för psykiatri och neurokemi, Institutionen för neurovetenskap & fysiologi, Sahlgrenska akademien, Göteborgs universitet, Sverige.

## Abstract

Subjective cognitive decline (SCD) refers to concerns – symptoms - regarding one's cognitive functioning, in the absence of objective evidence of impairment. SCD has been described as a possible stage preceding mild cognitive impairment (MCI) and dementia. The characteristics and clinical relevance in relation to subsequent objective cognitive decline is however still unclear.

We developed a patient-based comprehensive questionnaire on everyday cognitive difficulties. Patients with SCD were followed over time, to analyze the associations between SCD and cognitive outcome. Furthermore, we investigated the associations between SCD and stress, depressive symptoms and CSF AD profiles, and evaluated newly published international criteria for SCD, 'preclinical AD' and subcategories, involving both clinical features and neurochemical biomarkers. All participants in the current thesis were patients or healthy volunteers at the Sahlgrenska memory clinic in Mölndal.

We identified specific SCD symptoms that were more frequently reported by subjectively impaired patients seeking help for cognitive problems, compared to healthy elderly. The self-report instrument SASCI-Q is a useful research tool to investigate cognitive symptoms further. SCD patients were characterized by relatively young age, high educational attainment, high prevalence of stress conditions and depressive symptoms, and a family history of dementia. About 40 % of patients with SCD declined cognitively over  $4\pm 2.9$  years – one fourth of them converted to dementia. When CSF biomarkers were added, the ability to predict MCI, dementia and AD dementia clearly increased. A specific profile of subjective cognitive symptoms could not be associated with cognitive decline in a mixed SCD+MCI patient sample. However, when groups were analysed separately, reporting more symptoms was associated with subsequent decline in the SCD group whilst reporting less symptoms was associated with subsequent decline in the MCI group.

Cognitive symptoms reported by the patient may signify many different conditions, and their associations with subsequent dementia should not be overstated when there are no objective signs present.

**Keywords:** cognition; self-assessment; memory: mild cognitive impairment; subjective cognitive decline: dementia: Alzheimer's disease; preclinical AD; stress; depressive symptoms; memory clinic.