

Neuropsychology and Cognitive and Emotional Changes in the Elderly and Measurement and Documentation of Functional Deficits, and Exacerbation in Brain Injury Cases

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NURSING DIAGNOSES TO CONSIDER NANDA-I 2024-2026

1. Impaired Memory 2. Impaired Decision Making
3. Impaired Mood Regulation 4. Disrupted Thought Processes 5. Chronic Confusion

The mean age of older adults in the US has increased dramatically, with the 65+ population rising from 12.4% in 2004 to 18.0% in 2024 (US Census Bureau, 2024). As a result, there has been an increase in the reported cases of Major Neurocognitive Disorders (MNDs) (American Psychiatric Association, 2013). Dementia is perhaps the best known and most common MND, and there are several different types, including Alzheimer's Disease, vascular dementia, and frontotemporal dementia. The aging process presents other

challenges, with older patients suffering from a wide range of other issues, such as significant psychological disturbances, a decline in physical health, an increase in chronic illness, social isolation and loneliness, life changes and stress, and medication (CDC, 2024). During a neuropsychological assessment, all of these potential issues must be considered to ensure the best results for that assessment. Coordination between neuropsychologists and life care planners ensures that clients receive the best treatment to accommodate changes related to the aging process.

People have a lot of preconceived notions of how dementia presents, with the term dementia conjuring up psychiatric dysfunction seen in some mental health disorders, such as Schizophrenia. Typically, people associate a dementia diagnosis with the way Alzheimer's Disease presents, including cognitive, emotional, personality, and other changes. Not all forms of dementia have these changes. Dementia is a general term that involves a loss of cognitive functioning (including memory, language, problem-solving/executive functioning, and other thinking abilities) that are severe enough to interfere with daily life. While Alzheimer's Disease is the most common cause of dementia/MND

(Alzheimer's Association, 2024), patients can be diagnosed with MND/dementia who have a variety of other medical problems. Patients can also be diagnosed with a Mild Neurocognitive Disorder while presenting with the same or similar symptoms as Alzheimer's Disease and other forms of dementia.

The life care planner's work is critical when persons have cognitive and psychological difficulties in older age.

Functional and Neuropsychological Assessments of Elderly Clients

The assessment and measurement of both a client's cognitive status and their psychological/psychiatric status are critical to providing proper care. As a neuropsychologist, I conduct evaluations to determine if my patient is changing in a normal fashion for age or if they are changing in an atypical fashion. I then evaluate the psychological status with good instrumentation (Table 1) and use data from the person's life to make determinations of the potential presence of a dementing process and/or psychological disorder. This provides a foundation for the life care planner to help the medical practitioners, the client, and the client's family to develop a comprehensive, customized, and evolving plan. Over time, they will be better able to manage the client's health, financial, and legal needs to ensure the highest quality of life. They can more easily assess care needs, coordinate medical and home services, navigate long-term care options, and protect assets. Life care plans can bridge gaps in care by working with elder law attorneys based on the results of the assessment.

Neuropsychological evaluation is a comprehensive process that involves the following tasks:

- A review of all medical records
- A client/patient interview
- An interview with significant others and other sources of information (e.g., work records)
- An extensive cognitive and psychological testing.

A good neuropsychologist thinks of an evaluation as an opportunity to answer specific and functional questions from the referring source (e.g., physician, attorney, caseworker, person served, or their family/guardians/powers of attorney).

Cognitive testing (Table 1) done in elderly evaluation cases should be appropriately age-based and include the following:

- Newest versions of intellectual assessment (e.g., the Wechsler Adult Intelligence Scale)
- Memory and learning (e.g., the Wechsler Memory Scale)
- Assessment of language skills, visual-perceptual skills, attention/concentration, frontal/executive function skills, and basic academics

Real-life, functional data should be obtained in extensive interviewing of spouses, children of the patient, and other sources as available and appropriate. This is critical, as the first indicators of a dementing process are often seen in life scenarios, even with cognitive testing showing no clear atypical declines. At the same time, while there are great medical advances in neuroimaging, volumetric brain assessment, biomarkers potentially indicative of a dementing process and/or other brain dysfunction, cognitive testing is also extremely sensitive to early cognitive changes, especially in cases of early dementias.

Psychological testing (Table 1) often includes the following:

- Personality assessment (e.g., the Minnesota Multiphasic Personality Inventory)
- Extensive clinical interviews
- Mood assessment (e.g., the Beck Depression Inventory)
- Anxiety status assessment (e.g., the Beck Anxiety Inventory)

Table 1 - Key Elements of Neuropsychological and Functional Assessment in the Elderly

Assessment Domain	Example Instruments	Informant Sources	Clinical Relevance
Intellectual Function	WAIS-IV	Patient	Baseline cognitive ability
Memory	Wechsler Memory Scale	Patient, Family	Early indicator of dementia
Language	Boston Naming Test	Patient	Aphasia, word-finding difficulties
Executive Function	Trail Making Test, WCST	Patient, Family	Planning, problem-solving deficits
Mood/Psychological Status	BDI, BAI, MMPI	Patient, Collaterals	Depression, anxiety, personality changes
Functional Status	Lawton IADL, Barthel Index	Family/Informants	Real-life impact of cognitive changes

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for the Beck Depression Inventory-II*. Psychological Corporation.

Beck, A. T., & Steer, R. A. (1990). *Manual for the Beck Anxiety Inventory*. Psychological Corporation.

Wechsler, D. (2008). *Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV)*. Pearson.

Wechsler, D. (2009). *Wechsler Memory Scale-Fourth Edition (WMS-IV)*. Pearson.

Butler, M., Kane, R. L., & McAlpine, D. (2008). Does Cognitive Training Prevent Cognitive Decline? *Annals of Internal Medicine*, 148(1), 60-61. Retrieved on March 12, 2026, from <https://doi.org/10.7326/0003-4819-148-1-200801010-00211>.

Coordinated Efforts between Neuropsychologists and Life Care Planners

When clients have more than one medical and/or psychological/psychiatric condition, a neuropsychologist is trained to evaluate the complexity of the multiple factors that are contributing to the decline/dysfunction during daily activities. Neuropsychologists opine as to causative variables and how to address those factors. They then communicate to the life care planner specific intervention strategies to address them. These recommendations are considered critical in legal cases since the neuropsychologist is the professional who can appropriately differentiate the causation related to those multiple factors (e.g., the organic and the psychological) and the damage to both cognitive and psychological abilities. These conclusions are used in legal cases to determine causation and damages, and to allow the life care planner to proceed with the determination of life-long services, which will be necessary for that individual.

There are more typical cognitive changes that occur in aging; memory is a critical factor in determining the presence of a dementia/MND. A comprehensive neuropsychological evaluation is necessary in order to assess for what that professional knows is typical, normal aging versus a possible indicator or nontypical/nonnormal change indication.

In addition, people naturally have typical ups and downs psychologically. As a result, normal adjustment to difficult circumstances has to be considered by mental health professionals when making determinations/diagnoses of mental health conditions.

Some neuropsychologists are trained to translate testing data/scores into more practical, functional recommendations to the life care planner as specific recommendations for treatment, course of treatment (at least the initial course), and longer-term estimations of need for treatment. This allows for coordination with the life care planner as to the costs associated with the client's activities of daily living. There is no point-to-point correspondence between test scores and these determinations. The two practitioners can – and should (though some professionals are not as attuned to such collaboration) – discuss the case and help documentation by the neuropsychologist and the life care planner reflect practical recommendations.

It is particularly helpful if the evaluator in these cases has direct, connected access to rehabilitation therapies. For example, at On With Life, in Ankeny, Iowa, there is a team that works jointly and collaboratively in completing evaluations, and includes neuropsychology, psychological counseling, physical therapy, occupational therapy, and speech/language/cognition therapies. Their evaluations include neurological cases, such as traumatic brain injury (TBI), stroke/cerebrovascular accidents, and other

neurological disorders, and they consider if they can rule out psychological factors. All therapy disciplines are involved in the case as requested by the referrer, and/or the rehabilitation team will make recommendations about getting these complementary evaluations done. Each of the therapists/disciplines has their own professional evaluations. While these can overlap, therapists will communicate with the other members of an evaluative team or pass on their own evaluations to recommend other disciplines. There is no need to ask for a special evaluation to be done, although this kind of collaboration is not seen nearly as often or easily outside of a rehabilitation facility that has all the disciplines available and that takes a strong team focus. Funding mechanisms can also determine whether it is possible to have the rehabilitation team involved as a whole; this can be discussed between the person making the assessment and the life care planner.

Assessing Elderly Clients with a Psychological Condition and a Brain Injury

Elderly care is a greater concern when there is an overlay of another brain injury in addition to the root cause of the changes seen prior to that injury. Neuroplasticity, also known as neural plasticity or brain plasticity, is a process that involves adaptive structural and functional changes to the brain. It is defined as the ability of the nervous system to change its activity in response to intrinsic or extrinsic stimuli by reorganizing its structure, functions, or connections after injuries, such as a stroke or TBI (National Institutes of Health, 2023).

Having a brain injury can change “the nature of the beast” in a problem that presented itself prior to the injury. There are similar and dissimilar features of the patterns of cognitive disturbances that are seen in TBI compared to other cognitive disturbances caused by dementia/MND. In addition, if the person carried a diagnosis of a psychiatric condition before a brain injury, that person can still present with symptoms of that premorbid (prior to injury) condition. However, it can also present in an odd, skewed, or dissimilar fashion.

It's important to keep in mind that there are many times in which inappropriate diagnoses are given to persons having brain damage/dysfunction due to their presentation of symptoms that look superficially like another condition/diagnosis. For example, a medical professional could diagnose schizophrenia in a person with brain dysfunction that causes confusion because it looks like delusions, or they could diagnose manic depression in a person with brain dysfunction that causes notable mood swings. The symptoms are similar, leading to the misdiagnosis. This can be mediated by having a neuropsychologist involved in the diagnostic conceptualizations of the individual with brain damage or

dysfunction. The neuropsychologist helps determine the primacy of a mental health diagnosis, including taking the patient's history into account, versus presentation post-brain injury/dysfunction that "mimics" the signs/symptoms of a primary, specific mental health diagnosis.

Case Study

I partnered with a life care planner to assist an elderly woman in a brain injury rehabilitation center/agency who had had a severe Feeding and Eating Disorder (ED) (DSM-5) – Bulimia Nervosa. She had received professional (both outpatient and inpatient) treatment in her history, with less-than-optimal treatment success into adulthood. She sustained a brain injury related to diabetic coma. Her ED symptoms returned but presented differently due to confusion, memory, and cognitive dysfunction associated with her brain injury. In addition, as her cognitive status improved over time, she benefited from alterations to treatment approaches, which changed the nature of the future service needs.

In collaboration with the life care planner on this case, we engaged in detailed discussions regarding the practical aspects of the patient's care following post-acute rehabilitation provided by the agency. Together, we evaluated potential sources of ongoing treatment, associated costs, anticipated durations of care, and the scope of outpatient services, including professional counseling. We jointly considered whether these services would be most appropriately delivered by brain injury rehabilitation specialists, ED professionals, or a combination of both. Through this collaborative process, we developed an integrated care approach that leveraged the expertise of both disciplines, resulting in a more effective and comprehensive plan for the patient.

Best Practices for Life Care Planners

Life care planners are encouraged to collaborate with neuropsychologists or other healthcare professionals who value and actively engage in a team-based approach to care. Effective collaboration provides opportunities to ask questions, clarify the goals and scope of evaluations, and translate assessment findings into practical, real-world recommendations that support comprehensive life care planning. While not always the standard practice, it is beneficial for neuropsychologists to complete their reports within two weeks of seeing a client, as life care planners rely on timely and accurate information. Communicate clearly and assertively with the neuropsychologist about your specific needs to ensure you can provide the highest quality service to your clients.

The Benefits of Collaborating with Neuropsychologists for Elder Care

Life care planners should consult with a neuropsychologist (or other health care practitioner) who is not just available with a phone call, but who enjoys, appreciates, and understands the importance of collaborative care. This collaboration allows participants to ask questions, clarify the intent of the evaluation and questions to be answered, and to translate testing data into real-life recommendations, which helps the life care planner. While this may sound obvious, neuropsychologists should get their reports done within two weeks of seeing a client; unfortunately, this is not standard practice. The life care planner and others are awaiting those reports to finish their work. When needed, it is fine to be assertive with the neuropsychologist who is involved in the case to ensure you have what you need to develop a more comprehensive life care plan for the complex needs of an elderly client.

REFERENCES

- Alzheimer's Association. (2024). *2024 Alzheimer's Disease Facts and Figures*. Alzheimer's & Dementia, 20(4), 700-789. Retrieved on March 12, 2026, from <https://www.alz.org/alzheimers-dementia/facts-figures>
- American Psychiatric Association. (2013). *DSM-5, Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Retrieved on March 12, 2026, from <https://doi.org/10.1176/appi.books.9780890425596>
- Centers for Disease Control and Prevention. (2024). *The Mental Health of Older Adults*. Retrieved on March 12, 2026, from <https://www.cdc.gov/aging/mentalhealth/index.html>
- National Institutes of Health. (2023). *Neuroplasticity: The Brain's Ability to Reorganize Itself after Injury*. National Institute of Neurological Disorders and Stroke. Retrieved on March 12, 2026, from <https://www.ninds.nih.gov/health-information/patient-caregiver-education/hope-through-research/brain-basics-neuroplasticity>
- U.S. Census Bureau. (2024). *An Aging Nation: Projections of the Population Aged 65 and Older in the United States: 2020 to 2060*. Retrieved on March 12, 2026, from <https://www.census.gov/library/publications/2014/demo/p25-1140.html>