



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

WORKING WITH OLDER ADULTS WITH COGNITIVE CONCERNS

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MEDICINE



SPEAKER DISCLOSURES

- ✓ No conflicts of interest

PLANNER DISCLOSURES

The following series planners have no relevant conflicts of interest to disclose; other disclosures have been mitigated.

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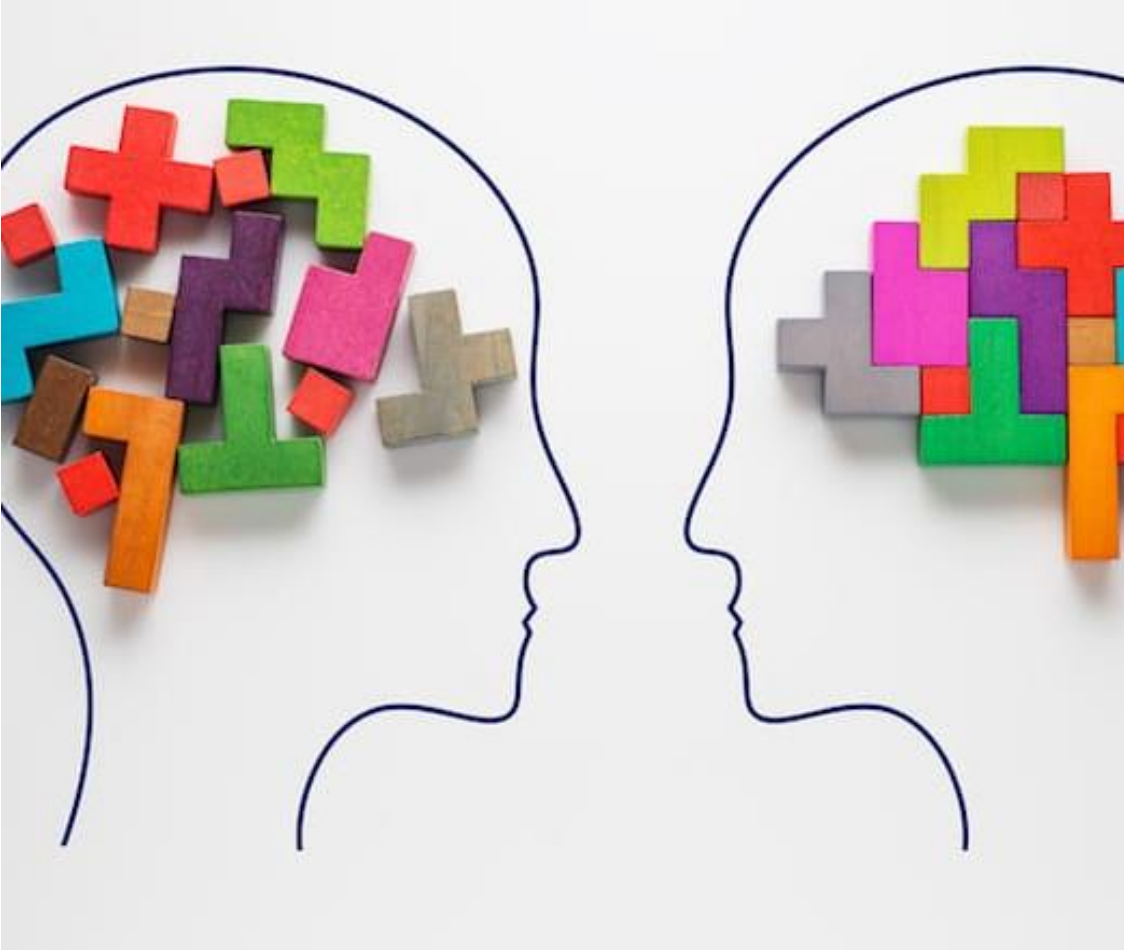
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OBJECTIVES



1. Explain the difference between typical cognitive aging versus dementia.
2. Summarize approaches to promote healthy cognitive aging.
3. Identify common caregiving and behavioral challenges associated with cognitive concerns.
4. Recommend psychoeducation and support resources for families and caregivers.

**ACCORDING TO THE UNITED NATIONS (UN), BY 2050, 1
IN 6 PERSONS WILL BE 65+ YEARS OF AGE.**



(United Nations Department of Economic and Social Affairs. World population ageing 2019.)

WHAT IS “SUCCESSFUL AGING”?

Low probability of disease

- Subjective well-being (low level of perceived stress)

High cognitive and physical function

- Flourishing (meaning of life, close social relationships)

Active engagement with life

- Post-traumatic growth
- Sustained remission or recovery for individuals with severe mental illness with functional independence

COGNITIVE CHANGES IN AGING - FLUID INTELLIGENCE



- **Processing Speed**

- Speed of cognitive activities as well as motor responses
- ↓ with age

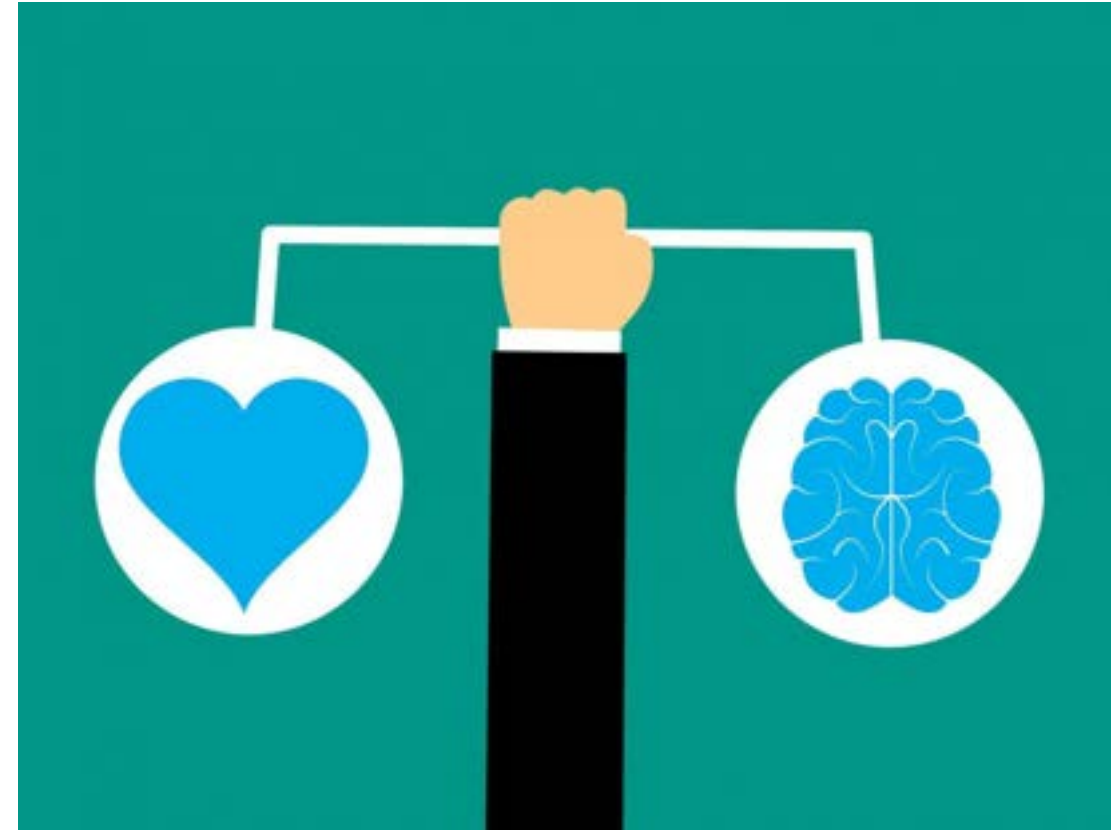
- **Attention**

- “Ability to concentrate and focus on specific stimuli” (p. 3)
- Immediate memory, selective attention, divided attention, working memory
 - Immediate memory stays relatively constant with age
 - Complex attention task abilities ↓ with age

6

WHAT CONTRIBUTES TO OR EXACERBATES COGNITIVE AGING?

- Genetic predisposition
- Traumatic brain injury
- Adverse environmental childhood experiences
- Poor educational and cognitive enrichment experiences
- Chronic health conditions (e.g., diabetes, vascular conditions, chronic lung and liver conditions, COPD, vision and hearing loss, sleep disorders)
- Mental illness (e.g., major depression, bipolar disorder, schizophrenia, substance use, anxiety disorders)



DON'T FORGET NEUROPLASTICITY!

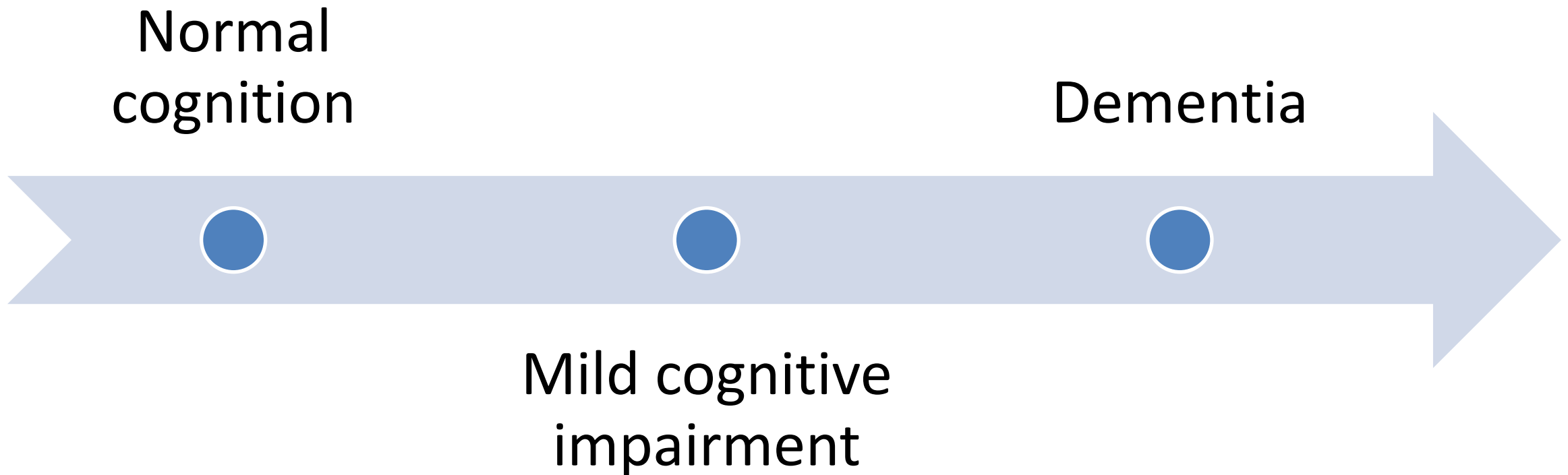


Physical, Cognitive,
Social activities

The diagram illustrates the process of neuroplasticity. On the left, a stylized neuron with a central cell body and branching dendrites is shown. Surrounding the neuron are several blue circles of varying sizes, representing different types of activities. A large, light blue double arrow points from the neuron towards a large blue circle on the right. This circle contains text describing the outcomes of these activities: 'New synapses, dendrites, blood vessels, and neurons!'.

New
synapses,
dendrites,
blood vessels,
and neurons!

COGNITIVE IMPAIRMENT ON A CONTINUUM



10 WARNING SIGNS OF DEMENTIA

Memory loss that disrupts daily life.

Challenges in planning or solving problems.

Difficulty completing tasks at home, at work or at leisure.

Confusion with time or place.

Trouble understanding visual images and spatial relationships.

New problems with words in speaking or in writing.

Misplacing things and losing the ability to retrace steps.

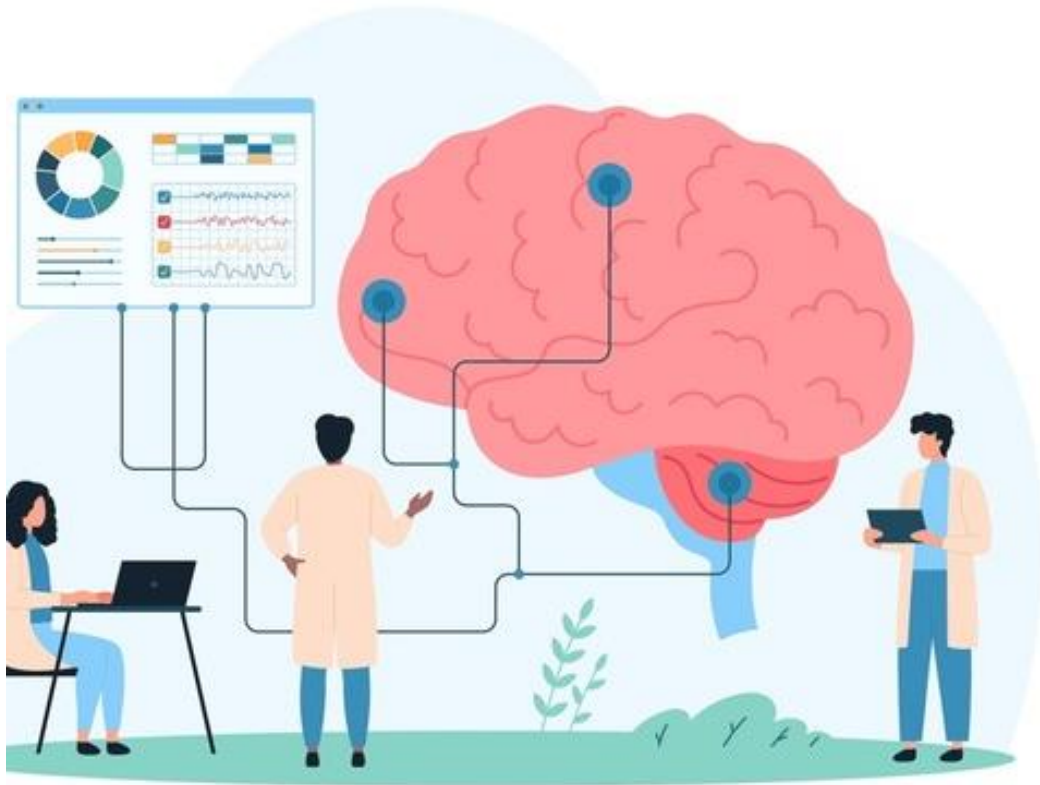
Decreased or poor judgment.

Withdrawal from work or social activities.

Changes in mood or personality.

DEMENTIA IN THE CLINIC: YES YOU CAN!

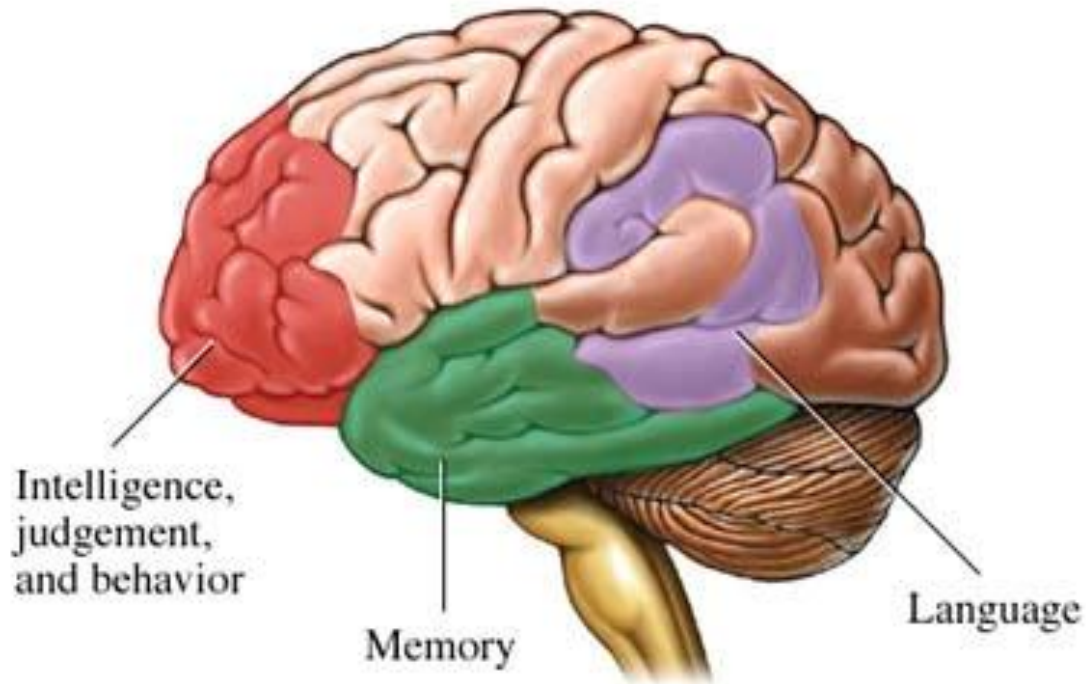
- Make the diagnosis
- Provide education, support, and treatment options
- Ensure that treatment of other medical conditions is appropriate
- Provide primary palliative care
- Assist with advance care planning



JUST ANOTHER DAY IN PRIMARY CARE...

- You are meeting with an 80yo F patient and her daughter. The patient was recently diagnosed with dementia. Her daughter starts the visit by saying, "I know my mom is getting more forgetful, but she can still remember so many things – like detailed information about past travel and she can tell me all about her childhood and young adulthood. I think she's just not trying hard enough to remember recent things. I keep telling her she needs to try harder. And I don't think she has dementia. It's not like she has Alzheimer's."
- The patient's recent MoCA was 19/30, she is needing help remembering to take her medications, and is getting lost while driving.

DIAGNOSIS IN THE OFFICE



- History of decline
 - Functional assessment
 - Cognitive testing
 - Ruling out other etiologies
 - Biomarkers?
-
- *Diagnosis is often delayed or not given.*

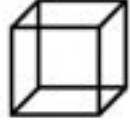
COGNITIVE TESTING

- Office testing
 - Mini-cog
 - GP-COG
 - MoCA (www.mocatest.org)
 - SLUMS
 - [RUDAS](#)
 - [Score sheet](#)
- Informant Questionnaires
 - [Informant Questionnaire of Cognitive Decline in the Elderly \(IQCODE\)](#)
 - IADLs
- Neuropsychological testing

MONTREAL COGNITIVE ASSESSMENT (MOCA)

NAME : _____ Education : _____ Date of birth : _____
 Sex : _____ DATE : _____

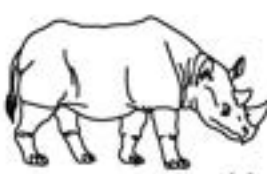
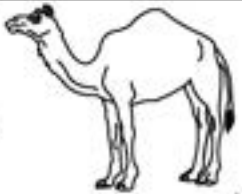
VISUOSPATIAL / EXECUTIVE

Copy cube  []

Draw CLOCK (Ten past eleven) (3 points) []

Points: [] / 5

NAMING

 []  []  []

Points: [] / 3

MEMORY

Read list of words, subject must repeat them. Do 3 trials. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial	[]	[]	[]	[]	[]
2nd trial	[]	[]	[]	[]	[]

No points

ATTENTION

Read list of digits (5 digit/ sec.). Subject has to repeat them in the forward order [] 2 1 8 5 4
 Subject has to repeat them in the backward order [] 7 4 3

Read list of letters. The subject must tap with his hand at each letter A. No points if 2 or even
 [] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B

Serial 7 subtraction starting at 100 [] 93 [] 86 [] 79 [] 72 [] 65
 4 or 3 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt

Points: [] / 3

LANGUAGE

Repeat : I only know that John is the one to help today. []
 The cat always hid under the couch when dogs were in the room. []

Fluency / Name maximum number of words in one minute that begin with the letter F [] _____ (N 2 11 words)

Points: [] / 2

ABSTRACTION

Similarity between e.g. banana - orange = fruit [] train - bicycle [] watch - ruler

Points: [] / 2

DELAYED RECALL

	FACE	VELVET	CHURCH	DAISY	RED
Has to recall words WITH NO CUE	[]	[]	[]	[]	[]
Optional Category cue	[]	[]	[]	[]	[]
Optional Multiple choice cue	[]	[]	[]	[]	[]

Points for UNRECALLED recall only

Points: [] / 5

ORIENTATION

[] Date [] Month [] Year [] Day [] Place [] City

Points: [] / 6

© Z.Mosreddine MD Version 7.0 www.mocatest.org Normal > 28 / 30

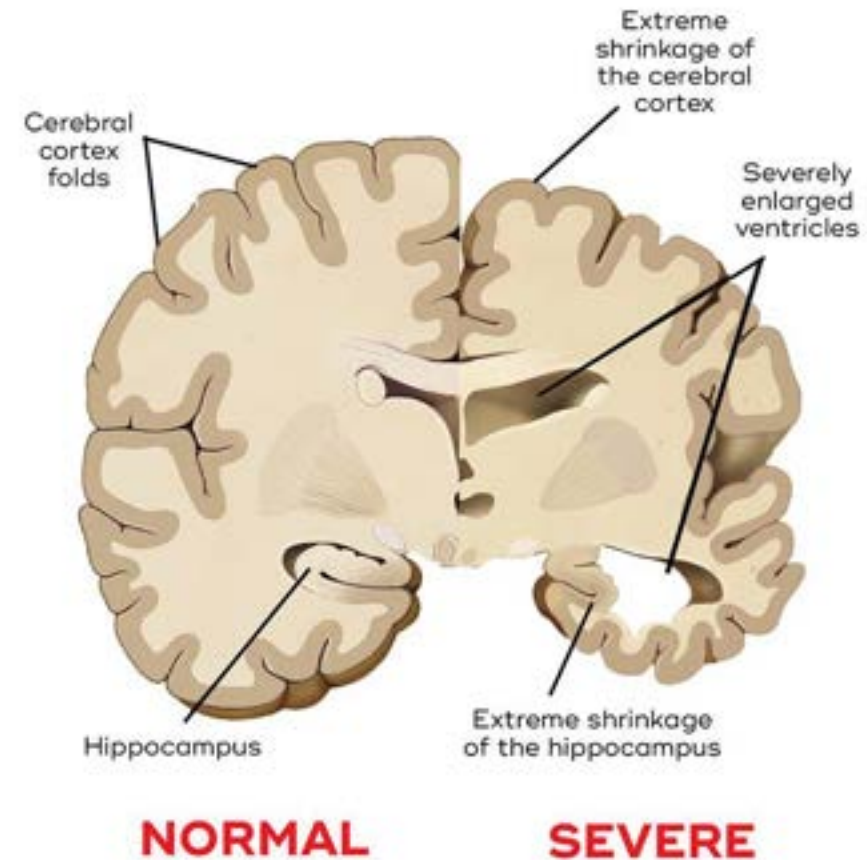
Administered by: _____

TOTAL [] / 30

Add 1 point if < 5 12 yr edu

DEMENTIA IS A PROGRESSIVE, DEGENERATIVE, TERMINAL NEUROLOGIC DISEASE.

- In the early stages, memory is impaired.
- Eventually, the entire nervous system is affected, and the patient loses the ability to speak, walk, control the bladder and bowels, and swallow food.
- Ultimately, dementia is a fatal illness.

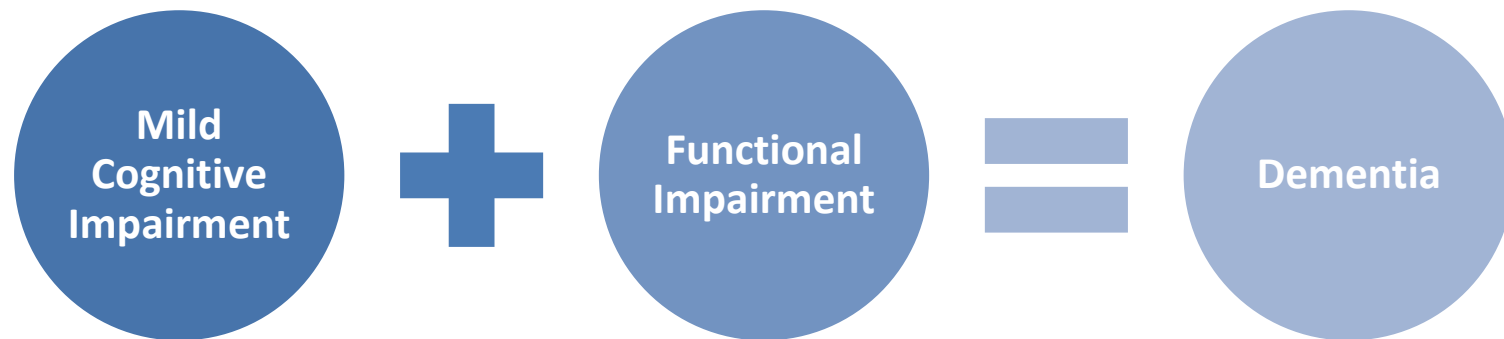


MILD COGNITIVE IMPAIRMENT AND DEMENTIA

Mild Cognitive Impairment (MCI) “is a slight but measurable decline in cognitive abilities that includes memory and thinking”

Functional Impairment - changes in ability to navigate day to day life independently (e.g., taking medication, managing finances, cleaning, meal prep, laundry)

“Dementia is a general term referring to a loss of cognitive function—remembering, thinking, and reasoning—*severe enough to interfere with everyday life.*”



TYPES OF DEMENTIA

Dementia is an umbrella term for loss of memory and other thinking abilities severe enough to interfere with daily life.

- Alzheimer's
- Vascular
- Lewy body
- Frontotemporal
- Other, including Huntington's
- * **Mixed dementia:** Dementia from more than one cause

SAFETY CONCERNS



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- Driving
- Medication Management
- Financial decisions
- Wandering
- Cooking
- Supervision at home
- Susceptibility to fraud

COMMON BEHAVIOR CHALLENGES BY STAGE

(STAR-VA, p. 16)

Changes in Social and Task Behaviors by Dementia Stage

	Social Behaviors	Task Behaviors
Early Dementia	• Initiates and responds to social greetings and interactions • Carries on a conversation without much prompting • Seeks out unfamiliar activities when comfortable but familiar activities when distressed • Can use verbal and visual cues • Can select among options	• May lack initiation of a task • Relies on routines • Can easily choose among options • May discontinue challenging tasks • Can perform ADLS • Has difficulty with some IADLs
Middle Dementia	• Can initiate social greetings • Can respond to social Greetings • Has very short conversational exchanges • Can make simple choices	• Can start or repeat task with cueing • Relies more on visual cues • Responds to brief verbal cues • Easily forgets the task at hand • May forget activities already complete
Advanced Dementia	• Minimal ability to converse • Avoids or resists unpleasant stimulation through nonverbal means • Unable to put together complete picture	• Focus on tactile cues, colors • Stimulus bound • Utilization bound • Scattered attention • May put non-food items in mouth

Adapted from Snow (2008) with permission.

**WHAT ARE SOME OF
THE CAREGIVING
AND BEHAVIOR
CHALLENGES
FAMILIES AND
PATIENTS
EXPERIENCE?**



COMMON BEHAVIOR CHALLENGES

- Aggression and anger
- Anxiety and agitation
- Depression/apathy
- Hallucinations
- Memory loss and confusion
- Repetition
- Sleep issues and sundowning
- Suspicions and delusions
- Wandering



TREATMENT



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“The treatment of neuropsychiatric symptoms remains a challenge. The current evidence suggests that the role of drug treatment is limited, and non-pharmacological strategies are first line, in particular some behavioral management techniques, especially those involving caregiver- and staff-oriented interventions.”

— Reynolds, Jeste, Sachdev & Blazer, 2022, p. 342

“People with dementia are trying to make sense of the world around them in the best way that they can.”

“...each person...has a lifelong history of responding to other people and situations in certain ways, and the brain disease may exaggerate these patterns.”

“...dementia lowers an individual’s ability to tolerate stress and fatigue. Problem behaviors may reflect a [loved one’s] frustration at being unable to communicate verbally something that is troubling him or her (e.g., physical pain or feeling frightened).”

BEHAVIORS ARE COMMUNICATION

WHAT'S THE PROBLEM?

- A 75yo M presents with his spouse for follow-up regarding depression and memory changes. His spouse reports that the patient keeps asking the same question over and over again, and she [spouse] is very frustrated. The spouse reports she tells the patient that he already asked the question, which doesn't help. Per spouse, the patient has been more irritable and easily upset when he used to be so easygoing.

TOOLS FOR UNDERSTANDING DIFFICULT BEHAVIORS

“To effectively understand a challenging dementia-related behavior, it is crucial to understand the circumstances surrounding the behavior.”

The ABC's of Behavior

- The **A-activator** is what happens just before the behavior
- **B-behavior**
- The **C-consequence** is what occurs just after the behavior and can make the behavior better, continue, or worsen

ABC'S OF BEHAVIOR

Activator

- Cause or a trigger of the behavior.
- Can be internal or external.

Behavior

- Observable
- What was loved one doing?
- Who was present?
- Where was behavior happening?
- When was behavior happening?

Consequence

- What follows a behavior.
- Consequences cause behaviors to get better, continue, or get worse.
- Consequences that worsen or maintain behavior should be eliminated. Consequences that improve behavior can be incorporated into behavior plan.

COMMUNICATION TIPS



- Nonverbal behaviors can enhance communication. These can include a kind gesture, a positive/pleasant tone of voice, a smiling face, and a relaxed body posture.
 - Be present
 - Avoid distractions
 - Position yourself to make eye contact
- The message we send to others is not always the message received. This is often especially the case with individuals with dementia.
- Communication can be a powerful activator of a loved one's behavior.
- When there is a problem, check the nonverbal messages being sent.
- Loved ones may become overwhelmed or confused when asked too many questions or given too many instructions.

TYPES OF ACTIVATORS OF CHALLENGING BEHAVIORS

Medical	• Infection • Pain or physical discomfort • Medication side effects • Incontinence or constipation • Hunger or dehydration • Lack of sleep or fatigue • Sensory loss
Psychological	• Sadness (or reminders of a sad event) • Loneliness • Feeling scared or anxious • Anger

TYPES OF ACTIVATORS OF CHALLENGING BEHAVIORS

Environmental	• Too much noise, activity, clutter, and/or people • Unfamiliar persons, places, and/or things • Startling movements, noise, or touch • Insufficient lighting • Changes in schedules and routines • Shift changes • Being left alone for too long, boredom
Interpersonal	• Repeated questions or demands • Caregiver impatience, tone of voice • Inability to perform simple tasks (becoming frustrated) • Being rushed • Being touched or held in ways that are frightening or confining • Verbal reasoning and logical explanations • Activities perceived as insulting or child-like

ALZ ASSOCIATION - TREATMENTS FOR BEHAVIOR

The screenshot shows the Alzheimer's Association website. At the top, there is a navigation bar with links: Find Local Resources, About, News, Events, Professionals, E-News, and English. Below this is the Alzheimer's Association logo and a 24/7 Helpline number: 800.272.3900. A search bar and two orange buttons labeled 'DONATE' and 'GIVE IN HONOR & MEMORY' are also present. A dark purple navigation bar contains links for 'About Alzheimer's & Dementia', 'Help & Support', 'Research', and 'Get Involved'. Below this is a breadcrumb trail: Home > Help & Support > Caregiving > Stages and Behaviors. The main heading is 'Stages and Behaviors'. A paragraph follows: 'As Alzheimer's and other dementias progress, behaviors change — as does your role as caregiver. While changes in behavior can be challenging, we have resources to help you through each stage of the disease.' Below this is a section titled 'Select a Topic' with a horizontal line. In the bottom right corner, there is a green 'Live Chat' button.

Find Local Resources About News Events Professionals E-News English

ALZHEIMER'S ASSOCIATION Call Our 24/7 Helpline 800.272.3900 Enter your search DONATE GIVE IN HONOR & MEMORY

About Alzheimer's & Dementia Help & Support Research Get Involved

Home > Help & Support > Caregiving > Stages and Behaviors

Stages and Behaviors

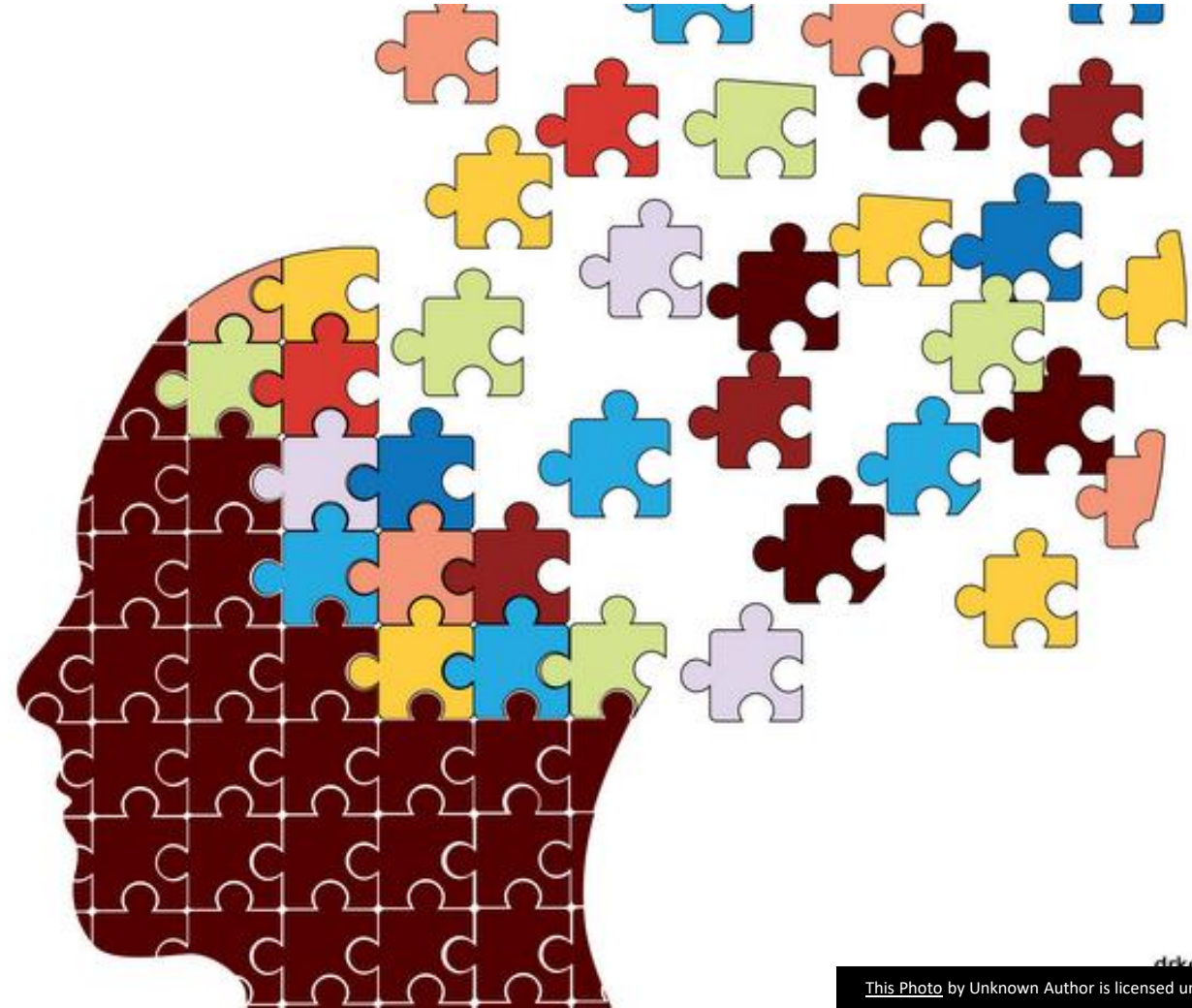
As Alzheimer's and other dementias progress, behaviors change — as does your role as caregiver. While changes in behavior can be challenging, we have resources to help you through each stage of the disease.

Select a Topic

Live Chat

(<https://www.alz.org/help-support/caregiving/stages-behaviors>)

BEHAVIORAL HEALTH SUPPORT



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DEMENTIA ROADMAP

Action Steps Summary

- ❑ **Obtain a medical assessment** of memory loss/cognitive impairment and diagnosis for your loved one—this opens the door to necessary planning. This process should start with your health care practitioner, and may involve other specialists such as a Geriatrician, a Neurologist, and/or a Neuropsychologist
- ❑ **Contact the Alzheimer's Association** or Alzheimer Society of Washington (Whatcom County) for information and support.
- ❑ **Contact your area's Community Living Connections** (Area Agency on Aging/Family Caregiver Support Program).
- ❑ **Complete health care planning documents.** Your loved one should have:
 - A Health Care Directive (also called a "living will" or "advance directive" regarding treatment preferences); and
 - A Durable Power of Attorney for Health Care, appointing a health care "agent."
- ❑ **Complete a General Durable Power of Attorney document.** In this document, your loved one appoints an "agent" to assist with financial and related matters.
- ❑ **Complete an estate plan.** Your loved one's estate plan may include legal documents such as a will or a trust that direct the disposition of their estate upon death.
- ❑ **Consider Care Coordination** or Case Management Services: "Guides" for the journey, they can assist with each step.
- ❑ **Complete end-of-life planning** and document how your loved one wants to live at the end of their life, including medical care wanted or not wanted, comfort measures, and palliative and hospice care.
- ❑ **Discuss with loved one the issue of when to discontinue driving.** If needed, enlist help of healthcare provider, a professional driving evaluation, or call the Alzheimer's Association for more ideas.
- ❑ **Make sure your loved one either carries ID** or wears MedicAlert+Safe Return jewelry.
- ❑ **If help with financing care is needed,** contact your local Community Living Connections or Home and Community Services offices. Find these at www.wacdc.org/connect.
- ❑ **Have family meetings** along the way to discuss what's happening, and how to support the person with memory loss and care partner. Important topics of discussion include:
 - Encouraging a diagnosis;
 - Discussing safety issues, such as driving and safe medication use;
 - Needing support with financial or legal planning;
 - Coordinating care at home;
 - Considering safe living situation and options;
 - Discussing ways to support the primary care partner/caregiver.
- ❑ **Request a home safety evaluation** with a Physical or Occupational Therapist to make the home safer and home care tasks easier.
- ❑ **Make and update a back-up plan** along the way to be used if something happens to you.
- ❑ **Discuss and seek palliative care** and hospice care.
- ❑ **Talk to health care professional** about establishing a Physician's Order for Life Sustaining Treatment (POLST) when appropriate.

A TEAM BASED APPROACH TO DEMENTIA CARE

- Behavioral Health can assist with:
 - Gathering history of symptom progression
 - Cognitive screening
 - Gathering information from informants
 - Psychoeducation for families
 - Problem solving regarding challenging behaviors
 - Support in discussions regarding goals of care
 - Evidence based interventions for depression, anxiety, sleep IF cognitive abilities allow
 - Concerns regarding capacity/safety



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BEHAVIORAL HEALTH CONSULTS

- Warm Handoffs/shared visits
- Tools for tracking symptom progression and severity
 - [Dementia Severity Rating Scale](#)
 - [Neuropsychiatric Inventory \(NPI\)](#)
 - [Alzheimer's Association Provider Toolkit](#)
- How aggressively do you want to treat other medical concerns?
- Have you completed a POLST?
- Are there safety/capacity concerns?

DIRECTIONS FOR CLINICAL PRACTICE



Behavioral Health should be playing a major role in comprehensively assessing and treating cognitive concerns



Clinical services and diagnostic pathways should be improved to facilitate early and accurate diagnosis



Better models of collaborative care for dementia and cognitive concerns should be developed to support immediately after diagnosis and in the longer term



Encourage healthy behaviors – what's good for the body is good for the brain!

(Reynolds, Jeste, Sachdev, & Blazer, 2022; p.343)



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RESOURCES

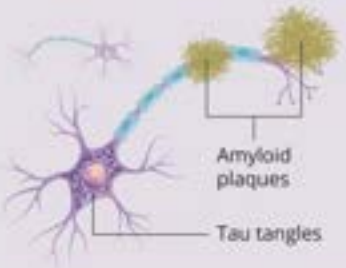
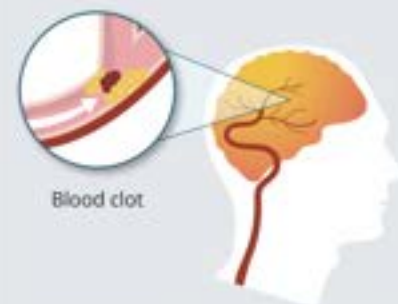


Understanding Different Types of Dementia

As we age, it's normal to lose some neurons in the brain. People living with dementia, however, experience far greater loss. Many neurons stop working, lose connections with other brain cells, and eventually die. At first, symptoms can be mild, but they get worse over time. Read on to learn more about four different types of dementia.



TYPES OF DEMENTIA

Alzheimer's Disease	Frontotemporal Dementia	Lewy Body Dementia	Vascular Dementia
What Is Happening in the Brain?*			
Abnormal deposits of proteins form amyloid plaques and tau tangles throughout the brain. 	Abnormal amounts or forms of tau and TDP-43 proteins accumulate inside neurons in the frontal and temporal lobes. 	Abnormal deposits of the alpha-synuclein protein, called "Lewy bodies," affect the brain's chemical messengers. 	Conditions, such as blood clots, disrupt blood flow in the brain. 
<i>*These changes are just one piece of a complex puzzle that scientists are studying to understand the underlying causes of these forms of dementia and others.</i>			

ACTIVITIES AND PROGRAMS FOR PEOPLE LIVING WITH DEMENTIA - SOCIAL

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Dementia-Friendly Programs and Initiatives



Photo courtesy: iStockphoto

The UW MBWC provides support and resources to help bring dementia-friendly programs and initiatives to your community. These "dementia friendly" programs are based on the unique features of the community and the interests of the people who live there. Libraries, senior centers, museums, parks and recreation, arts centers, faith communities, BMCA's, service clubs and more can all play a part. Check out these initiatives and programs.

Dementia-Friendly Awareness Initiatives

PEOPLE

Marigrace Becker, MSW
Program Manager of Community Education and Impact, MBWC | Director, The Memory Hub: A Place for Dementia-Friendly Community, Collaboration, and Impact

[View Profile](#)

Emily Meeks
Program Manager for Dementia Friends, The Memory Hub, UW Memory and Brain Wellness Center

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RELATED NEWS



Dementia Friends Champion Spotlight: Saton Fitzblacken



"A Kaleidoscope of Experiences" at the Dementia Without Borders Event



Bringing a New Vision of Social Citizenship to Cascadia



Beyond Seattle, Residents Bring Dementia-Friendly Initiatives to

DRIVING

The challenge with driving and dementia is to preserve a person's sense of independence for as long as possible, while simultaneously protecting the safety of that person and others.

- **Consider the frequency and severity of incidents.** Several minor incidents or an unusual, major incident may warrant action.
- **Look for *patterns* of change over time.** Isolated or minor incidents do not warrant immediate or drastic action.
- **Avoid an alarming reaction.** Take notes and have conversations at a later, convenient time, rather than during or immediately after an incident
- [At the Crossroads - Family Conversations about Alzheimer's Disease, Dementia, and Driving](#)
- Washington State Department of Licensing – [Report Unsafe Drivers](#)

ADVANCE CARE PLANNING

- [Dementia Directive](#)
- [Dementia Care Navigation Service](#)
- Alzheimer's Association 24/7 Help Line
 - 1.800.272.3900
- Legal and financial planning



COMMUNICATION RESOURCES

- Listen with Respect, Comfort, and Redirect
- [Alzheimer's Association Communication Tips](#)
- [VA Dementia Care Resources](#)
- [Dementia Roadmap](#)

Listen with Respect; Comfort and Redirect (LRCR)

After introducing yourself at the beginning of the interaction, use the following communication skills:

1. Listen

Make sure that the resident **KNOWS** you are listening.

- Make eye contact with the resident.
- Focus on the resident; don't try to do two things at once.

2. Respect

Sometimes being too casual with residents can be viewed as disrespect.

- Start with formality
- Later, ask the resident how he or she likes to be addressed.
- Pay attention to the resident's nonverbal communication. If he or she is bothered by your communication style try a different way.



3. Comfort

What we say and how we say it can provide comfort to residents who are anxious or depressed.

- Pay more attention to what the resident may be thinking or feeling than what he or she might be saying.
- Let the resident know that you understand.
- Persons with dementia who are anxious and depressed need help to calm down.

4. Redirect

Sometimes providing comfort is not enough. Try to redirect or distract the resident from his or her problem behavior.

- Attempt to change the subject after you have shown respect and tried comfort measures.
- Try to involve the resident in pleasant events.
- Whatever you do, **DON'T ARGUE.**

Adapted with permission from Teri, L., Hude, P., Gibbons, L., Young, M., & van Leynseele, J. (2005). STAR: A dementia-specific training program for staff in assisted living residences. *Gerontologist*, 45, 686-693.



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Teaching Evaluation for Mari Yamamoto - Working with Older Adults with Cognitive Concerns



REFERENCES

D. (n.d.). Dementia Road Map: A Guide for Family and Care Partners. Retrieved April 1, 2019, from [https://www.dshs.wa.gov/sites/default/files/ALISA/stakeholders/documents/AD/Dementia Road Map - A Guide for Family and Care Partners.pdf](https://www.dshs.wa.gov/sites/default/files/ALISA/stakeholders/documents/AD/Dementia%20Road%20Map%20-%20A%20Guide%20for%20Family%20and%20Care%20Partners.pdf)

Harada, C. N., Love, M. C. N., & Triebel, K. L. (2013). Normal cognitive aging. *Clinics in geriatric medicine*, 29(4), 737-752.

Karlin, B. E., Teri, L., McGee, J. S., Sutherland, E. S., Asghar-Ali, A., Crocker, S. M., Smith, T. L., Curyto, K., Drexler, M., & Karel, M. J. (2017). STAR-VA Intervention for Managing Challenging Behaviors in VA Community Living Center Residents with Dementia: Manual for STAR-VA Behavioral Coordinators and Nurse Champions. Washington, DC: U.S. Department of Veterans Affairs.

Lezak, M. D., Howieson, D. B., Bigler, E. D., & Tranel, D. (2012). *Neuropsychological assessment*. New York: Oxford University Press.

Livingston, G., Huntley, J., Sommerlad, A., Ames, D., Ballard, C., Banerjee, S., ... & Mukadam, N. (2020). Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *The lancet*, 396(10248), 413-446.

Memory Brain and Wellness Center.. UW Living with Memory Loss - A Basic Guide. Retrieved April 1, 2019, from https://depts.washington.edu/mbwc/content/page-files/LWML-Handbook_reduced_2_27_17.pdf

Morrison, J. H., & Baxter, M. G. (2012). The ageing cortical synapse: hallmarks and implications for cognitive decline. *Nature Reviews Neuroscience*, 13(4), 240-250.

REFERENCES

National Institute of Health. (2025, June 5). *Infographic: Understanding different types of dementia | National Institute on Aging*. National Institute on Aging. <https://www.nia.nih.gov/health/alzheimers-and-dementia/understanding-different-types-dementia>

Rowe JW, Kahn RL. (1997). Successful aging. *Gerontologist*;37:433-40.

Reynolds, C. F., 3rd, Jeste, D. V., Sachdev, P. S., & Blazer, D. G. (2022). Mental health care for older adults: recent advances and new directions in clinical practice and research. *World psychiatry : official journal of the World Psychiatric Association (WPA)*, 21(3), 336–363. <https://doi.org/10.1002/wps.20996>

Teissier, T., Boulanger, E., & Deramecourt, V. (2020). Normal ageing of the brain: Histological and biological aspects. *Revue neurologique*, 176(9), 649-660.

Treatments for Behavior. (n.d.). Retrieved April 25, from <https://www.alz.org/alzheimers-dementia/treatments/treatments-for-behavior>
United Nations Department of Economic and Social Affairs. World population ageing 2019. New York: United Nations, 2020.