How Nurses and Physiotherapists Assist Patients with Dementia and Alzheimer's Disease

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Abstract

Dementia and Alzheimer's disease are progressive neurodegenerative conditions that affect memory, cognitive function, and physical abilities, significantly impacting the quality of life of patients. Nurses and physiotherapists play a critical role in managing these conditions by providing personalized care, rehabilitation strategies, and therapeutic interventions to improve patients' physical and cognitive well-being. Nurses focus on medication management, behavioral support, and daily care, while physiotherapists implement exercise programs, mobility training, and fall prevention strategies to maintain physical function and independence for as long as possible. This article explores the collaborative roles of nurses and physiotherapists in the holistic care of patients with dementia and Alzheimer's

disease, highlighting effective strategies, challenges, and best practices in improving patient outcomes.

Keywords: Dementia care, Alzheimer's disease, nursing interventions, physiotherapy, cognitive impairment, fall prevention, multidisciplinary approach, elderly care, rehabilitation.

Introduction

Dementia, including Alzheimer's disease, is a leading cause of disability among older adults, affecting millions worldwide. It is characterized by **progressive memory loss, impaired reasoning, communication difficulties, and physical decline**, leading to a loss of independence. As the disease advances, patients require increasing levels of **medical, physical, and psychological support** to ensure their safety and well-being.

A multidisciplinary approach is crucial in dementia care, with nurses and physiotherapists playing vital roles. Nurses provide daily care, medication administration, patient monitoring, and emotional support, while physiotherapists focus on maintaining mobility, preventing falls, and enhancing motor function to reduce complications associated with reduced physical activity.

This article discusses how nurses and physiotherapists collaborate to **enhance quality of life**, **promote independence**, **and ensure safety** for patients with dementia and Alzheimer's disease. Understanding their distinct yet complementary roles is essential for optimizing care and improving patient well-being.

Role of Nurses in Dementia and Alzheimer's Care

Nurses play an essential role in caring for patients with dementia and Alzheimer's disease, providing medical, emotional, and daily living support. Their responsibilities range from administering medications and managing symptoms to offering behavioral interventions, fall prevention, and caregiver education. As dementia is a progressive condition, nurses adapt care plans based on the patient's stage of cognitive decline to ensure safety, dignity, and comfort throughout the disease trajectory.

This article elaborates on the **critical functions of nurses** in managing dementia and Alzheimer's disease, emphasizing their **holistic approach to improving patient well-being**.

1. Medication Management and Symptom Control

Patients with dementia often require medications to manage cognitive decline, behavioral symptoms, and co-existing health conditions. Nurses play a key role in:

• Administering cognitive-enhancing drugs (e.g., Donepezil, Rivastigmine, Memantine) to slow disease progression.

- Managing behavioral symptoms such as agitation, aggression, anxiety, and depression through both pharmacological and non-pharmacological approaches.
- Monitoring for **side effects and drug interactions**, especially as patients may have multiple prescriptions.
- Ensuring patients take medications on time, as memory loss can lead to missed doses or overdoses.
- Collaborating with physicians to **adjust medication regimens** based on symptom progression.

2. Cognitive and Emotional Support

Nurses use **therapeutic communication techniques** to support dementia patients emotionally and reduce stress:

- Validation Therapy: Acknowledging the patient's feelings instead of correcting misconceptions, reducing distress and agitation.
- **Reminiscence Therapy:** Encouraging patients to recall past experiences to stimulate memory and provide a sense of identity.
- Music and Art Therapy: Using creative activities to enhance cognitive engagement and emotional well-being.
- **Reality Orientation:** Gently reinforcing facts about time, place, and identity to help patients stay connected to reality.

These approaches help patients maintain self-esteem, reduce confusion, and improve their overall quality of life.

3. Assistance with Daily Living Activities (ADLs)

As dementia progresses, patients **lose the ability to perform basic self-care activities**. Nurses assist with:

- Eating and Nutrition: Encouraging balanced meals, managing swallowing difficulties, and preventing weight loss.
- **Bathing and Hygiene:** Helping with personal hygiene while maintaining the patient's dignity.
- **Dressing and Grooming:** Choosing **comfortable, easy-to-wear clothing** to simplify dressing.
- Toileting and Incontinence Care: Implementing scheduled toileting routines to prevent accidents.

Providing **structured routines** helps patients feel secure and reduces frustration related to memory loss.

4. Fall Prevention and Safety Management

Dementia increases the risk of falls due to **impaired balance**, **poor judgment**, **and confusion**. Nurses implement safety measures, such as:

- Identifying and removing fall hazards (e.g., loose rugs, clutter, inadequate lighting).
- Encouraging the use of **mobility aids** like walkers and handrails.
- Implementing **bed and chair alarms** for patients prone to wandering.
- Educating caregivers on **safe transfer techniques** to prevent injuries.

By proactively managing risks, nurses help prevent fractures, head injuries, and hospitalizations.

5. Managing Behavioral and Psychological Symptoms

Dementia can cause **mood swings, aggression, paranoia, and hallucinations**, requiring specialized nursing interventions:

- **De-escalation Techniques:** Speaking calmly, redirecting attention, and using reassurance.
- Reducing Environmental Triggers: Creating a quiet, familiar setting to minimize confusion.
- Engaging in Therapeutic Activities: Providing sensory stimulation (e.g., aromatherapy, pet therapy) to soothe agitation.
- Supporting Social Interaction: Encouraging family visits and group activities to prevent isolation.

These approaches help manage challenging behaviors without excessive reliance on medication.

6. Monitoring and Managing Sleep Disturbances

Patients with dementia often experience sleep disturbances, including insomnia and sundowning (evening confusion and agitation). Nurses help by:

- Establishing **consistent sleep routines** with fixed bedtimes and wake-up times.
- Encouraging daytime physical activity to reduce nighttime restlessness.
- Minimizing caffeine and screen exposure before bedtime.

• Using **calming techniques** like soft music, dim lighting, and relaxation exercises.

By addressing sleep issues, nurses improve both the patient's rest and caregiver well-being.

7. Family and Caregiver Education and Support

Caring for a dementia patient can be overwhelming for families. Nurses provide essential caregiver education, including:

- Training on dementia progression: Helping families understand stages of decline and what to expect.
- Teaching communication strategies: Showing caregivers how to speak clearly and respond to confusion calmly.
- Providing coping techniques: Offering stress management tips to reduce caregiver burnout.
- Guiding on legal and ethical issues: Educating families about advanced directives, power of attorney, and end-of-life decisions.

By supporting families, nurses improve home care quality and reduce caregiver stress.

8. Advanced and Palliative Care in Late-Stage Dementia

In the final stages of dementia, patients lose the ability to **speak**, **eat**, **or move independently**. Nurses focus on:

- Pain management using palliative medications and comfort measures.
- Assisted feeding techniques or recommending palliative nutrition options.
- Emotional and spiritual support for both patients and families.
- Dignified end-of-life care, ensuring compassion, comfort, and respect.

Providing holistic palliative care ensures that patients experience peace and dignity in their final days.

Challenges in Nursing Care for Dementia Patients

Despite their critical role, nurses face several challenges when caring for dementia patients:

- 1. Patient Resistance: Patients may refuse care due to confusion or paranoia.
- 2. **Emotional Strain:** Managing aggression and behavioral symptoms can be stressful.
- 3. Caregiver Fatigue: Family caregivers often struggle with burnout.

- 4. Resource Limitations: Some facilities lack specialized dementia units or trained staff.
- 5. Ethical Dilemmas: Making decisions about restraints, feeding tubes, and end-of-life care can be complex.

Conclusion

Nurses are the backbone of dementia and Alzheimer's care, providing medical management, emotional support, safety interventions, and caregiver education. Their ability to navigate cognitive decline, behavioral challenges, and physical care needs ensures that dementia patients receive compassionate, person-centered support. Despite challenges, their expertise in medication administration, ADL assistance, fall prevention, and palliative care plays a vital role in enhancing the quality of life for patients and their families. By employing evidence-based strategies and interdisciplinary collaboration, nurses help dementia patients live with dignity, comfort, and safety throughout their journey.

Role of Physiotherapists in Dementia and Alzheimer's Care

Dementia, including Alzheimer's disease, is a progressive neurological disorder that affects memory, cognitive function, and motor skills, making daily activities increasingly difficult. While nurses and caregivers provide medical and emotional support, physiotherapists (PTs) play a crucial role in helping dementia patients maintain physical function, mobility, and overall independence. By focusing on movement, strength, balance, and coordination, physiotherapists help reduce falls, improve quality of life, and promote overall well-being for dementia patients.

This article explores the **critical role of physiotherapists in dementia and Alzheimer's care**, detailing their **therapeutic interventions**, **challenges**, **and impact on patient outcomes**.

1. Mobility and Functional Independence Training

As dementia progresses, patients **gradually lose mobility**, which can lead to **muscle weakness**, **joint stiffness**, **and reduced independence**. Physiotherapists help maintain **functional movement** through:

- Gait training: Improving walking ability, coordination, and endurance.
- **Muscle strengthening exercises:** Enhancing lower limb strength to prevent muscle atrophy.
- Range-of-motion exercises: Preventing stiffness and maintaining joint flexibility.
- **Task-specific training:** Practicing everyday movements like getting in and out of bed, sitting down, and walking short distances.

By focusing on **mobility retention**, physiotherapists help **delay physical decline** and enable patients to perform daily activities **for as long as possible**.

2. Fall Prevention and Balance Training

Dementia significantly increases the risk of falls and fractures due to poor coordination, confusion, and muscle weakness. Physiotherapists use preventive strategies to enhance balance and reduce fall risks, including:

- Balance exercises (e.g., standing on one leg, heel-to-toe walking) to improve stability.
- Strength training for the lower body to support walking and standing.
- **Dual-task training**, where patients perform a **cognitive task while moving**, improving **brain-body coordination**.
- Gait assessment to identify unsafe walking patterns and correct them.
- Environmental safety recommendations, such as grab bars, non-slip flooring, and appropriate footwear.

By implementing structured fall prevention programs, physiotherapists help dementia patients move safely and confidently.

3. Managing Physical Pain and Stiffness

Many dementia patients suffer from **chronic pain, arthritis, and joint stiffness**, which can lead to **reduced movement and discomfort**. Physiotherapists help manage pain through:

- Passive and active stretching to relieve muscle tension.
- Manual therapy techniques like massage and joint mobilization.
- Hydrotherapy (water-based exercises) for gentle movement in a pain-free environment.
- **Heat and cold therapy** to reduce inflammation and muscle tightness.

Effective pain management improves comfort, mobility, and overall quality of life.

4. Encouraging Physical Activity and Exercise

Regular physical activity is crucial for maintaining muscle strength, preventing depression, and improving cardiovascular health. Physiotherapists design personalized exercise programs based on the patient's cognitive and physical abilities. Common exercises include:

- Walking programs to enhance endurance and cardiovascular health.
- Chair-based exercises for patients with limited mobility.

- Tai Chi and yoga for balance and relaxation.
- Dancing or rhythmic exercises to engage cognitive and motor functions simultaneously.
- Gardening, stretching, or light aerobics to promote overall well-being.

Regular movement helps prevent complications like muscle wasting, bedsores, and respiratory infections.

5. Improving Coordination and Motor Control

Dementia affects fine and gross motor skills, making simple tasks like grasping objects, buttoning shirts, or holding utensils difficult. Physiotherapists use:

- Hand-eye coordination exercises, such as catching and throwing balls.
- Fine motor skill training, using therapy putty or finger dexterity exercises.
- Sensory-motor training, integrating visual and tactile cues to stimulate movement.

These interventions help patients retain independence in daily tasks for as long as possible.

6. Supporting Cognitive Engagement through Movement

Physical activity has been shown to **stimulate brain function** and **slow cognitive decline** in dementia patients. Physiotherapists incorporate:

- **Dual-task exercises**, where patients combine cognitive and physical activities (e.g., counting steps while walking).
- **Music-assisted movement**, where patients perform exercises to familiar songs to boost engagement.
- **Motor-cognitive exercises**, like obstacle courses, to enhance problem-solving and memory.

Engaging the brain through movement helps maintain cognitive function and delay memory loss.

7. Breathing and Postural Exercises for Late-Stage Dementia

In advanced stages of dementia, patients may experience breathing difficulties, poor posture, and muscle rigidity. Physiotherapists provide:

- Chest physiotherapy to prevent lung infections and improve oxygenation.
- **Postural correction** to prevent slouching and maintain proper spinal alignment.

• **Bed exercises** for patients who are bedridden to avoid complications like bedsores and contractures.

These interventions improve comfort, reduce complications, and enhance quality of life.

8. Caregiver Training and Family Education

Caring for a dementia patient can be overwhelming for families and caregivers. Physiotherapists **educate and train caregivers** to:

- Assist with mobility and transfers to prevent injuries.
- Encourage safe and guided physical activity at home.
- Use assistive devices like walkers, canes, and wheelchairs appropriately.
- Identify signs of physical discomfort or deterioration to seek timely intervention.

By empowering caregivers, physiotherapists enhance home-based dementia care and ensure the patient's safety and well-being.

Challenges in Physiotherapy for Dementia Patients

Despite its benefits, physiotherapy for dementia patients comes with challenges:

- 1. Patient Resistance: Some patients may refuse exercises due to confusion or fear.
- 2. **Cognitive Decline:** Memory loss can make it difficult for patients to follow therapy routines.
- 3. **Behavioral Changes:** Agitation or aggression may interfere with therapy sessions.
- 4. Limited Communication: Patients in later stages struggle to express pain or discomfort.
- 5. **Progressive Nature of Dementia:** Physical decline is inevitable, requiring continuous therapy adjustments.

Physiotherapists must adapt interventions, using gentle encouragement, creative engagement, and family support to ensure patient participation.

Conclusion

Physiotherapists play a vital role in dementia and Alzheimer's care, focusing on mobility preservation, fall prevention, pain management, and functional independence. By implementing personalized exercise programs, balance training, and cognitive-motor activities, physiotherapists help enhance physical well-being and delay functional decline. Despite challenges, their therapeutic interventions significantly improve the quality of life for dementia patients, allowing them to maintain independence for as long as possible.

By working collaboratively with nurses, caregivers, and families, physiotherapists ensure that dementia patients receive comprehensive, compassionate, and effective care that prioritizes their safety, dignity, and well-being.

Challenges in Dementia and Alzheimer's Care

Caring for individuals with dementia and Alzheimer's disease presents significant challenges for healthcare providers, caregivers, and families. As the disease progresses, patients experience cognitive decline, behavioral changes, physical deterioration, and emotional distress, making daily care increasingly complex. Addressing these challenges requires a multidisciplinary approach, involving medical, psychological, and social support.

This article explores the **key challenges** in dementia and Alzheimer's care, focusing on medical, emotional, social, and logistical difficulties faced by caregivers and healthcare professionals.

1. Cognitive Decline and Memory Loss

One of the **most defining and difficult aspects** of dementia is **progressive memory loss**. Patients struggle with:

- Forgetting names, faces, and important events.
- Losing the ability to recognize family members or caregivers.
- Repeating questions or stories due to short-term memory loss.
- Forgetting how to perform basic tasks (e.g., dressing, eating).

As memory deteriorates, patients require constant supervision, increasing caregiver stress.

Challenges:

- Caregivers must constantly **remind and reorient patients**, which can be exhausting.
- Patients may experience **frustration**, **confusion**, **or distress** when they don't recognize familiar people or places.
- Safety risks increase as patients forget appointments, medications, or even how to operate household appliances.

2. Behavioral and Psychological Symptoms

Dementia leads to **significant behavioral and mood changes**, including:

- Agitation and aggression (verbal or physical outbursts).
- Paranoia and delusions (e.g., believing caregivers are stealing from them).

- Hallucinations (seeing or hearing things that aren't there).
- Wandering and getting lost, even in familiar environments.
- Sundowning syndrome, where symptoms worsen in the evening.

Challenges:

- Managing aggressive behaviors without excessive medication is difficult.
- Patients may become distrustful of caregivers, making cooperation harder.
- Wandering increases the risk of falls, injuries, and getting lost.
- Behavioral symptoms cause emotional distress for both patients and caregivers.

3. Communication Difficulties

As dementia progresses, patients lose their ability to express thoughts, understand language, and process information. This results in:

- **Difficulty finding words** or forming coherent sentences.
- **Repetitive speech** or using the wrong words.
- **Inability to follow conversations** or respond appropriately.
- Frustration and withdrawal due to communication struggles.

Challenges:

- Caregivers must learn to **interpret non-verbal cues** to understand needs.
- Miscommunication can lead to frustration, agitation, and distress.
- Patients may be unable to express pain or discomfort, leading to undiagnosed health issues.

4. Physical Health Decline and Mobility Issues

Dementia is not just a cognitive disorder—it also affects **physical abilities**. Patients experience:

- Muscle weakness and poor coordination, leading to frequent falls.
- **Difficulty swallowing (dysphagia)**, increasing the risk of choking or malnutrition.
- Incontinence, requiring bladder and bowel management.
- Sleep disturbances, leading to fatigue and disorientation.

Challenges:

- Increased risk of falls and fractures requires constant monitoring.
- Feeding difficulties make maintaining proper nutrition challenging.
- Caregivers must assist with **toileting and hygiene**, which can be **time-consuming and distressing** for both parties.
- Sleep problems affect both the patient's and caregiver's rest, leading to exhaustion.

5. Caregiver Stress and Burnout

Family members and professional caregivers often experience severe physical, emotional, and mental exhaustion due to the demands of dementia care.

Common caregiver challenges include:

- Emotional strain from witnessing a loved one's decline.
- Physical exhaustion from assisting with daily activities.
- Financial burden due to long-term care expenses.
- **Social isolation**, as caregivers have little time for personal relationships.
- Guilt and grief, feeling overwhelmed by the responsibility of care.

Challenges:

- Caregivers need **respite care** and emotional support to prevent burnout.
- Many caregivers struggle to balance work, family, and caregiving responsibilities.
- Lack of support systems can lead to depression and anxiety.

6. Medication Management

Dementia patients often take multiple medications to manage **cognitive symptoms**, **anxiety**, **depression**, **and co-existing conditions** (e.g., hypertension, diabetes).

Challenges:

- Patients **forget to take medications**, leading to worsening symptoms.
- **Drug interactions** and **side effects** (e.g., drowsiness, confusion).
- Overmedication risks, especially with sedatives and antipsychotics.
- **Difficulty swallowing pills**, requiring liquid or alternative medication forms.

Healthcare providers must frequently review medications to ensure they are safe and effective for dementia patients.

7. Ethical and Legal Issues

As dementia progresses, patients lose the ability to make informed decisions about their care, finances, and legal matters.

Challenges:

- Deciding when to transition to long-term care facilities.
- Addressing advance directives and end-of-life wishes.
- Handling financial decisions and power of attorney.
- Managing family disagreements over care decisions.

Early legal planning and discussions about care preferences can help reduce conflicts.

8. Limited Access to Specialized Dementia Care

Many communities lack **specialized dementia facilities**, leaving families struggling to find appropriate care.

Challenges:

- Limited availability of memory care units and trained professionals.
- High cost of specialized dementia care.
- Long waiting lists for assisted living or nursing homes.
- **Geographic barriers**, with rural areas having fewer dementia care resources.

Expanding awareness, funding, and training programs can help address these accessibility issues.

9. Stigma and Lack of Public Awareness

Despite growing awareness, dementia remains highly stigmatized, leading to:

- Delayed diagnosis because families dismiss symptoms as "normal aging."
- Social isolation, as people withdraw from friends and activities.
- Misconceptions about dementia, such as believing patients "aren't aware" of their condition.

Public education and dementia-friendly initiatives can help reduce stigma and promote compassionate care.

10. End-of-Life Care and Palliative Support

In the final stages of dementia, patients experience:

- Severe cognitive decline (non-verbal, unresponsive).
- Inability to eat or drink, leading to malnutrition.
- Total loss of mobility, requiring bedridden care.
- Increased infections (e.g., pneumonia, UTIs), often leading to hospitalization.

Challenges:

- Deciding when to transition to palliative or hospice care.
- Managing pain and distress without overmedicating.
- Providing **emotional support for families** during the final stages.

Palliative care teams ensure dignified, compassionate end-of-life care for dementia patients.

Conclusion

Caring for individuals with dementia and Alzheimer's disease is physically, emotionally, and mentally demanding. Challenges include cognitive decline, behavioral symptoms, mobility issues, caregiver stress, medication management, and end-of-life decisions. Addressing these requires a multidisciplinary approach, including nurses, physiotherapists, doctors, caregivers, and family members.

By increasing awareness, improving access to specialized care, and providing caregiver support, healthcare systems can help enhance the quality of life for both patients and their families.

Collaborative Strategies for Better Patient Outcomes

To maximize patient care, nurses and physiotherapists must collaborate effectively through:

a) Regular Communication and Care Coordination

- Conduct joint assessments to create a personalized care plan.
- Hold interdisciplinary meetings to discuss patient progress and challenges.
- Use electronic health records (EHRs) for seamless information sharing.

b) Family and Caregiver Education

• Provide training on safe mobility techniques, exercise routines, and fall prevention.

- Offer guidance on handling **behavioral symptoms** and maintaining patient engagement.
- Encourage family members to participate in exercise and therapy sessions.

c) Implementing Structured Daily Routines

- Develop a **consistent daily schedule** to reduce confusion and agitation.
- Incorporate exercise sessions into daily routines to prevent physical decline.
- Modify the home environment to enhance both safety and independence.

d) Early Intervention and Preventive Care

- Identify early mobility issues and implement strategies to prevent further decline.
- Monitor for signs of depression or withdrawal and address them proactively.
- Encourage social and physical activities to slow cognitive and motor decline.

Conclusion

A collaborative approach between nurses and physiotherapists is essential for providing comprehensive care to patients with dementia and Alzheimer's disease. Nurses focus on medical management, emotional support, safety, and daily living assistance, while physiotherapists work on mobility, strength, balance, and functional independence. Through regular communication, coordinated care plans, and family education, these professionals can improve patient outcomes, reduce complications, and enhance the quality of life for individuals with dementia.

By integrating their expertise, nurses and physiotherapists help patients maintain independence for as long as possible, prevent falls, manage pain, and slow cognitive and physical decline. This interdisciplinary approach not only benefits the patients but also supports caregivers in managing the challenges of dementia care. As research continues to evolve, further collaboration and innovative interventions will continue to enhance patient-centered care and improve long-term outcomes.

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