

Dementia and other mental disorders among 95-year olds

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Avhandlingen baseras på följande delarbeten:

- I The prevalence of dementia in 95 year olds
Anne Börjesson-Hanson, Eva Edin, Thorsteinn Gislason, Ingmar Skoog
Neurology 2004;63:2436-2438
- II Five-year mortality in relation to dementia and cognitive function in 95-year olds
Anne Börjesson-Hanson, Deborah Gustafson, Ingmar Skoog
Neurology 2007;69:2069-2075
- III Prevalence of mental disorders in a population sample of 95-year-olds compared with 75- and 85-year-olds from the same birth cohort
Anne Börjesson-Hanson, Svante Östling, Deborah Gustafson, Margda Waern, Ingmar Skoog. *Submitted*
- IV Psychotic symptoms and paranoid ideation in a population-based sample of 95-year olds. Svante Östling, Anne Börjesson-Hanson, Ingmar Skoog.
American Journal of Geriatric Psychiatry 2007;15:999-1004



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Findings from the Gothenburg 95+ Study.

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The aims of this study were to estimate the prevalence of mental disorders and age related differences in the very elderly. In addition, five-year mortality after age 95 in relation to dementia and cognitive function in non-demented, was examined.

A population sample of 338 95-year-olds (response rate 65%) living in Gothenburg, Sweden, was compared with 85- (N=494) and 75-year-olds (N=303) from the same birth cohort. All participants were examined by psychiatrists. The assessments included the Comprehensive Psychopathological Rating Scale, cognitive tests, the Mini Mental State Examination (MMSE), medical history, physical examination and a telephone interview with a key informant. Dementia, depression, anxiety and psychosis were classified according to DSM-III-R criteria, Alzheimer's disease according to NINCDS-ADRDA criteria and vascular dementia (VaD) according to NINDS-AIREN criteria.

Two-thirds (66%) of the 95-year-olds fulfilled criteria for a mental disorder. Dementia was more common (52% vs. 30%; $p < 0.001$) and more severe in 95-year-olds than in 85-year-olds. Among 95-year-olds, dementia was more common in women than in men (56% vs. 37%; $p = 0.006$). The proportion of VaD was lower among 95-year-olds than among 85-year-olds (30% vs. 40%; $p < 0.001$).

Almost one-third (29%) of the non-demented 95-year-olds had a psychiatric disorder (depression 17%, anxiety disorders 9%, psychotic disorder 7%). Psychotic symptoms among non-demented 95-year-olds were not associated with other psychiatric symptoms, sensory impairments or cognitive function. The prevalence of psychiatric disorders among non-demented was higher for 85- and 95-year-olds than for 75-year-olds.

Five-year survival after age 95 was similar in men and women, but when controlling for dementia, male sex predicted mortality. Dementia was the leading predictor for death after age 95 and attributed to 40% of deaths. For each point increase in the MMSE score among the non-demented 95-year-olds, mortality decreased by 13% (RR 0.87; $p < 0.0002$).

The high prevalence of psychiatric disorders emphasizes the importance of detecting and treating psychiatric problems among the oldest old, and also the need for further research on mental health in this age group. There is a concern that psychiatric symptoms among the very old are considered "normal for age" and therefore neglected by the patients themselves, their relatives and health care professionals.

Key words: nonagenarians, 95-year-olds, dementia, Alzheimer's disease, vascular dementia, depression, anxiety, psychotic, paranoid ideation, cognitive function, mortality, population attributable risk, population study, prevalence, epidemiology, oldest old, very elderly

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