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Cognitive Health: An Overview of the Topic

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Cognitive Health: An Overview of the Topic

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“Cognitive Health should be defined not just by the absence of disease, but rather as the development and preservation of the multidimensional cognitive structure that allows the older adult to maintain social connectedness, an ongoing sense of purpose, and the abilities to function independently, to permit functional recovery from illness or injury, and to cope with residual functional deficits”

Hendrie et al., 2006, p. 13
Cognitive Health versus Cognitive Aging

- In cognitive health the focus is on prevention versus treatment: preserving memory, thought, ability to carry out tasks, language, judgment, perception, and personal volition.
- Cognitive health should be placed within the context of public health.

- Cognitive Aging: refers to normal declines in cognition such as processing speed and some aspects of memory, language, visuospatial function, and executive function.

Harada et al. 2013; Anderson & McConnell, 2007
Much like physical health, cognitive health can be viewed along a continuum from normative functioning to mild cognitive impairment to severe dementia.
The NIH Cognitive and Emotional Health Project initiated in 2001 to critically analyze existing scientific literature in order to identify factors involved in cognitive and emotional health in the adult.

In 2005 the CDC partnered with the Alzheimer’s Association, National Institute on Aging, Administration on Aging, AARP, and other organizations to launch The Healthy Brain Initiative.
Cognitive and Emotional Health Project

Protective Factors

- Higher education
- Higher socioeconomic status
- Emotional support
- Higher baseline cognitive function
- Better lung capacity
- Exercise & physical activity
- Moderate alcohol use
- Vitamin supplementation

Hendrie, et al., 2006
Cognitive and Emotional Health Project

Factors Associated with Poor Outcomes

- Hypertension
- Diabetes
- Stroke or TIA’s
- Presence of infarcts or white matter lesions
- Low mood
- Higher BMI ratings

Hendrie, et al., 2006
Primary Care Practitioners

Practices and Perceptions

- Qualitative study examining PCP practices related to cognitive health.
  - Discussions occurred in the context of physical health, in response to functional changes, and upon request of a patient or family member.
  - Perceived questionable efficacy of current prevention strategies.
  - Time and patient reaction to recommendations seen as barriers to discussions regarding cognitive health.

Hochhalter et al. (2012) (from the Healthy Brain Initiative)
Screening for Cognitive Health

- MMSE
- Clock Drawing
- Mini-Cog
- Memory Impairment Screen
- Abbreviated Mental Test
- 7-Minute Screen
- Short Portable Mental Status Questionnaire
- Free and Cued Selective Reminding Test
- Informant Questionnaire on Cognitive Decline

Screening for cognitive impairment can detect dementia, but there is no empirical evidence that once screened, decision making around treatment improves. It remains unclear if interventions for patients have a clinically significant effect in persons with early detected cognitive impairment.

Lin et al., 2013
Current Research Foci

- Cardiovascular Risk Factors
- Depression and Anxiety
- Psychosocial factors
- Physical Activity
- Diet

- Chronic Illness
- Cognitive Training/Mental Activity
  - Attention and concentration
  - Problem solving
  - Memory
……“around half of the risk for dementia is attributable to lifestyle factors such as diet, exercise and smoking, this risk is accrued throughout life, so attempts to ameliorate risk need to start early. There is growing evidence that modifiable risk factors for dementia act from the earliest stages of life, including in utero”. 

Avoid parental smoking

Detect & treat ADHD

Continue in education

Optimise diet & nutrition

Exercise regularly

Detect & treat depression, thyroid disease, hormone & vitamin imbalances

Avoid smoking

Maintain a healthy weight

Manage hypertension

Detect and treat diabetes

Maintain cognitive activity

Monitor for cognitive decline

Treat earliest signs of dementia

Use cognitive compensation strategies & devices

References

- Anderson LA, Day CL, Beard RL, Reed PS & Wu B. The public’s perceptions about cognitive health and Alzheimer’s disease among the US population: A National review. The Gerontologist, 49(S1), S3-S11.