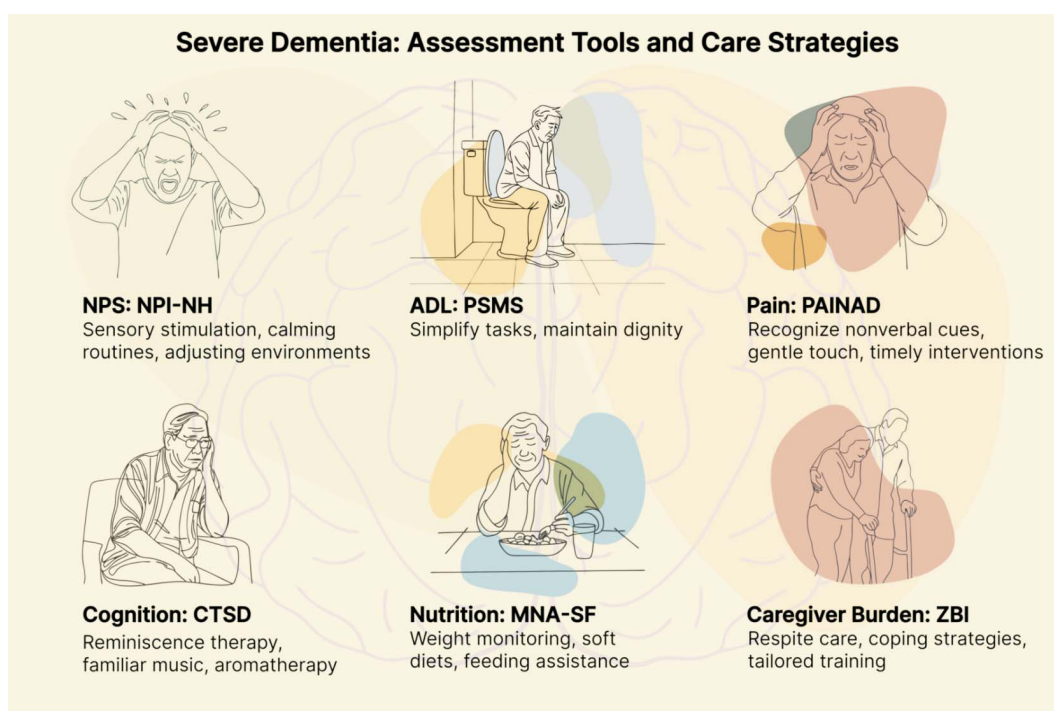# International Journal of Gerontology

Editorial Comment

Twilight Abilities in Severe Dementia: Assessment Tools and Care Strategies

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Figure. Assessment and Management of Severe Dementia.
This graphical abstract depicts a comprehensive approach to the care of individuals with severe dementia, emphasizing specialized assessment tools and tailored management strategies. Key domains include neuropsychiatric symptoms (NPS), activities of daily living (ADL), pain, cognition, and nutrition, with corresponding assessment tools (NPI-NH, PSMS, PAINAD, CTSD, MNA-SF) and interventions. Caregiver support is also highlighted, assessed via tools like the ZBI, and addressed through respite care and counseling. This multifaceted approach aims to optimize patients' and caregivers' quality of life. – Image generated by Recraft.

1. Introduction

Dementia is a neurodegenerative disorder characterized by progressive cognitive decline and functional impairments, affecting millions worldwide. As the disease advances, caregiving demands intensify, placing significant burdens on families and healthcare systems. Effective management of severe dementia requires comprehensive functional assessments to inform tailored care strategies that preserve patient abilities, support caregivers, and enhance quality of life. Traditional cognitive assessment tools, such as the Mini-Mental State Examination (MMSE) and Alzheimer's Disease Assessment Scale (ADAS), have limitations in advanced dementia. These tools often encounter a "floor effect," rendering them incapable of distinguishing further cognitive decline in severely impaired patients.[1] Furthermore, severe communication difficulties complicate the eva-luation of neuropsychiatric symptoms. Specialized assessment tools are thus essential to provide a multidimensional understanding of patient needs, encompassing activities of daily living (ADL), cognition, neuropsychiatric symptoms, nutrition, and pain management.

2. Recommended assessment tools

1. Activities of Daily Living (ADL): Physical Self-Maintenance Scale (PSMS) – The PSMS evaluates basic self-care abilities, including eating, dressing, and bathing. Its individualized assessment approach accounts for patient-specific factors, enabling precise adjustments to care plans as needs evolve.[2]
2. Cognitive Function: Cognitive Test for Severe Dementia (CTSD) – Unlike traditional tools, the CTSD offers high sensitivity for detecting cognitive changes, even in non-verbal patients. It is particu-

larly effective for monitoring disease progression and evaluating treatment outcomes in advanced dementia.[3]

3. Behavioral Symptoms: Neuropsychiatric Inventory – Nursing Home Version (NPI-NH) and Cornell Scale for Depression in Dementia (CSDD) – The NPI-NH assesses a range of neuropsychiatric symptoms, including agitation and hallucinations, while the CSDD identifies depressive symptoms, even in patients with impaired communication. Together, these tools enable targeted behavioral interventions.[2,4]

4. Nutritional Status: Mini-Nutritional Assessment Short Form (MNA-SF) – Nutritional health is critical for patients with severe dementia, who are at risk of malnutrition due to reduced appetite and feeding difficulties. The MNA-SF assesses parameters such as weight and dietary intake, guiding timely interventions to address deficiencies.[2]

5. Pain: Pain Assessment in Advanced Dementia (PAINAD) – Pain in non-verbal patients often goes unrecognized. The PAINAD tool evaluates observable indicators like facial expressions and body movements, ensuring appropriate pain management.[2,5]

3. Care strategies

1. Preservation of Abilities – Supporting retained abilities fosters autonomy and dignity. For example, patients capable of partial self-feeding should be encouraged to do so, using adaptive utensils as necessary. This approach preserves motor skills and enhances engagement.[2,3]

2. Cognitive Stimulation – Personalized interventions, such as reminiscence therapy or music therapy, can elicit positive emotional responses and engagement. These activities should be tailored to individual preferences and past experiences.[3]

3. Management of Behavioral and Psychological Symptoms – Non-pharmacological approaches, including sensory stimulation and aromatherapy, are first-line strategies for mitigating agitation and aggression. Structured and calm environments further help reduce neuropsychiatric symptoms.[3,4]

4. Nutritional Support – Strategies such as providing nutrient-dense, easy-to-consume foods and offering meals in a familiar, calm setting can significantly improve nutritional outcomes. In cases of insufficient oral intake, nutritional supplements or modified feeding techniques may be employed to maintain adequate nutrition.[2]

5. Pain Management – Pain should be managed through non-pharmacological methods, such as gentle massage, temperature therapy, and relaxation techniques. Pharmacological interventions should be reserved for cases where non-pharmacological strategies fail.[5]

6. Caregiver Support – Caregiver well-being is integral to dementia care. Tools such as the Zarit Burden Interview (ZBI) and the Caregiver Strain Index (CSI) help evaluate the levels of stress and burden experienced by caregivers, which can guide the provision of support services. Support services, including respite care, counseling, and community resources, are crucial for sustaining caregiver well-being. Regular assessment of caregiver stress can also prevent burnout and enhance the overall quality of care provided.[6,7]

4. Conclusion

Managing severe dementia requires tools and strategies that extend beyond traditional assessments. Instruments like the CTSD, PSMS, NPI-NH, MNA-SF, and PAINAD offer comprehensive evaluations, while tailored care strategies address patient and caregiver needs. Future efforts should focus on integrating these tools into routine care and addressing implementation barriers, such as training and resource limitations. A multidimensional approach is crucial to enhancing the quality of life for patients and their families.

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