

Sex, gender, and the decline of dementia

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Objective: To discuss the effects of sex and gender on time trends in the incidence of dementia.

Methods: It may be useful to consider the time trends for two groups of neurological diseases: 1) diseases that involve neurovascular mechanisms such as stroke, vascular, or mixed dementia, and 2) diseases that involve neurodegenerative mechanisms such as Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis. In addition, it is useful to consider trends in men and women separately.

Results: My interpretation of the epidemiologic evidence is that the incidence of neurovascular diseases has declined, whereas the incidence of neurodegenerative diseases has increased in recent decades. These trends vary by sex and across countries.

The incidence of stroke has declined in United States and Canada studies; the incidence of parkinsonism has increased in United States and Finland studies; and the incidence of amyotrophic lateral sclerosis has increased in Denmark and Italy studies.

Declining time trends for the incidence of overall dementia have been reported from studies in the United States, the United Kingdom, and Canada. A recent study in Canada showed a significant decline in the incidence of dementia at older ages (80+ years; with a major neurovascular component), but a significant increase in incidence at younger ages (20-49 and 50-64 years; with a major neurodegenerative component). Therefore, the overall declining trend for dementia may conceal trends in opposite directions for the two major subtypes of dementia, the neurovascular and the neurodegenerative type. The trends are more pronounced in women in the North America studies and in men in some European studies.

Conclusions: The future of dementia remains somewhat unclear; however, we can be cautiously optimistic. Attention to sex and gender factors may help in preventing dementia.

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