

Occupational Therapy's Role in Adult Cognitive Disorders

Cognition refers to information-processing functions, including attention, memory, and executive functions (i.e., planning, problem solving, self-monitoring, self-awareness). *Functional cognition* is the interaction of cognitive skills and self-care, and community living skills. It refers to the thinking and processing skills needed to accomplish complex everyday activities such as household and financial management, medication management, volunteer activities, driving, and work. Occupational therapy practitioners focus their interventions on the relationship between the client's cognitive skills, functional performance, and environmental context to enhance the daily life experience of individuals with cognitive impairment.

Impairments in functional cognition are common and can result from multiple causes, including:

- *Human genetics and/or development* (e.g., environmental deprivation, fetal alcohol syndrome, learning disabilities, pervasive developmental disorders)
- *Neurologic disease, injuries, and disorders* (e.g., stroke, traumatic brain injury [TBI], Parkinson's and Huntington's diseases, HIV/AIDS, Alzheimer's disease and related major neurocognitive disorders [dementias], rheumatoid arthritis, diabetes, lupus, Lyme disease, multiple sclerosis, chronic fatigue syndrome, chronic obstructive pulmonary disease, cardiac and circulatory conditions)
- *Mental illness* (e.g., schizophrenia, major depressive disorder, bipolar disorder, substance use disorders))
- *Transient or continuing life stresses or changes* (e.g., stress-related disorders, pain syndromes, anxiety disorders, grief and loss)

Many medical conditions that impair functional cognition among adults 65 years and older are becoming more prevalent as the United States shifts toward having an increasingly older population.

Among young adults, cognitive impairment is often caused by injury, particularly TBI. There are 1.7 million such injuries each year in the United States, of which 75% are concussions or mild TBI (Faul, Xu, Wald, & Coronado, 2010). Among the civilian population, 80 to 90 thousand people annually sustain a permanent disability as result of TBI (Faul et al., 2010). Additionally, it has been estimated that up to 22% of American combat veterans have sustained a TBI (Okie, 2005), the long-term effects of which are not fully understood. In TBI, the hidden nature of the cognitive deficits are often referred to as the "silent epidemic" as the individual and their loved ones struggle with changes in abilities that are difficult to understand and are often not visible.

Occupational Therapy's Role in Cognitive Rehabilitation

Occupational therapy practitioners are experts at addressing the effects of cognitive deficits on daily life. Using a person-centered perspective, they work with the client, family, and involved others to set collaborative goals and intervention priorities. These usually begin with basic activities of daily living such as dressing, bathing, and grooming, and may progress to more difficult tasks such as preparing meals, doing laundry, driving, or returning to work. They may use one or more of the following approaches, depending on the needs and personal preferences of the client.

Global Strategy Learning and Awareness Approaches: Global strategy learning focuses on improving awareness of cognitive processes and assisting clients to develop their own compensatory approaches (e.g., internal problem-solving and reasoning strategies) to function as safely and independently as possible.



Domain-Specific Strategy Training: Domain-specific strategy training focuses on teaching clients strategies to manage specific perceptual or cognitive deficits, versus being taught the task itself. For example, teaching the person to use a personal digital assistant (PDA) can help compensate for memory or organizational difficulties.

Cognitive Retraining Embedded in Functional Activity: In cognitive retraining, cognitive processes are addressed within the context of the activity (e.g., attention retraining during driving reeducation).

Specific Functional Skills Training: For clients with more severe cognitive impairments, occupational therapy practitioners focus on improving a functional skill, “working around” the cognitive impairment to address the needed self-care or community living skill (e.g., dressing, crossing the street).

Environmental Modifications and Use of Assistive Technology: Environmental modifications and simplifications are a component of most of the approaches described. Part of the process of occupational therapy intervention involves addressing the complexity of what the person needs to do and altering environmental contexts to enhance the match between the client’s abilities and the environmental demands (American Occupational Therapy Association, 2013).

Occupational therapy practitioners provide interventions to address problems in functional cognition across all health care settings, including acute care, rehabilitation centers, skilled nursing facilities, outpatient facilities, the home, and community settings. Within these contexts practitioners often work as part of an interdisciplinary team to address all aspects of the person’s health care needs.

When the cognitive disorder has a gradual onset and degenerative course, as occurs in many major neurocognitive disorders (dementias), the client will usually be seen at home or in a setting with supervision, such as adult day care, an assisted living facility, an outpatient clinic, or a nursing home. Intervention includes developing strategies, often in conjunction with caregivers, that improve the person’s competency and sense of emotional well-being, such as adapting the environment, setting up compensatory strategies, and reorganizing and simplifying tasks. Progressive cognitive disorders worsen over time, but with appropriate treatment, clients can often remain independent in self-care and other activities well into the disease process.

Conclusion

Occupational therapy practitioners play a vital role in addressing the needs of adults with cognitive impairments that impact self-care and community living skills. Addressing deficits in functional cognition that enable individuals to participate more fully in self-care, work, leisure, and community activities enhances quality of life while reducing the burden on caregivers and societal resources.

References

- American Occupational Therapy Association. (2013). Cognition, cognitive rehabilitation, and occupational performance. *American Journal of Occupational Therapy*, 67, S9–S31. <http://dx.doi.org/10.5014/ajot.2013.6789>
- Faul, M., Xu, L., Wald, M. M., & Coronado, V. G. (2010). *Traumatic brain injury in the United States: Emergency department visits, hospitalizations, and deaths 2002–2006*. Retrieved from https://www.cdc.gov/traumaticbraininjury/pdf/blue_book.pdf
- Okie, S. (2005). Traumatic brain injury in the war zone. *New England Journal of Medicine*, 352, 2043–2047. <http://dx.doi.org/10.1056/NEJMp058102>

Updated by Gordon Muir Giles, PhD, OTR/L, FAOTA. Copyright © 2017 by the American Occupational Therapy Association. This material may be copied and distributed for personal or educational uses without written consent. For all other uses, contact copyright@aota.org.

Living Life To Its Fullest™
O C C U P A T I O N A L T H E R A P Y

Occupational therapy enables people of all ages live life to its fullest by helping them to promote health, make lifestyle or environmental changes, and prevent—or live better with—injury, illness, or disability. By looking at the whole picture—a client’s psychological, physical, emotional, and social make-up—occupational therapy assists people to achieve their goals, function at the highest possible level, maintain or rebuild their independence, and participate in the everyday activities of life.

