Management of the Neuropsychiatric Symptoms of Dementia

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Learning Objectives

By the end of this presentation, participants will be able to:

- **Recognize** the spectrum and prevalence of neuropsychiatric symptoms in dementia and their impact on patient outcomes.
- **Identify** appropriate strategies for assessing agitation, aggression, psychosis, depression, apathy, and sleep disturbances in patients with dementia.
- **Apply** nonpharmacologic and pharmacologic interventions tailored to specific neuropsychiatric symptoms.
- **Evaluate** the risks and benefits of psychotropic medications in the management of severe or refractory symptoms.
- **Understand** the complexities in diagnosing and managing comorbid depression and other behavioral challenges in dementia.

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Introduction to Dementia

- **Dementia** is best characterized as a syndrome rather than one particular disease
- Defined as any decline in cognition significant enough to interfere with independent, daily functioning
- Various causes: **neurologic**, **neuropsychiatric**, or **medical** conditions

- More than 55 million cases globally and 7th leading cause of death globally
- **1.3 trillion** dollar global cost in 2019
- **Women** are disproportionately affected, both directly and indirectly
  a. Higher disability-adjusted life years
  b. Higher mortality
  c. Provide 70% of care hours for dementia patients

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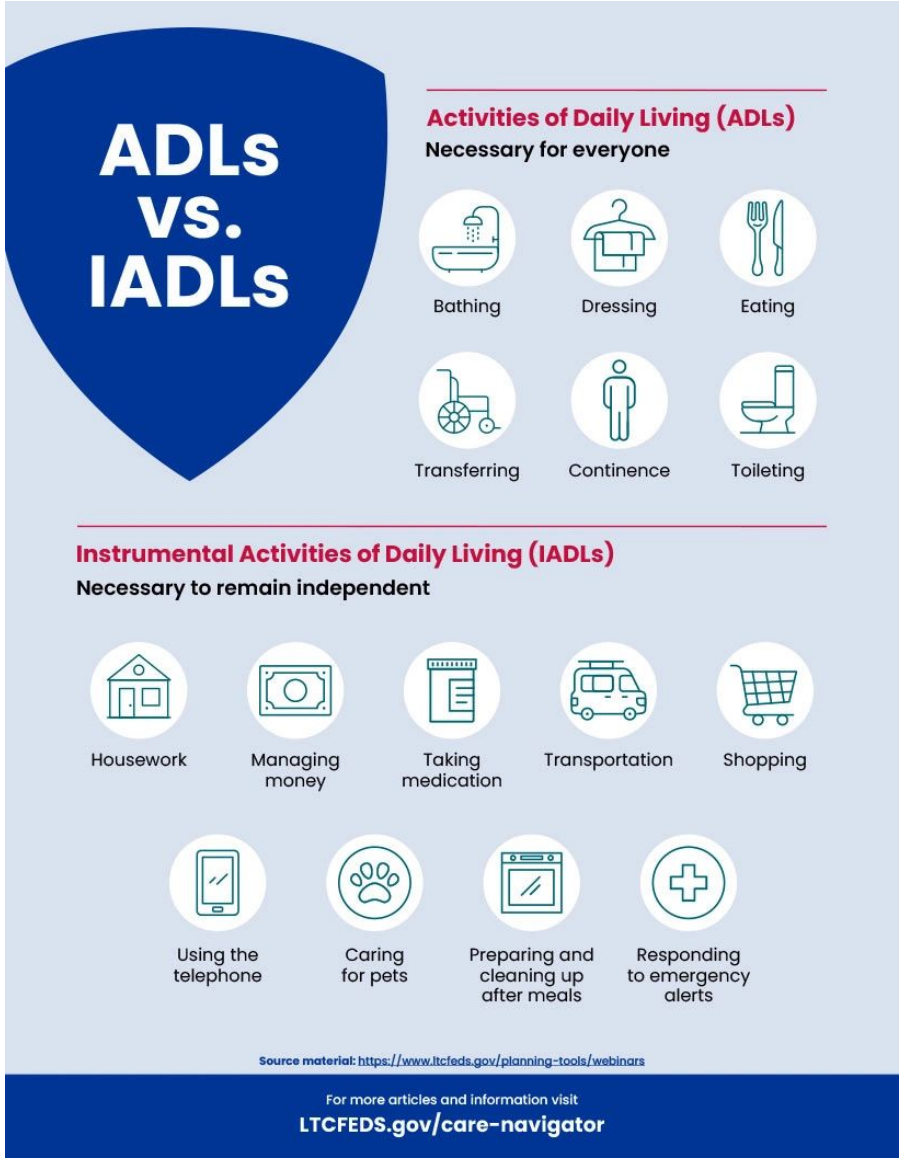
What is Dementia?

- Dementia is a **syndrome**, not a single disease.
- Defined as a **decline in cognition** significant enough to interfere with **independent daily functioning**.
- Common cognitive domains affected:
  - Memory, attention, language, executive functioning, visual-spatial skills.
- Functional loss often measured by:
  - **ADLs** (Activities of Daily Living): bathing, dressing, eating, toileting, transferring, continence.
  - **iADLs** (Instrumental ADLs): cooking, cleaning, shopping, managing medications/finances, using the phone.
    - **DSM-5** classification:
      - **Mild dementia** = iADL difficulties
      - **Moderate dementia** = ADL impairment
      - **Severe dementia** = fully dependent



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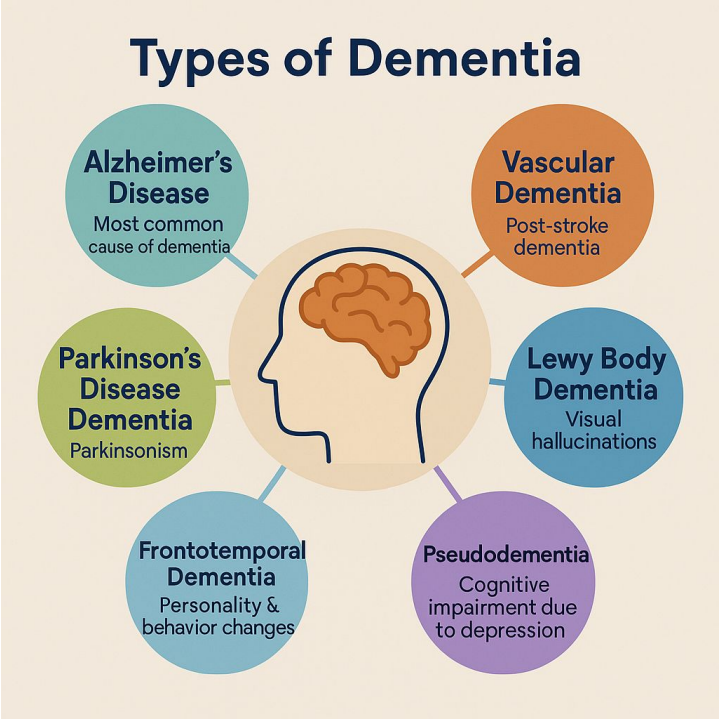
Most Common Causes of Dementia

1. **Alzheimer's Disease**
   - Most common cause of dementia.
   - Symptoms: Early memory loss, followed by a progressive decline in cognition and function.
   - Pathophysiology: Accumulation of amyloid plaques and neurofibrillary tangles in the brain.
2. **Vascular Dementia**
   - Typically results from multiple small strokes or chronic ischemia.
   - Symptoms: Stepwise cognitive decline, often with motor symptoms.
   - Risk Factors: Hypertension, diabetes, smoking.
3. **Lewy Body Dementia**
   - Symptoms: Fluctuating cognition, visual hallucinations, REM sleep behavior disorder, parkinsonism.
   - Diagnostic Note: If cognitive and motor symptoms occur <1 year apart, it's classified as Lewy Body Dementia.
4. **Parkinson's Disease Dementia**
   - Cognitive symptoms emerge after established Parkinson's disease.
   - Less frequent hallucinations compared to Lewy Body Dementia.
5. **Frontotemporal Dementia (FTD)**
   - Affects personality, behavior, and language.
   - Types: Includes Pick's disease, characterized by early personality changes and impaired language.
   - Often diagnosed in younger individuals.
6. **Pseudodementia**
   - Cognitive impairment due to depression rather than a neurodegenerative disease.
   - Often reversible with treatment of underlying depression.
   - Warning signs: Affects memory and concentration, but mood disturbance is usually prominent.

Less Common Causes of Dementia

- Huntington's Disease
- Creutzfeldt-Jakob Disease (rapid, fatal)
- Leukoencephalopathies
- Multiple-System Atrophy
- Advanced MS or ALS
- Late-stage Syphilis
- Severe head trauma



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Signs and Symptoms of Dementia

Alzheimer's	Frontotemporal	Symptoms	Lewy Body	Vascular
Mild • Wandering and getting lost • Repeating questions **Moderate** • Problems recognizing friends and family • Impulsive behavior **Severe** • Cannot communicate	**Behavioral and Emotional** • Difficulty planning and organizing • Impulsive behaviors • Emotional flatness or excessive emotions **Movement Problems** • Shaky hands • Problems with balance and walking **Language Problems** • Difficulty making or understanding speech *There are several types of frontotemporal disorders, and symptoms can vary by type.*	**Cognitive Decline** • Inability to concentrate, pay attention, or stay alert • Disorganized or illogical ideas **Movement Problems** • Muscle rigidity • Loss of coordination • Reduced facial expression **Sleep Disorders** • Insomnia • Excessive daytime sleepiness **Visual Hallucinations**	• Forgetting current or past events • Misplacing items • Trouble following instructions or learning new information • Hallucinations or delusions • Poor judgment
Typical Age of Diagnosis				
Mid 60s and above, with some cases in mid-30s to 60s	Between 45 and 64	50 or older	Over 65	

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Neuropsychiatric Symptoms in Dementia

Symptoms include:

- Agitation/aggression
- Irritability/mood lability
- Anxiety
- Delusions
- Paranoia
- Depressive symptoms
- Disinhibition
- Euphoria
- Hallucinations
- Loss of appetite
- Sleep disturbances
- Stereotyped behaviors (e.g., pacing, wandering, rummaging, picking)

- Neuropsychiatric symptoms in Alzheimer's disease (AD) and other forms of dementia are **extremely common**.
- Observed in **60 to 90% of patients with dementia**, prevalence increases with disease severity.
- Presence of neuropsychiatric symptoms leads to greater functional impairment and **accelerates nursing home placement**.

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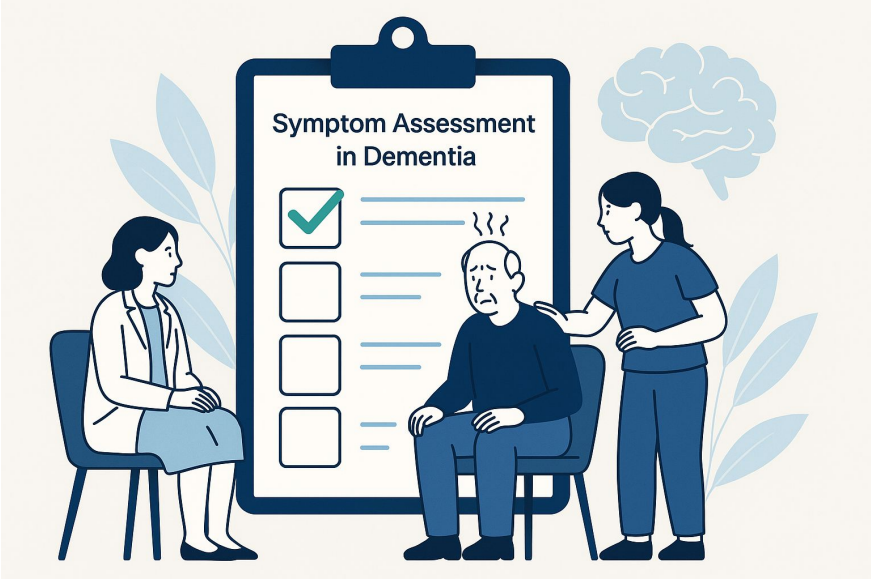
Symptom Assessment in Dementia

- **Neuropsychiatric symptoms** (agitation, aggression, delusions, hallucinations, paranoia, wandering, depression, apathy, and disinhibition) are **common** in dementia but may be **under-reported**
- **Screening** for these symptoms should be done at regular follow-up visits with explicit questions asked to both caregivers and patients
- The presence of **delusions** or **hallucinations** is associated with increased risk for cognitive and functional decline and predicts institutionalization and death
    - **Delusions** are common in Alzheimer's disease patients, with 30% of severe AD patients having them and 70% of mild to moderate AD patients having them at some point during follow-up
    - **Hallucinations** are less frequent than delusions and present in 7% of baseline severe AD patients and 33% at some point during follow-up
    - **Visual hallucinations** early in the course of a dementia illness suggests dementia with **Lewy bodies** and requires specific management
- **Sundowning** (behavioral disturbances peaking in the late afternoon or evening) affects up to two-thirds of dementia patients and is related to disturbed circadian rhythms and poor light exposure and sleep
- **Paranoid** delusions can be distressing to the patient or caregiver and include beliefs such as house invasion, misplacement of personal objects, and unfaithful spouses



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Agitation or Aggression in Patients with Dementia

Evaluation for Underlying Cause:

- Infection or medication toxicity
- Pain, fear, confusion, poor sleep
- Assessment of safety and evaluation for underlying cause of altered mental status

Medication Side Effects:

- Anticholinergic side effects of drugs
- Benzodiazepines and other hypnotics/sedatives

Pain Assessment:

- Interview and observation
- Pain Assessment in Advanced Dementia (PAINAD)

Delirium:

- Acute confusional state
- Medical illnesses, substance intoxication, medication side effects
- Consideration of concomitant medical illness

Depression:

- Agitation or aggression may be manifestation of depression
- Antidepressant medication as diagnostic strategy

Sleep Disorders:

- Common in patients with dementia
- Evaluation essential to appropriate treatment

Misperception or Misunderstanding:

- Poor vision or poor hearing contribute to social isolation
- Cognitive, language, or memory deficits can give rise to agitation/aggression

Delusions:

- Emerge in dementia for many reasons
- Suspicious nature
- Misunderstanding of others' behaviors

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Agitation in Dementia: Initial Management Strategies (1 of 2)

- **Proactive approach** with early recognition and treatment of mild symptoms
- **Nonpharmacologic measures**
  - Distraction and redirection
  - Structured routines
  - Reassuring responses
  - Activities
  - Music therapy
  - Sensory interventions
  - Communication skills training for caregivers
- **Behavioral interventions**
  - Identifying preceding events
  - Anticipating and alleviating unmet needs
  - Avoiding environmental triggers
- **Assessment of risk** of harm and caregiver distress

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Agitation in Dementia: Initial Management Strategies (2 of 2)

- **Pain** is a significant source of behavioral disturbances in patients with dementia.
  - Pain assessment can be challenging and depends on caregiver report and observation.
- Use a stepped-care approach to analgesic prescribing and **start low, go slowly**.
- Monitor the patient carefully to **balance risks and benefits** of pain treatment vs. persistent pain.
- **Cholinesterase inhibitors** may have small benefits for neuropsychiatric symptoms and mild to moderate dementia.
  - e.g., Donepezil (Aricept), Rivastigmine (Exelon), and Galantamine (Razadyne).
- **Selective Serotonin Reuptake Inhibitors (SSRI)** can be helpful for agitation and paranoia in AD, but efficacy is limited.
  - e.g., Citalopram (Celexa), Sertraline (Zoloft)
- Consider **ongoing assessment** of benefits vs. harms and periodically re-evaluate use.

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Severe or Refractory Symptoms

- Severe symptoms (aggression, agitation, psychosis) require **ongoing collaboration** among healthcare providers, patients, and caregivers
- Nonpharmacologic interventions **should always be tried first**
- When necessary, acute pharmacological therapy with **antipsychotics** (below) may be initiated with **informed patients and families**, while continually assessing **benefits vs. harms**
    - Antipsychotic medications are considered **off-label** for dementia-related psychosis (not FDA approved)
    - **Black box warning**: increased mortality in elderly dementia patients
    - Lowest effective dose for the shortest duration possible
    - Reserve for severe, debilitating, or safety-threatening symptoms
    - Selection depends on symptom profile, comorbidities, and side effect risk
    - No clear differences in efficacy among drugs
- When medications are needed (and risks are accepted):
    - **Risperidone** – most evidence for efficacy; stroke risk ↑
    - **Aripiprazole** (Abilify) – some evidence, better tolerated
    - **Olanzapine** – metabolic side effects
    - **Quetiapine** – weakest evidence; preferred in Parkinsonism

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Depression in Dementia

- **Diagnosis** of depression in patients with impaired cognition can be **complicated**
- Patients with depression can produce symptoms of cognitive impairment, which is sometimes referred to as **"pseudodementia"**
    - Likewise, patients with dementia may develop symptoms that suggest depression, but are due to cognitive deficits
- **Vascular dementia** (multiple lacunar infarctions) can cause difficulties in diagnosis
- Antidepressant medication is the preferred treatment option, with **SSRIs** being the preferred choice
    - Selection of a specific SSRI is based on **side effect profile**, **drug interactions**, and **cost**
    - Clinical trials of SSRIs for depression in patients with dementia have had **mixed results**, with some studies showing benefit and others not
- **Psychotherapy** may be a useful but underutilized treatment option for patients with mild to moderate dementia
- Tricyclic antidepressants can cause worsening confusion and are not as well **tolerated** as SSRIs

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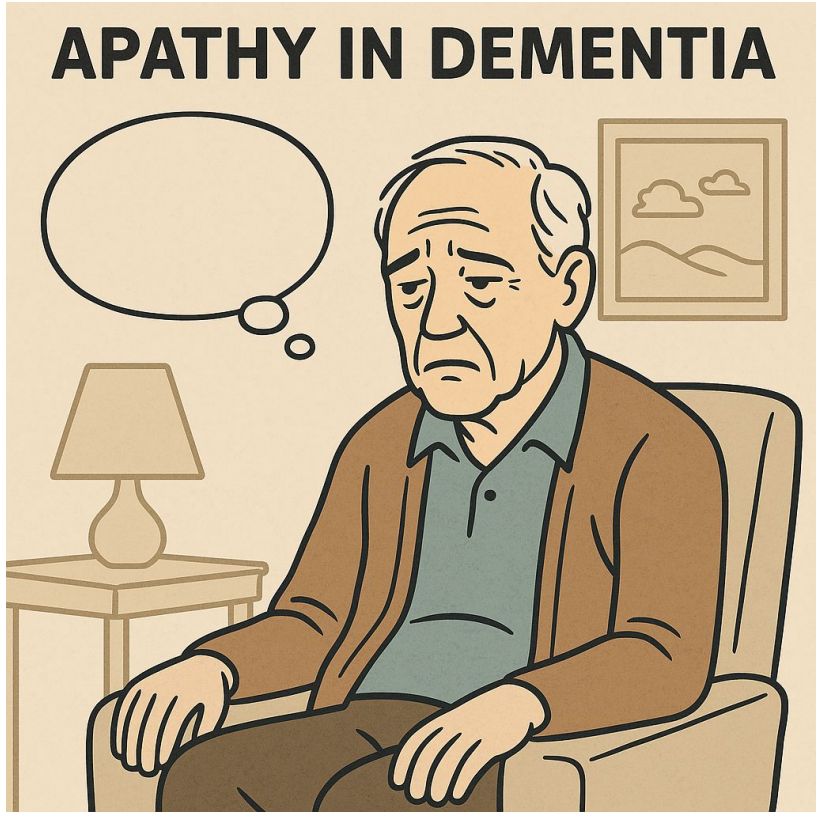
Apathy in Dementia

- **Apathy** is a state characterized by a lack of **motivation**, **interest**, or **emotional** expression. It involves indifference toward activities, relationships, or challenges and can manifest as reduced goal-directed activity or engagement in daily life
- Common symptom of dementia
- Can occur with or without depression
- Management is challenging
- Non-pharmacologic strategies are not well studied
- Some medications can help with the symptoms of apathy
- There is mixed data about the benefit of **cholinesterase inhibitors** such as **donepezil** and **rivastigmine**
- In some cases, **antidepressants** or **methylphenidate** (stimulant) can have an impact on the degree of apathy



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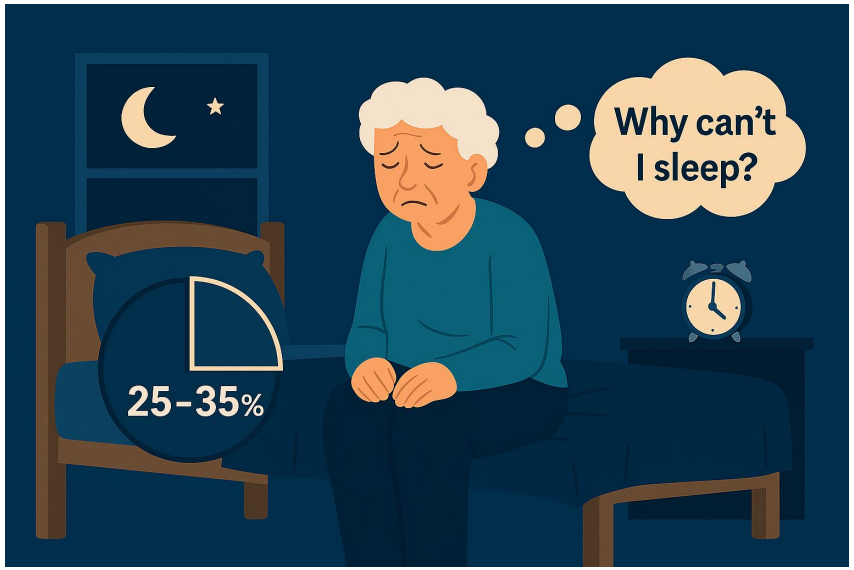
Sleep Disorders in Dementia

- Sleep disturbances are common in patients with Alzheimer's disease, affecting **25-35%** of patients.
- **Causes:**
  - Multifactorial, including depression, anxiety, decrease in daytime physical activity, nocturia, and side effects of medications.
- **Treatment:** Nonpharmacologic strategies are preferred, including good sleep hygiene practices and activity/exercise programs.
- Certain sleep disorders, such as **restless leg syndrome** and **rapid eye movement sleep behavior disorder**, occur with increased prevalence in patients with certain types of dementia.



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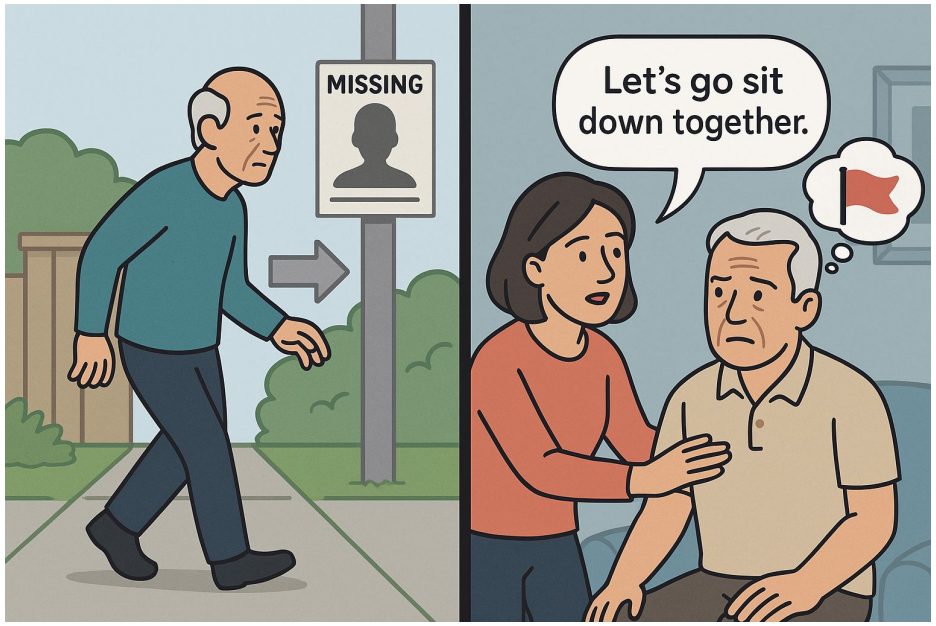
Wandering and Sexually Inappropriate Behavior in Dementia

Wandering:

- Distractibility and restlessness may lead to wandering
- A concern for families and caregivers, leading to nursing home placement

Sexually Inappropriate Behavior:

- 15-25% of dementia patients exhibit such behavior
- May include explicit sex talk and sex acts
- Other behavioral symptoms (agitation, aggression, depression) often present
- Treatment is empiric, starting with behavioral interventions and potentially moving to medication trials
- Antidepressants may be the first drug of choice



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Caregiver Burden

- High rates of **burden** and **psychological morbidity**
- Caregiver population comprised mostly of spouses, children, and children-in-law, majority female
- In the US, 60%+ of **unpaid caregivers** are wives, daughters, daughters-in-law, granddaughters, and other female relatives
- Physical demands lead to cardiovascular problems, lower immunity, slower wound healing, etc.
- Lack of time for self-care
- Social isolation
- Financial burden
- Dependent on caregiver variables such as **personality**, **perception of caregiving role**, and **coping strategies**

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Caregiver Support

- Support can come in the form:
  - **instrumental support** (helping with daily living needs and housework)
  - **emotional support**
  - **informational support** (information and knowledge from both health professionals and from those who have experienced similar situations)
- Support provides a **buffer** against burden and stress for caregivers by increasing the perception that resources are available to handle stress
- **Unwelcome support** may be more stressful than helpful
- Factors associated with more successful interventions are the extent to which they are tailored to the needs of the individual and address issues to do with subjective burden

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Resources in Riverside

For individuals with dementia and their families near Riverside, resources include:

Organizations and Support Groups:

- Alzheimer's Association (California Southland Chapter): Offers support, advocacy, and research funding, with a 24/7 Helpline at 800-272-3900.
- Visiting Angels Riverside County: Specializes in dementia care, providing in-home care services.
- Riverside County Office on Aging (RCAGING): Administers programs and services for older adults, adults with disabilities, family caregivers, and residents in long-term care facilities.
- Inland Caregiver Resource Center: Helps families and communities cope with the challenges of aging and caregiving.
- Network of Care (NoC): A comprehensive, internet-based resource for the elderly, people with disabilities, their caregivers, and service providers.
- Alzheimer's Family Support Group, Riverside (Pacifica Senior Living): Meets on the 3rd Saturday of each month at 10am, open to the public.
- Caregiver Resource Centers: Offer respite care, short-term counseling, and other support services.
- Well Spouse Association: Provides peer support to those caring for a chronically ill or disabled spouse/partner.

Medical and Specialized Care:

- Memory Care Program at Riverside Health: Offers comprehensive evaluation and treatment for conditions affecting cognition and memory.
- Chapman Comprehensive Health Center: Provides rehabilitation and hospice services.

Other Resources:

- Riverside County Senior Resource Guide: Provides information on various services for seniors, including those with dementia.
- Aging and Disability Resource Connection (ADRC): Offers information and referrals for older adults and people with disabilities.
- Multipurpose Senior Services Program (MSSP): Provides a range of services to eligible seniors.
- Long-Term Care Ombudsman: Advocates for the rights and well-being of residents in long-term care facilities.
- Medicare Counseling (HICAP): Provides free, non-biased counseling on Medicare.
- Senior Employment Training (SCSEP): Helps older adults find employment.
- Legal Services: Provides legal assistance to seniors.

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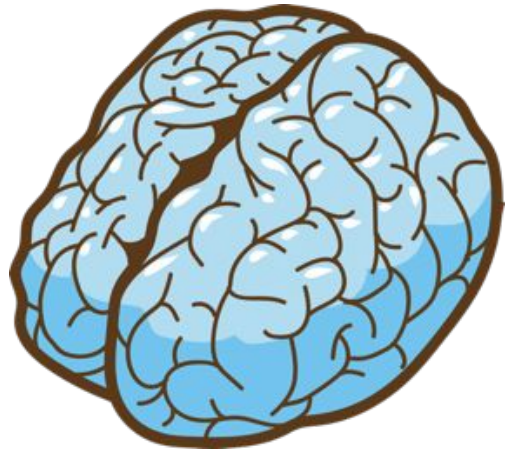

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