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Letter to the Editor

Gender differences in the perception of cognitive decline

Female sex is recognized as a major risk factor for developing dementia, specifically sporadic Alzheimer's disease. Postmenopausal endocrine changes associated with brain glucose hypometabolism, β-amyloid deposition and mitochondrial dysfunction may contribute to this effect, as well as age-dependent interactions between sex and the apolipoptotein Eε4 allele (Mosconi et al., 2017; Neu et al., 2017; Vina and Lloret, 2010). However, in contrast to dementia risk elevation due to advanced age, worldwide data do not show robust sex-specific incidence rates for developing dementia when considering sex differences in longevity and the heterogeneous etiology of cognitive decline (Rocca et al., 2014). Beyond any possible dementia risk associated with biological sex, we wanted to examine whether there are gender effects on the perception of cognitive decline and subsequent health care utilization.

We investigated 273 people (female/male; 149/124) presenting to our university's memory clinic for the first time between 2016 and 2018. Severely demented individuals without the cognitive capacity to consent were not invited to participate. After complete description of the study to the subjects, written informed consent was obtained; the university's ethics committee approved the study. Among the 186 non-demented people (female/male; 103/83; Mini-Mental State Examination: women 28.1 ± 2.0 points; men 28.2 ± 1.7 points; $t = 0.34$, $p = 0.73$) of our subject sample, women compared with men were approximately 3 years younger (women: 66.5 ± 10.6 years; men: 69.6 ± 9.8 years, $t = 2.06$, $p = 0.041$), reported greater concern associated with subjective cognitive deterioration (concern yes/no: women 84.8%/15.2%; men 69.5%/30.5%; $\chi^2 = 6.13$, $p = 0.013$) and more fear of developing dementia (fear yes/no: women 64.7%/35.3%; men 47.0%/53.0%; $\chi^2 = 5.85$, $p = 0.016$). They also showed greater intrinsic motivation to undergo diagnostic assessments (motivation intrinsic/extrinsic: women 81.0%/19.0%; men 64.6%/35.4%; $\chi^2 = 6.22$, $p = 0.013$). Demented women and men (female/male; 46/41; Mini-Mental State Examination: women 21.6 ± 5.8 points; men 21.6 ± 6.5 points; $t = -0.31$, $p = 0.98$) did not show differences in these measures.

Access to health care services as well as education about- and perception of illness substantially vary between and within societies. Contributing to such variations, gender differences in health care utilization are likely mediated by a broad range of biological and cultural factors (Bertakis et al., 2000). In line with this framework our data suggest that gender differences in the personal appreciation of early cognitive decline may contribute to the heterogeneity in sex-associated dementia risk estimates.

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Declaration of Competing Interest

The authors report no conflicts of interest.

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