For women, cognitive decline starts in middle age

FEB 17, 2017

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While cognitive declines are common in older ages, research on drops in cognitive ability midlife has been inconclusive. A new longitudinal study of women controlled for factors that previously had been shown to skew test results of processing speed and memory. It shows evidence that females experience cognitive aging as early as midlife.

The study, published in *PLOS One*, looked at more than 2,000 women with a median age of 54 at the study’s baseline. Researchers examined scores on annual tests of processing speed, immediate and delayed verbal episodic memory, and working memory.

Unlike previous studies, it controlled for “practice effects”—or learning from repeat testing—as well as menopause transition, both of which can mask declines in younger cohorts. Earlier research had shown that practice effects are largest at the first re-testing and diminish significantly thereafter, so the study’s authors excluded data from the first two cognition testing visits. In addition, the majority of the cohort was postmenopausal at the third visit.

The results showed a mean decline in cognitive speed of 4.9 percent and an average drop in verbal episodic memory of 2 percent in 10 years. They did not show declines in immediate recall or working memory.

“Our results provide strong, longitudinal evidence of cognitive aging in midlife women, with substantial within-woman declines in processing speed and memory,” wrote the authors, led by Arun S. Karlamangla, MD, professor of medicine in the Division of Geriatrics at the University of California, Los Angeles David Geffen School of Medicine. “Further research is needed to identify factors that influence decline rates and to develop interventions that slow cognitive aging.”

Limitations of the study include the inability to detect initiation or acceleration of cognitive decline at the time that estrogen starts declining, the absence of men from the study and limited generalizability to women not represented in the study.
The authors were careful to note that “[a] decline in processing speed in midlife is not a harbinger of declines in other domains of functioning.”

Still, research has shown that two-thirds of the 5 million Americans 65 and over with Alzheimer’s are women. In addition, at 65, women without Alzheimer’s have more than a one-in-six chance of developing the disease, compared with a one-in-11 chance for men of the same age.

The AMA recently adopted policy supporting increased awareness of the sex and gender differences in incidence and etiology of Alzheimer’s disease and related dementias. The AMA also encourages increased enrollment in clinical trials of appropriate patients with Alzheimer's disease and related dementias, and their families. The goal is to better identify sex differences in incidence and progression, and to advance a treatment and cure of Alzheimer's disease and related dementias.

Advancing women’s health

This policy was updated to include considerations for women based on a resolution introduced by the AMA Women Physicians Section (AMA-WPS), created in 2013 by the AMA House of Delegates, the Association’s democratic policymaking body.

The history of AMA-WPS can be traced to the Ad Hoc Committee on Women Physicians in Organized Medicine, initiated in 1979 by mandate of the Board of Trustees. The initial goals of the Ad Hoc Committee and its later incarnation, the Advisory Panel, were to identify and address issues important to women physicians, in addition to increasing the AMA membership and the participation of women physicians and medical students at all levels of the Association.

The AMA-WPS carries on the initial mission of its predecessor groups through more than 74,000 members striving to increase representation of women physicians in leadership positions throughout organized medicine. In addition, the section strives to enhance AMA advocacy on women physician policy issues, provide leadership development and educational opportunities, and monitor trends and issues that affect women in the medical profession.

Its work has also led to policy supporting prevention of, comprehensive care for and research into heart disease in women and better understanding of the role of demographic, socioeconomic, and psychological factors in the onset of heart disease in women, as well as an expanded definition of women's health.
The AMA-WPS is soliciting resolutions for the 2017 AMA Annual Meeting, June 10 – 14 in Chicago. The deadline to submit resolutions to the section is March 30; resolutions will be reviewed during the AMA-WPS online forum, April 5 – 13.

In addition, the section has several leadership opportunities available in 2017, including three positions on its governing council. The deadline for nominations is March 15. Another opportunity to get involved is the AMA-WPS Associates, to which medical societies are encouraged to appoint their members as representatives.

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