



Enhancing Independence and Quality of Life: Occupational Therapy in Traumatic Brain Injury Rehabilitation

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Alzheimer's disease and its impact on everyday life

Alzheimer's disease (AD) is a progressive disorder affecting the nervous system and is marked by a decline in memory, cognition, behaviour, and functional capabilities. While cognitive deterioration remains a major concern, the true impact of AD is experienced in everyday life. Problems with self-care, housework, communication, leisure activities, and social participation gradually affect independence, sense of identity, relationships with carers, and overall quality of life. Neurological care should therefore not stop at assessing cognitive decline but should also focus on preserving meaningful participation [1,2].

Occupational participation in Alzheimer's disease

Occupational participation refers to taking part in meaningful and purposeful activities that provide structure, identity, autonomy, and social connection. Even as cognitive ability declines, occupations such as cooking, gardening, dressing, music, hobbies, and family routines can remain meaningful. Supporting participation in these activities may therefore constitute an important aspect of dementia rehabilitation [1,2].

From a deficit-focused to a person-centred approach

There is a need to shift from a deficit-focused approach to a person-centred approach. Although cognitive assessment remains important, cognitive scores alone may not properly

reflect functional ability or quality of life. People can continue participating in familiar occupations when provided with suitable cues, environmental modifications, simplified tasks, structured routines, and graded assistance [1,3].

Occupational and non-pharmacological interventions

There is evidence supporting occupation-based interventions, physical exercise, and error-reduction learning in adults with Alzheimer's disease and other major neurocognitive disorders. Occupational therapy guidelines include cognitive therapy, reminiscence, exercise, sensory interventions, nonpharmacological behavioural interventions, and education and training for carers. These approaches highlight the importance of addressing functional performance and participation alongside cognitive symptoms [1,2].

Implications for neurological rehabilitation

Moving beyond cognitive decline does not reduce the importance of cognition; rather, it recognises how cognition affects the way individuals live and participate in meaningful occupations. Including occupational participation in Alzheimer's disease management could therefore support a more person-centred, functionally appropriate, and meaningful approach to neurological rehabilitation [1,2].

Functional and participation-based outcomes in neurological rehabilitation

Alongside cognitive assessments, neurological rehabilitation should consider activities of daily living, functional cognition, occupational performance, participation, quality of life, and caregiver burden. Clinically meaningful outcomes, such as maintaining independence, safety, social participation, and remaining at home, may better reflect dementia's real-world impact [1,4].

Role of occupational therapists in supporting participation

Occupational therapists have a special role in translating neurological impairment into practical strategies for everyday life through task modification, environmental adaptation, visual and verbal cues, structured routines, activity grading, and caregiver education. Meaningful occupation can contribute to a person's sense of identity by connecting routine activities with past roles, interests, and life experiences, thereby supporting dignity and emotional well-being. As functional dependence increases, caregiver demands may also increase. Education and training can help caregivers provide appropriate assistance while encouraging continued participation [2-4].

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