

# Cognitive problems common among non-demented elderly

February 6 2012

---

Both subjective and objective cognitive impairment are highly common among non-demented elderly Swedes, with an overall prevalence of 39 percent and 25 percent respectively, according to a nationwide twin study by researchers at the Aging Research Center of Karolinska Institutet, Sweden. The study confirms higher education as a major protective factor and stresses the importance of environmental aspects over genes in mild cognitive disorders in old age.

In the current study, which is published in the *Journal of Alzheimer's Disease*, the researchers investigated the distribution and [heritability](#) of subjective and objective cognitive impairment in the population by using data from 11,926 twins aged 65 and above in the Swedish Twin Registry. Objective cognitive impairment involves a reduced performance on tests measuring different [cognitive abilities](#), such as memory and attention, while subjective cognitive impairment involves the same type of problems but experienced only at the subjective level. The researchers then found, that together subjective and objective cognitive impairment affect the majority of non-demented Swedish elderly (joint prevalence 64 percent), suggesting that mild cognitive disorders may represent a major public health concern even in the absence of [dementia](#).

The study also highlights that subjective and objective cognitive impairment has distinct socio-demographic profiles. Specifically, when compared with people with objective cognitive impairment, elderly with subjective complaints only were more educated, more likely to be married, and to have higher socio-economic status – pointing to a

possible protective effect of this favorable life conditions. Co-twin control analysis showed that the detrimental effect of lower educational level on cognitive functioning is largely independent by genetic background and early life environment.

"This underlies the relevance of adult life educational achievements for preserved cognitive functioning in older life", says Dr Barbara Caracciolo, who led the study at the Aging Research Center in Stockholm.

Regarding the heritability of subjective and objective [cognitive impairment](#), the researchers observed concordance rates of 63 percent and 52 percent in monozygotic twins, 63 percent and 50 percent in dizygotic same-sex twins, and 42 percent and 29 percent in dizygotic unlike-sex twins. The lack of substantial differences in concordance rates between genetically identical (monozygotic) and or non-identical (dizygotic) twins suggests that environmental influences rather than genetic background play the major role in the occurrence of mild cognitive disorders in non-demented elderly.

**More information:** 'Differential Distribution of Subjective and Objective Cognitive Impairment in the Population: A Nation-Wide Twin-Study', Caracciolo B, Gatz M, Xu W, Pedersen NL, Fratiglioni L., *Journal of Alzheimer's Disease*, epub ahead of print 10 January 2012, [doi:10.3233/JAD-2011-111904](https://doi.org/10.3233/JAD-2011-111904)

Provided by Karolinska Institutet

Citation: Cognitive problems common among non-demented elderly (2012, February 6) retrieved 27 April 2024 from <https://medicalxpress.com/news/2012-02-cognitive-problems-common-non-demented->

[elderly.html](#)

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.