

Study finds no link between cognitive decline, socioeconomic status in elderly

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(PhysOrg.com) -- New UCLA research suggests that for seniors age 70 and older, socioeconomic status does not play a major role in the brain's continued ability to function. However, seniors who have never been married and widowers seem to perform more poorly as they age.

Previous studies on age-related [cognitive decline](#) have not adequately clarified the role demographics and socioeconomic status might play in the rate of decline. Some small and short-term studies have found small socioeconomic differences in decline rates, while others have shown none at all, leaving the issue murky at best.

In a new national study of older Americans 70-plus years of age (mean age 75) published in the Aug. 1 issue of the *American Journal of Epidemiology*, researchers from the David Geffen School of Medicine at UCLA and the UCLA School of Public Health found that rates of [cognitive](#) decline over a nine-year period were similar across socioeconomic and racial and ethnic groups. The findings indicate that disparities in [cognitive functioning](#) among older Americans of different groups are almost entirely due to differences in the cognitive peaks they reached earlier in life, not to differences in rates of decline.

"It has been known that cognitive performance at any given age appears to depend on demographic characteristics; the more educated, for instance, perform better," said lead investigator Dr. Arun Karlamangla, associate professor of medicine in the division of geriatrics at the Geffen School of Medicine. "But though there are differences in the level of

performance you start with in your late 60s, this study's surprise is that the rate of decline in your 70s is the same for every group."

The study was based on data from 6,476 adults born prior to 1924 culled from the Study of Assets and Health Dynamics Among the Oldest Old (AHEAD). Participants were tested five times between 1993 and 2002 on various [memory](#) and cognition items, including word recall, the "serial sevens" subtraction test, orientation to time, attention, language and knowledge of current affairs.

The study found evidence of a link between socioeconomic status (SES) and cognition, but only at baseline — that is, the first test. Those with high SES performed better on the first assessment than those with middle SES, who in turn performed better than individuals with low SES. These differences, researchers said, could be linked to the effects of education, such as learned test-taking strategies and the possible direct effects of education on brain structure.

Researchers did find some demographic variation in rates of cognitive decline, with older participants declining faster than younger ones, and widows and widowers and those who never married declining faster than married individuals.

"The most consistent predictors of faster declines in cognitive functioning were being old and being single," the researchers wrote.

There are some potential limitations to the study, the researchers noted. Though few associations between socioeconomic status and the rate of cognitive decline were found in the AHEAD total cognition score, an association might emerge in other cognition domains not examined in the study. There was a greater drop-off during the follow-up period among participants with low [socioeconomic status](#) and among low-functioning individuals, possibly skewing results. Additionally, the

researchers did not control for differences between groups in physical health.

In addition to Karlamangla, study authors included Dana Miller-Martinez, Carol S. Aneshensel, Teresa E. Seeman, Richard G. Wight and Joshua Chodosh, all of UCLA. Chodosh is also affiliated with the Veterans Affairs Greater Los Angeles Healthcare System.

The study is available online at aje.oxfordjournals.org/cgi/reprint/170/3/331.

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