

# The interplay of life satisfaction and cognitive reserve: implications for cognitive change in old age. A population-based study

Friday, September 12, 2025 6:00 PM (10 minutes)

Scientific evidence suggest that higher levels of well-being are associated with slower cognitive decline during aging. We aimed to investigate the relationship between the Life Satisfaction Index (LSI) - one of the most frequently used measures of well-being - and cognitive decline, considering the role of cognitive reserve (CR) and sex differences. Longitudinal data from the Swedish National Study on Aging and Care in Kungsholmen (SNAC-K) were used. The population included 2618 cognitively healthy elderly participants older than 60, followed for up to 15 years. Trajectory of global cognitive decline was captured by changes in the Mini-Mental State Examination (MMSE). The relationship between LSI at baseline and MMSE change was assessed using linear mixed models, adjusted for, among others, personality, chronic disease burden, and depressive symptoms (all at baseline). Interplay of LSI with CR and sex was assessed in stratified analyses. Higher levels of LSI were associated with slower cognitive decline ( $\beta_{time} = .33$ ;  $p < 0.001$ ). *This association was independent of CR, being observed in participants with both low and high CR. In particular, LSI was associated with cognitive preservation only in women ( $\beta_{time} = .30$ ;  $p < 0.001$ ), and not in men ( $\beta_{time} = .10$ ;  $p = 0.17$ ).* Our study highlights the importance of psychological well-being in cognitive aging. Notably, because LSI contributes unique variance to cognition that is independent of cognitive reserve—a well-established correlate of cognitive phenotypes during aging—LSI could be considered a target for interventions to prevent cognitive decline, particularly among women.

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