ALZHEIMER’S UPDATE

BRAIN HEALTH’S TRIPLE AIM

By Krystal L. Culler, MA, and Jessica M. Williams, BS

The Institute for Healthcare Improvement strives to achieve the “Triple Aim,” which concurrently addresses care, health, and cost. The Triple Aim is used as a care guideline to address comprehensive concerns for high-risk, complex, and costly patients to result in improved patient care experiences, better health outcomes, and lower overall health care expenditures. Advances in medical technology and health care have contributed to people living longer, healthier lives.

With the increase in lifespan, there is a dramatic upsurge in the incidence of cognitive decline and dementia. Recent research emphasizes that a public health approach to dementia could prevent up to 30% of worldwide dementia cases over the next 20 years. Although normal cognitive changes occur in the brain due to aging, it is important to understand cognitive aging and brain health from a life course perspective. Brain health and cognitive aging are lifelong processes and can have both positive and negative effects on health. Brain health-related problems impact more than 200 million Americans at some point in the lifetime, including depression, anxiety, insomnia, brain fog, memory problems, or being overweight.

The incidence of dementia may be improved through population health efforts that target education and other lifestyle factors that can improve brain health and, in turn, decrease health care costs. The recent $4.1 million government-funded Brain Health Awareness campaign coupled with the creation of the Global Brain Health Institute and the Global Council on Brain Health highlights brain health as a global and national health care concern. In sum, the ultimate goal of these initiatives is to streamline recent brain health information to enable professionals to make evidence-based brain health recommendations for their patients.

What Is Brain Health?

Brain health, at the forefront of hot topics across a variety of industries, has received recent attention nationally and internationally from health care providers, practitioners, researchers, and scientists. According to the Administration on Community Living, brain health refers to individuals’ ability to remember, learn, plan, problem solve, concentrate, and maintain a clear and active mind. Brain health is conceptualized in terms of cognitive aging, including attention, memory, decision-making, and language perception and comprehension. Furthermore, brain health encompasses a variety of lifestyle factors that have the potential to decrease risk factors for late-life cognitive decline and dementia.

Various health care systems, national organizations, and brain health experts address a number of pillars of brain health. Similarities among the different pillars of brain health address the following areas: exercise (physical and mental), diet (medications and supplements), stress management (meditation, sleep), socialization, and the management of other personal medical health concerns (disease management, smoking, head injury, and access to health care). Brain health is complex and involves biological, psychological, and social determinants of health. The maintenance of each pillar of brain health essentially contributes to the overall goal of maintaining a brain-healthy lifestyle.

Why Does Brain Health Matter?

Several studies have reported decreasing prevalence rates for dementia and highlight lifestyle factors that can positively impact brain health, such as cardiovascular health, lifelong learning, and physical exercise. Furthermore, nationwide surveys completed by leading health care organizations designed to investigate attitudes and awareness of brain health may offer valuable insights to health care providers regarding what patients might do to support their brain health along with activities designed to care for cognitive health.

Once they are informed that specific activities can enhance brain health, a majority of adults would be
encouraged to engage in those activities, such as obtaining adequate sleep, eating a healthful diet, managing stress, engaging in physical activity, socializing with friends, challenging the mind, taking vitamins or supplements, watching educational programs, volunteering, engaging in mindful activities, watching the news, or taking an educational class. Overall, motivators that can evoke behavior change to support brain health and wellness have been identified. These motivators can be leveraged to empower patients with brain health and wellness education, making them more informed consumers and decreasing health care costs over time as a result of adopting healthful lifestyle behaviors earlier in life.

**Neuroscience’s Contributions to Brain Health**

The rapidly evolving field of neuroscience offers insight into understanding the brain-related mechanisms supported by a brain-healthy lifestyle. Brain adaptability is a lifelong process that can be enhanced by brain exercises, nonpharmacological interventions, and supplements or medications. Brain health is multifaceted and has numerous implications for the daily lives of older adults.

Life experiences, career, and innate intelligence contribute to how brains function later in life, known as cognitive reserve. A higher cognitive reserve offers the ability to combat brain-related disease and cognitive decline, while a lower cognitive reserve increases individuals’ susceptibility to cognitive decline. The culmination of all experiences throughout the lifespan plays a contributing role in the cognitive reserve. Despite age, the brain has the ability to generate new neurons and new connections across brain regions, thus increasing the functionality of the brain. Fundamentally, actions done today matter tomorrow and it is never too late to start a new brain-healthy habit.

Epidemiological evidence supports the understanding that a lifestyle rich in leisure activities of social or intellectual standing can promote a slower cognitive decline in healthy aging adults, reducing the risk of dementia or related disease. New learning experiences strengthen the brain’s ability to alter the function, structure, and organization of neurons, which is critical to the development of memory. As a result, by engaging in a brain-healthy lifestyle, individuals are able to prolong healthy cognition and combat cognitive decline.

**How Can Health Care Providers Support Brain Health?**

Health care providers’ ability to translate current brain health research into real-world implications for adults is crucial. For example, if patients ask health care providers for examples of exercises they can use to work out their brains, providers should aim to feel comfortable offering practical recommendations. Even though advances in current research do not rank exercises with the potential to most improve individuals’ brains, various brain exercises and physical exercise have documented benefits for brain health. Nonetheless, the benefits are limited to gains in particular cognitive domains such as attention or memory. Brain health recommendations should be individualized for patients’ goals and cognitive abilities. The purpose is to encourage patients to lead a brain-healthy lifestyle within their remaining strengths and abilities.

From a research standpoint, health care providers are unable to report that doing crossword puzzles for two hours per day is better than playing an online brain game or solitary. However, health care providers can recommend that patients aim to learn or try something new that is meaningful to them to support their brain health, such as watching an educational show on television, trying a new type of puzzle, or becoming involved with a new class. Brain exercises should ideally be new, novel, and provide an appropriate level of challenge for patients.

**Brain Health Recommendations for Patients**

It may take decades for evidence-based practices promoting brain health to be developed and researched, but the literature supports many brain health lifestyle considerations that can be shared with patients including exercise (both physical and mental), proper diet, sleep, chronic disease management, education, meditation, and socialization. Various national institutions and organizations offer no-cost brain health-related materials that health care providers and organizations can order to distribute to patients. The National Institute on Aging (NIA) offers a brain health educational toolkit that provides an educators’ guide, a PowerPoint presentation, participant handouts, and a supplementary resource list. Recently the NIA released a second toolkit designed to educate consumers about age, medicine, and the brain. These resources may be valuable to health care providers serving aging populations, as well as providers with interest in brain health.
ALZHEIMER’S UPDATE

Health care providers can refer patients to a variety of online brain health assessments (See Table 1), some of which are available at no cost. Many of the online assessments offer individualized brain health reports or dashboards for patients to track their progress as they work toward particular brain health goals. The online assessments are interactive and offer patients practical brain health goals based on their personal needs.

The government’s Healthy Brain Initiative provides a population health approach to the integration of cognitive functioning in public health efforts. Because the brain health field is emerging as an important area of health, providers have a unique opportunity to offer patients of all ages practical health tips and tricks to support their brain health and wellness across the lifespan. Likewise, health care providers can seek out a variety of brain health and cognitive rehabilitation continuing education classes to further their knowledge in this area. Health care professionals, organizations, and community partnerships can support brain health needs of identified at-risk patients within communities. The discovery of the benefits of promoting brain health continues, yet offers promising results for individuals to directly impact their brain health through their normal daily routines.

A Community Approach to Brain Health

The Center 4 Brain Health at Menorah Park is the first nonpharmacological nonhospital-based brain health center in the Cleveland area for people living in the community who are concerned about their memory and thinking skills. The center was created to fill the local community’s needs for and interests in brain health programs. The center offers a variety of programs including experiential, evidence-based cognitive fitness classes designed to address a variety of brain health topics such as wellness, relaxation, sleep, nutrition, and creativity. The center also provides services such as free memory screenings, care partner support groups, a volunteer program for individuals with memory loss, and a brain health information resource center.

Through health education and a brain-healthy lifestyle, individuals can be empowered to positively change the way the brain ages. To support adults aging in the community, the center works collaboratively with local hospital systems and organizations. The center is an example of a local initiative intended to promote and support brain health through community collaborations and services designed to serve residents in the area. The development of the center emphasizes an unconventional approach to supporting brain health and wellness, encouraging individuals of all ages to make the most of their brains as they age.

Additional information about the center’s programs and services can be found at www.center4brainhealth.org.

— Krystal L. Culler, MA, a doctorate of behavioral health student, is the inaugural director of the Center 4 Brain Health at Menorah Park in Beachwood, Ohio, and an Amen Clinics Certified Brain Health Coach.

— Jessica M. Williams, BS, is program assistant for the Center 4 Brain Health at Menorah Park and a recent graduate of Bowling Green State University with a degree in neuroscience with a minor in biology.

References


