



Keeping a Sharp Mind on a Budget for Older Adults

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What are Executive functions? (And why they matter)

In simplest terms, executive functions are higher-order abilities that can fall under regulation or organization.

Regulation:

- Emotional Regulation
- Moral Reasoning
- Displaying context specific behavior

Organization:

- Planning
- Problem Solving
- Working Memory
- Attention
- Sequencing

(UCSF Weill Institute for Neurosciences, 2020).

Problem:

It has been known that there is a decline with executive function and cognitive abilities with normal aging. Specifically in abilities such as working memory, task switching, attention, speed processing, and problem solving! For those reasons, we're going to focus on the functions that fall under this box. Some studies have suggested disadvantages associated with racial minority status and low socioeconomic status relative to predictors such as literacy and years of education.

Barney et al, p. 236, 2015

Dotson et al., 2009

Emory University Goizueta Alzheimer's Disease Research Center, 2019

Kirova et al., 2015

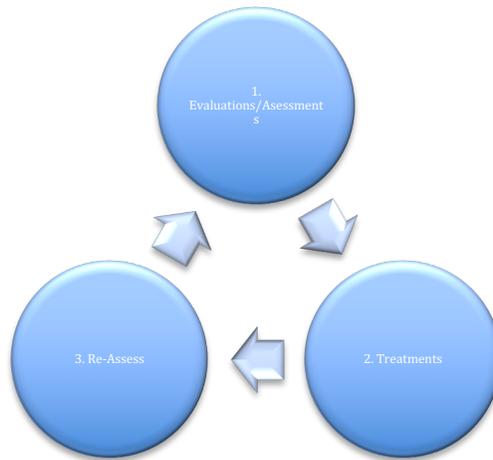
Why it matters:

It has been found executive function is a good predictor of functional status in normal aging. Assessing the status of executive function is way to gauge an individual's current and future care needs that supports independence.

Kirova et al., 2015

What can an occupational therapist do for you? (Treatments)

Okay now that the facts are out of the way, let's get to the fun part (and probably why you're here). How can an occupational therapist (OT) help with executive functions? The short answer: a lot. Below are the steps to getting treatments or as OT's like to call them interventions:



1. Evaluations/ Assessments:

This is where the OT gets to know you and your goals as much as possible. Think of this as the starting point where an OT gather's information on where you are at with executive functions in order to help you improve and later keep track of your progress.

2. Treatments:

Here the OT uses the information from the evaluation phase to tailor the treatment to best help you. Treatments are going to vary depending but here are some possible interventions an OT can do to help with executive function:

• **Social Engagement:**

Cost- FREE & Up

One study found that low social support, living alone, low social activity, and boredom-proneness is associated with reduced cognitive function. Yes, you social butterflies are thriving! Social engagement encourages participation in the community. Social engagement can take any form that is best for you! Here are some ways you could step up your social engagement: (Go to resources for more info)

- Volunteer
- Join a club or group
- Create an event
- Cooking class
- Dance class
- Arts and crafts club
- Game nights
- Trivia nights
- Karaoke nights

- **Physical Activity:**

- **Cost- FREE & Up**

Before you go rolling your eyes, the fact is studies have suggested that older adults who engage in more physical activity show better performance on executive function tests (Kirova et al., 2015). Don't confuse physical activity with just exercise. Physical activity includes ANYTHING that involves movement; the sky's the limit. Just about anything can be modified to your physical ability and interest. Here are a few examples to get you thinking about what you like: (Go to resources for more info)

- Gardening
- Dancing
- Bowling
- Walks (at the mall or with a dog)
- Bike rides
- Swimming or water aerobics
- Golf
- Yoga
- Volunteering
- Deep cleaning
- Hula hoop

- **Brain Stimulating Games:**

- **Cost- FREE to \$10.97**

The saying "use it or lose it" applies to many things! Games such as chess and bridge demand executive functions such as working memory and reasoning skills. Even crossword puzzles have been associated with maintenance in cognition in older adults (Williams & Kemper, 2010).

- ***Chess online- FREE**

Link: <https://www.chess.com/play/computer>

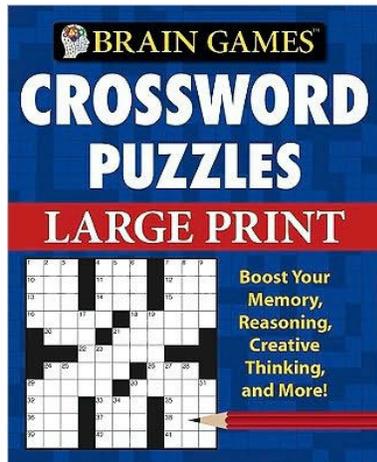
- ***Chess board- \$10.97**

Link: https://www.amazon.com/Pressman-3224-06-Family-Classic-Chess/dp/B00070WJ7G/ref=sxin_7_ac_d_rm?ac_md=0-0-Y2hlc3MgYm9hcmQ%3D-ac_d_rm&cv_ct_cx=chess+board&dchild=1&keywords=chess+board&pd_rd_i=B00070WJ7G&pd_rd_r=58e1a28a-3985-4294-961c-8a54f85123a0&pd_rd_w=dguqX&pd_rd_wg=Bk5Tn&pf_rd_p=a0516f22-66df-4efd-8b9a-279a864d1512&pf_rd_r=C4010T75KVTAG23JJ841&psc=1&qid=1591918483&sr=1-1-12d4272d-8adb-4121-8624-135149aa9081

- ***Bridge online- FREE**

Link- <https://www.arkadium.com/games/bridge/>

***Crossword puzzles- \$9.98**



Link: https://www.amazon.com/Brain-Games%C2%AE-Crossword-Puzzles-Unnumbered/dp/1412777615/ref=sr_1_3?crd=2DV3GPYJ7I5SQ&dchild=1&keywords=crossword+puzzle+books+for+adults&qid=1591918022&sprefix=cross%2Caps%2C348&sr=8-3

3. Re-Assess:

The OT will re-evaluate you to make sure you're making progress and reaching your executive function goals!

Resources for keeping a sharp mind

Social Engagement focused:

1. How to create an event on Facebook:

Cost: FREE & Up



Are you a social butterfly? Do you love having any reason to celebrate? Why not take the lead? Create an event on Facebook and invite your friends or family (**make sure to stay updated on the latest COVID-19 restrictions**)! This requires executive functions such as planning, organizing, sequencing, and problem solving.

Here's a video link to get you started:

<https://www.youtube.com/watch?v=u91GcMGsQLY>

2. Volunteer locally:
Cost: FREE

The Metro Detroit area has an abundant of volunteer opportunities! Ranging in animal rescues, community centers, food pantries, youth programs, educational activities, environmental restoration, health, and wellness. Pick something your passionate about helping!

Here's a link to help you get started:

<https://www.hourdetroit.com/web-exclusive/your-guide-to-volunteering-around-metro-detroit/>

Physical activity focused:

1. Yoga
Cost: FREE

Follow along with yogi Cassandra from the comfort of your own home at your own time!



Link to her page: <https://www.youtube.com/user/yogawithkassandra>

Recommended starting place: Gentle Chair Yoga for Beginners and Seniors
<https://www.youtube.com/watch?v=1DYH5ud3zHo>

2. Dance Class
Cost: FREE

Dance along with Jenny as she teaches you line dances such as the electric slide and the cupid shuffle!

Link: <https://www.youtube.com/watch?v=uZXQuqPnp8g>

BOTH social & physical activity focused:



Grab a friend or family member and check out some of the best weekend activities for seniors in the city of Detroit:

<https://detroit.cbslocal.com/top-lists/best-weekend-activities-for-seniors-in-detroit/>

Other professions that can help

- **Primary Care Physician-** can diagnose, treat, and prescribe medicine that may help with executive functions and aging! They can also refer you to specialists for further treatment.
- **Physical Therapist-** can help with movement and physical activity! Studies have shown gait patterns and cognition are highly associated with each other (Ijmker & Lamoth, 2012).
- **Clinical Psychologist-** can help with emotional, mental, personality, and performance diagnosis. All of which are under the influence of executive functioning.

How these solutions help YOU in occupational engagement:

These treatments and resources encourage engagement in aspects of community social life! While the overall goal is preventive care in executive functions and cognitions, the second objective is to have fun and be engaged! For example, the solutions above provide access on ways to give back to Detroit through volunteering. Another way is by just enjoying activities Detroit has to offer, like a trip to the Detroit Institute of Art. Hopefully this page has found something that peaked your interest to keep a sharp mind!

References

- Barney, K., & Perkinson, M. (2015). *Occupational Therapy with Aging Adults-E-Book: Promoting Quality of Life through Collaborative Practice*. Elsevier Health Sciences.
- Cognitive Skills & Normal Aging . (2019). In *Emory University Goizueta Alzheimer's Disease Research Center*. Retrieved from http://alzheimers.emory.edu/healthy_aging/cognitive-skills-normal-aging.html
- Conroy, R. M., Golden, J., Jeffares, I., O'Neill, D., & McGee, H. (2010). Boredom-proneness, loneliness, social engagement and depression and their association with cognitive function in older people: a population study. *Psychology, health & medicine*, 15(4), 463-473.
- Dotson, V. M., Kitner-Triolo, M. H., Evans, M. K., & Zonderman, A. B. (2009). Effects of race and socioeconomic status on the relative influence of education and literacy on cognitive functioning. *Journal of the International Neuropsychological Society*, 15(4), 580-589.
- Executive Functions . (2020). In *UCSF Weill Institute for Neurosciences- Memory and Aging Center* . Retrieved from <https://memory.ucsf.edu/symptoms/executive-function>
- Ijmker, T., & Lamoth, C. J. (2012). Gait and cognition: the relationship between gait stability and variability with executive function in persons with and without dementia. *Gait & posture*, 35(1), 126-130.
- Kirova, A. M., Bays, R. B., & Lagalwar, S. (2015). Working memory and executive function decline across normal aging, mild cognitive impairment, and Alzheimer's disease. *BioMed research international*, 2015. Retrieved from <https://www.hindawi.com/journals/bmri/2015/748212/>
- Williams, K. N., & Kemper, S. (2010). Interventions to reduce cognitive decline in aging. *Journal of psychosocial nursing and mental health services*, 48(5), 42-51.