

Preserving Cognitive Function Through Structured Dementia Care Protocols Among Older Adults

A Narrative Review of Multidomain Clinical and Nursing Strategies

Nicholas.S, Research Scholar, Malwanchal University

Prof Dr Aseem B, Research Supervisor, Malwanchal University.

Abstract

Preserving cognitive function in older adults with dementia requires more than periodic cognitive testing or isolated therapeutic activities. Structured dementia care protocols coordinate assessment, treatment, rehabilitation, nursing surveillance, environmental support, and caregiver participation around an individualized baseline. Their realistic aim is to slow avoidable decline, maintain everyday abilities, and protect attention, communication, participation, and decision-making for as long as possible. This narrative review examines the clinical components and evidence supporting such protocols. Effective pathways distinguish progressive neurocognitive disease from delirium, depression, medication effects, sensory loss, and other treatable contributors. They combine cognitive stimulation and goal-oriented rehabilitation with physical activity, vascular-risk management, hearing and vision care, medication review, adequate sleep, nutrition, and social engagement. Evidence indicates that cognitive stimulation provides modest cognitive benefit, whereas individualized rehabilitation can improve performance of personally meaningful activities. Multidomain lifestyle interventions may support cognition in at-risk older adults, although benefits vary by population and cannot be assumed in established dementia. Hospital protocols that prevent delirium are especially important because acute confusion can produce sustained functional and cognitive loss. Person-centred care and caregiver education strengthen adherence and reduce distress, even when global cognitive scores do not improve. Protocol effectiveness depends on trained staff, clear responsibilities, continuity across settings, and repeated measurement of cognition, function, behavior, quality of life, safety, and caregiver outcomes. Structured dementia care cannot eliminate neurodegeneration, but it can preserve remaining ability by reducing preventable burdens and matching support to each person's goals.

Keywords: *cognitive preservation, dementia care protocol, older adults, cognitive stimulation, rehabilitation, delirium prevention*

Introduction

Dementia progressively affects memory, language, orientation, reasoning, and the ability to manage daily life. The World Health Organization (WHO, 2026) estimates that 57 million people were living with dementia in 2021 and that nearly 10 million new cases occur annually. Alzheimer disease is the most common cause, but vascular, Lewy body, frontotemporal, mixed, and other conditions create different



patterns of impairment. Older adults also commonly experience frailty, cardiovascular disease, sensory loss, depression, pain, and polypharmacy. These conditions interact with cognitive symptoms and can make decline appear faster than the underlying disease alone would predict.

Structured dementia care protocols reduce this fragmentation. A protocol defines the assessments to complete, interventions to offer, review intervals to follow, changes that require escalation, and responsibilities of the multidisciplinary team. Standardization improves reliability, but it should not produce identical care for every person. Person-centred practice requires staff to understand the individual's history, preferences, routines, culture, language, strengths, and goals (Fazio et al., 2018).

Preservation does not necessarily mean that a screening score remains unchanged. It may mean that the person can continue dressing with prompts, recognize and use familiar objects, participate in conversation, avoid delirium, or remain safely engaged in community life. These outcomes reflect cognition as it operates in everyday settings. A useful protocol therefore measures cognitive performance alongside function, behavior, safety, and quality of life.

Defining Cognitive Preservation

Dementia usually progresses despite good care, so protocol goals must remain clinically honest. Cognitive preservation refers to maintaining remaining abilities, limiting secondary insults, and supporting successful performance despite impairment. A small improvement on a test may be valuable, but it is not the only marker of benefit. Stabilization can be meaningful when decline would otherwise be expected, although observational stability cannot by itself prove that an intervention worked.

Preservation operates through several pathways. Cognitive stimulation activates memory, language, attention, and social interaction. Rehabilitation changes tasks or environments so that impaired processes place fewer demands on the person. Medical care reduces vascular injury and treats pain, infection, depression, sleep problems, and sensory loss. Nursing care prevents dehydration, immobility, delirium, and medication-related confusion. Caregiver support helps strategies continue outside formal clinical encounters. The 2024 Lancet Commission emphasizes that risk modification and supportive intervention remain relevant across the life course, including after cognitive symptoms appear (Livingston et al., 2024).

Assessment and Individualized Baselines

A structured pathway begins with a credible diagnosis and baseline. History should document the onset, rate, and pattern of cognitive change; its effect on activities of daily living; behavioral symptoms; safety incidents; and caregiver observations. Diagnostic frameworks require evidence of decline from previous ability and interference with independent function rather than reliance on a screening score alone (McKhann et al., 2011). Sudden or fluctuating change suggests delirium or another acute cause and requires urgent evaluation.

The Montreal Cognitive Assessment (MoCA) can support baseline and serial assessment, particularly when mild cognitive impairment is suspected (Nasreddine et al., 2005). Interpretation must consider education, literacy, language, culture, hearing, vision, fatigue, anxiety, and testing conditions. Protocols should use the same validated instrument at defined intervals and record why testing was postponed or modified.



Cognitive data should be paired with functional assessment, medication history, mood, sleep, pain, mobility, falls, continence, nutrition, hearing, vision, and caregiver strain. Laboratory tests or imaging should follow clinical indications and local diagnostic guidance. The care plan then translates findings into a small set of measurable goals, such as following a morning routine with visual cues or completing a familiar household task with less assistance. Review should occur at scheduled intervals and after hospitalization, medication change, a fall, new behavioral symptoms, or caregiver concern.

Cognitive Stimulation and Functional Rehabilitation

Cognitive stimulation therapy (CST) uses themed activities and guided discussion to engage several cognitive domains in a socially supportive setting. The updated Cochrane review found that cognitive stimulation probably produces small cognitive benefits in mild-to-moderate dementia and may also help communication and quality of life (Woods et al., 2023). A protocol should define facilitator training, frequency, group size, progression, and adaptation for language or sensory needs. Activities should be meaningful and appropriately challenging rather than repetitive school-like exercises.

Goal-oriented cognitive rehabilitation focuses on everyday performance. The person, caregiver, and clinician identify activities that matter, analyze where difficulties occur, and apply compensatory methods. These may include written steps, alarms, labels, consistent object placement, simplified choices, environmental cues, and practice in the actual setting. The GREAT trial found improved attainment of individual goals in people with early-stage Alzheimer disease or related dementias, even though broad secondary outcomes did not show corresponding change (Clare et al., 2019). Protocols that measure only global cognition can therefore miss functional benefit.

Social participation should be built into both approaches. Conversation, music, hobbies, spiritual practices, household roles, and intergenerational contact can prompt recall and communication while protecting identity. The aim is sustained engagement, not constant testing. Activities should stop or change when they produce fatigue, shame, frustration, or distress.

Physical Sensory and Vascular Care

Brain health is closely linked to cardiovascular and metabolic health. Dementia protocols should include review of blood pressure, diabetes, lipid disorders, smoking, harmful alcohol use, weight, and previous stroke. The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) showed that a multidomain program combining diet, exercise, cognitive training, and vascular-risk monitoring improved or maintained cognition in older adults at increased risk of cognitive decline (Ngandu et al., 2015). This prevention evidence cannot be transferred uncritically to advanced dementia, but it supports coordinated rather than single-component care.

Physical activity helps mobility, balance, sleep, mood, and cardiovascular function. In established mild-to-moderate dementia, however, the Dementia and Physical Activity trial found that moderate-to-high intensity exercise improved fitness without improving cognition (Lamb et al., 2018). Protocols should prescribe safe, individualized movement for broad health and functional benefits rather than promise cognitive recovery. Frailty, pain, falls, and cardiac status should guide intensity.



Sensory care reduces the cognitive effort required to understand the environment. Hearing aids, glasses, good lighting, reduced background noise, and face-to-face communication can improve participation. In the ACHIEVE trial, a hearing intervention did not reduce three-year cognitive decline in the total cohort, although a prespecified analysis suggested possible benefit in participants at higher baseline risk (Lin et al., 2023). This qualified result supports routine hearing care while avoiding exaggerated claims that hearing aids prevent dementia.

Medication and Symptom Management

Medication review is a central preservation strategy because sedative and anticholinergic effects can worsen attention, memory, mobility, and falls. Each drug should have a current indication, dose, therapeutic target, monitoring plan, and review date. Clinicians should consider cumulative anticholinergic burden, benzodiazepines, sedating antihistamines, opioids, antipsychotics, and drug interactions. Cholinesterase inhibitors or memantine may provide symptomatic benefit for appropriate diagnoses and stages, but treatment response varies and adverse effects require monitoring. National guidance recommends diagnosis-specific prescribing and regular review rather than automatic continuation (National Institute for Health and Care Excellence [NICE], 2018).

Behavioral and psychological symptoms of dementia (BPSD) often express pain, fear, boredom, sleep disruption, overstimulation, or an unmet need. The DICE framework asks clinicians to Describe the behavior, Investigate causes, Create a person-centred response, and Evaluate the result (Kales et al., 2014). Protocols should require assessment of pain, infection, constipation, urinary retention, hunger, environmental triggers, and communication before sedating medication is considered.

Sleep and nutrition also affect daytime cognition. Regular activity, daylight exposure, treatment of sleep apnea when indicated, calm evening routines, hydration, and adequate protein and energy intake can reduce reversible impairment. Restrictive diets or supplements should not replace assessment of actual deficiency and medical need.

Delirium Prevention and Care Transitions

Delirium is an acute, fluctuating disturbance of attention and cognition. Older adults with dementia are particularly vulnerable during hospitalization because unfamiliar environments, immobility, dehydration, infection, sleep loss, pain, catheters, and psychoactive medicines accumulate quickly. Delirium may persist after discharge and is associated with worse functional and cognitive outcomes. Preventing it is therefore one of the most direct ways to preserve cognition.

The Hospital Elder Life Program (HELP) organizes orientation, cognitive engagement, early mobility, sleep support, hydration, nutrition, and access to hearing and visual aids. A systematic review and meta-analysis reported lower delirium incidence and fewer falls with HELP-based care (Hsieh et al., 2018). A tailored, family-involved version also reduced postoperative delirium and limited cognitive and physical decline after noncardiac surgery (Wang et al., 2020).

Protocols should require staff to treat sudden confusion as a clinical change rather than inevitable dementia progression. Delirium screening, medication reconciliation, pain assessment, vital signs, oxygenation, hydration, bowel and bladder review, and infection evaluation should follow promptly.



During transfer, the receiving team needs the person's cognitive baseline, communication needs, usual routines, current medicines, recent delirium status, and caregiver contact information.

Person Centred Nursing and Caregiver Support

Nurses observe cognition in real tasks across the day. They can identify changes in attention, eating, mobility, sleep, continence, communication, and behavior before a formal score changes. A useful protocol gives nurses clear thresholds for escalation and supports precise documentation of what occurred, when it began, and which conditions preceded it.

Person-centred training helps staff interpret behavior and preserve autonomy. In the WHELD cluster randomized trial, staff education in person-centred care, social interaction, and medication review improved quality of life, agitation, neuropsychiatric symptoms, and positive care interactions in nursing homes, although it did not improve global deterioration (Ballard et al., 2018). This distinction matters: a protocol can improve lived experience and participation even when the neurodegenerative process continues.

Caregivers need practical instruction in cueing, communication, safety, meaningful activity, and responses to distress. Their observations strengthen assessment because they know the person's previous ability and daily pattern. Protocols should also screen caregiver burden, sleep, mood, and capacity to continue care. Education without respite, follow-up, or access to professional support can shift responsibility without improving outcomes.

Evaluation and Implementation

A protocol should specify both process measures and outcomes. Process measures include completion of cognitive and functional assessment, documented goals, medication review, sensory screening, delirium prevention, caregiver education, and timely follow-up. Outcomes should include cognition, basic and instrumental activities of daily living, goal attainment, delirium, falls, BPSD, quality of life, caregiver burden, hospitalization, and adverse drug events.

The evaluation design must account for disease stage, comorbidity, acute illness, attrition, and repeated-test effects. A comparison group strengthens causal interpretation, while longer follow-up shows whether gains persist. Maintenance of function can be meaningful, but researchers should avoid describing stability as improvement unless the analysis supports that claim.

Implementation determines whether evidence reaches patients. Staff require training, competency assessment, supervision, protected time, and access to referral services. Protocols also need a responsible coordinator and a mechanism for communication between home, community services, hospitals, memory clinics, and long-term care. Audit data should be returned to teams so missed steps can be corrected. Cultural adaptation should preserve the intervention's active components while changing examples, language, family roles, and delivery methods to suit the population.

Conclusion

Structured dementia care protocols can preserve cognitive and functional ability by coordinating interventions that are often delivered separately. Their core elements are accurate baseline assessment,

cognitive stimulation, individualized rehabilitation, vascular and sensory care, medication review, safe physical activity, delirium prevention, person-centred nursing, and caregiver support. Evidence supports modest cognitive benefit from CST, functional goal improvement from rehabilitation, and better behavioral and quality-of-life outcomes from person-centred care. Multidomain prevention and hearing trials show that benefits depend on the population and should not be overstated.

Success should be judged by whether the person retains meaningful abilities, avoids preventable deterioration, and receives consistent support across settings. A well-implemented protocol cannot cure dementia, but it can protect remaining capacity, reduce harmful complications, and sustain participation and dignity throughout the course of illness.

References

- Ballard, C., Corbett, A., Orrell, M., Williams, G., Moniz-Cook, E., Romeo, R., Woods, B., Garrod, L., Testad, I., Woodward-Carlton, B., Wenborn, J., Knapp, M., & Fossey, J. (2018). Impact of person-centred care training and person-centred activities on quality of life, agitation, and antipsychotic use in people with dementia living in nursing homes: A cluster-randomised controlled trial. *PLOS Medicine*, 15(2), e1002500. <https://doi.org/10.1371/journal.pmed.1002500>
- Clare, L., Kudlicka, A., Oyebode, J. R., Jones, R. W., Bayer, A., Leroi, I., Kopelman, M., James, I. A., Culverwell, A., Pool, J., Brand, A., Henderson, C., Hoare, Z., Knapp, M., Morgan-Trimmer, S., Burns, A., Corbett, A., Whitaker, R., & Woods, B. (2019). Goal-oriented cognitive rehabilitation for early-stage Alzheimer's and related dementias: The GREAT RCT. *Health Technology Assessment*, 23(10), 1–242. <https://doi.org/10.3310/hta23100>
- Fazio, S., Pace, D., Flinner, J., & Kallmyer, B. (2018). The fundamentals of person-centered care for individuals with dementia. *The Gerontologist*, 58(Suppl. 1), S10–S19. <https://doi.org/10.1093/geront/gnx122>
- Hshieh, T. T., Yang, T., Gartaganis, S. L., Yue, J., & Inouye, S. K. (2018). Hospital Elder Life Program: Systematic review and meta-analysis of effectiveness. *The American Journal of Geriatric Psychiatry*, 26(10), 1015–1033. <https://doi.org/10.1016/j.jagp.2018.06.007>
- Kales, H. C., Gitlin, L. N., & Lyketsos, C. G. (2014). Management of neuropsychiatric symptoms of dementia in clinical settings: Recommendations from a multidisciplinary expert panel. *Journal of the American Geriatrics Society*, 62(4), 762–769. <https://doi.org/10.1111/jgs.12730>
- Lamb, S. E., Sheehan, B., Atherton, N., Nichols, V., Collins, H., Mistry, D., Dosanjh, S., Slowther, A. M., Khan, I., & Petrou, S. (2018). Dementia and physical activity trial of moderate to high intensity exercise training for people with dementia: Randomised controlled trial. *BMJ*, 361, k1675. <https://doi.org/10.1136/bmj.k1675>
- Lin, F. R., Pike, J. R., Albert, M. S., Arnold, M., Burgard, S., Chisolm, T., Couper, D., Deal, J. A., Goman, A. M., Glynn, N. W., Gmelin, T., Gravens-Mueller, L., Hayden, K. M., Huang, A. R., Knopman, D., Mitchell, C. M., Mosley, T., Pankow, J. S., Reed, N. S., . . . Coresh, J. (2023). Hearing intervention versus health education control to reduce cognitive decline in older adults with hearing loss in the USA: The ACHIEVE multicentre randomised controlled trial. *The Lancet*, 402(10404), 786–797. [https://doi.org/10.1016/S0140-6736\(23\)01406-X](https://doi.org/10.1016/S0140-6736(23)01406-X)
- Livingston, G., Huntley, J., Liu, K. Y., Costafreda, S. G., Selbæk, G., Alladi, S., Ames, D., Banerjee, S., Burns, A., Brayne, C., Fox, N. C., Ferri, C. P., Gitlin, L. N., Howard, R., Kales, H. C., Kivimäki, M., Larson, E. B., Nakasujja, N., Rockwood, K., . . . Mukadam, N. (2024). Dementia prevention, intervention, and care: 2024 report of the Lancet standing Commission. *The Lancet*, 404(10452), 572–628. [https://doi.org/10.1016/S0140-6736\(24\)01296-0](https://doi.org/10.1016/S0140-6736(24)01296-0)
- McKhann, G. M., Knopman, D. S., Chertkow, H., Hyman, B. T., Jack, C. R., Jr., Kawas, C. H., Klunk, W. E., Koroshetz, W. J., Manly, J. J., Mayeux, R., Mohs, R. C., Morris, J. C., Rossor, M. N., Scheltens, P., Carrillo, M. C., Thies, B., Weintraub, S., & Phelps, C. H. (2011). The diagnosis of dementia due to Alzheimer's disease: Recommendations from the National Institute on Aging-Alzheimer's Association workgroups. *Alzheimer's & Dementia*, 7(3), 263–269. <https://doi.org/10.1016/j.jalz.2011.03.005>
- Nasreddine, Z. S., Phillips, N. A., Bédirian, V., Charbonneau, S., Whitehead, V., Collin, I., Cummings, J. L., & Chertkow, H. (2005). The Montreal Cognitive Assessment, MoCA: A brief screening tool for mild cognitive impairment. *Journal of the American Geriatrics Society*, 53(4), 695–699. <https://doi.org/10.1111/j.1532-5415.2005.53221.x>
- National Institute for Health and Care Excellence. (2018). Dementia: Assessment, management and support for people living with dementia and their carers (NICE Guideline NG97; updated January 2025). <https://www.nice.org.uk/guidance/ng97>
- Ngandu, T., Lehtisalo, J., Solomon, A., Levälähti, E., Ahtiluoto, S., Antikainen, R., Bäckman, L., Hänninen, T., Jula, A., Laatikainen, T., Lindström, J., Mangialasche, F., Pajananen, T., Pajala, S., Peltonen, M., Rauramaa, R., Stigsdotter-Neely, A., Strandberg, T., Tuomilehto, J., . . . Kivipelto, M. (2015). A 2 year multidomain intervention of diet, exercise, cognitive training, and vascular risk monitoring versus control to prevent cognitive decline in at-risk elderly people: A randomised controlled trial. *The Lancet*, 385(9984), 2255–2263. [https://doi.org/10.1016/S0140-6736\(15\)60461-5](https://doi.org/10.1016/S0140-6736(15)60461-5)
- Wang, Y., Yue, J., Xie, D., Carter, P., Li, Q., Gartaganis, S. L., Chen, J., & Inouye, S. K. (2020). Effect of the tailored, family-involved Hospital Elder Life Program on postoperative delirium and function in older adults: A randomized clinical trial. *JAMA Internal Medicine*, 180(1), 17–25. <https://doi.org/10.1001/jamainternmed.2019.4446>
- Woods, B., Rai, H. K., Elliott, E., Aguirre, E., Orrell, M., & Spector, A. (2023). Cognitive stimulation to improve cognitive functioning in people with dementia. *Cochrane Database of Systematic Reviews*, 2023(1), CD005562. <https://doi.org/10.1002/14651858.CD005562.pub3>
- World Health Organization. (2026). Risk reduction of cognitive decline and dementia: WHO guidelines (2nd ed.). <https://www.who.int/publications/i/item/9789240123557>