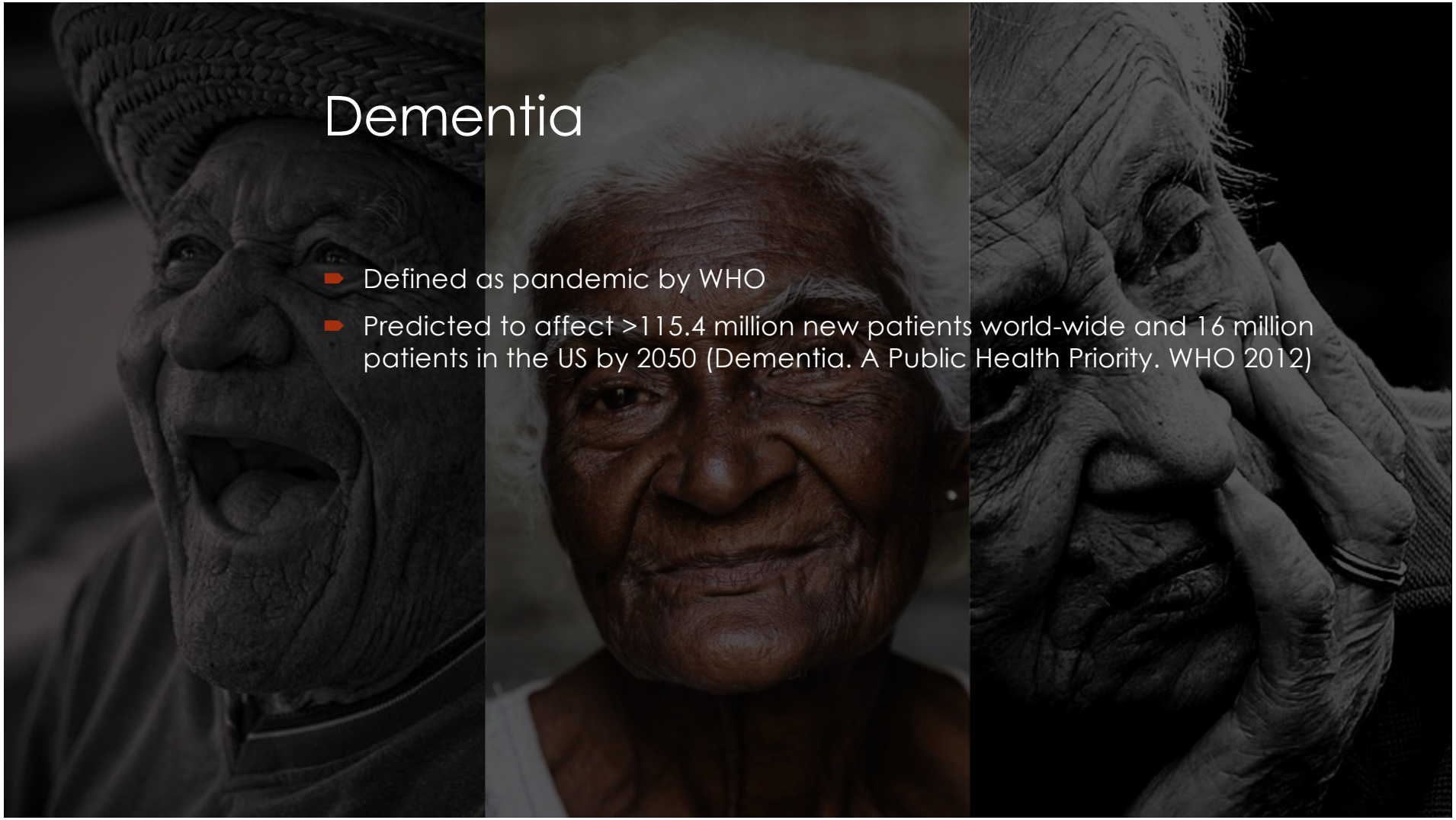
Non-Pharmacologic Management of Behavioral and Neuropsychiatric Symptoms in Dementia

Veronika Zantop, MD

Consult-Liaison Psychiatrist Swedish Medical Center

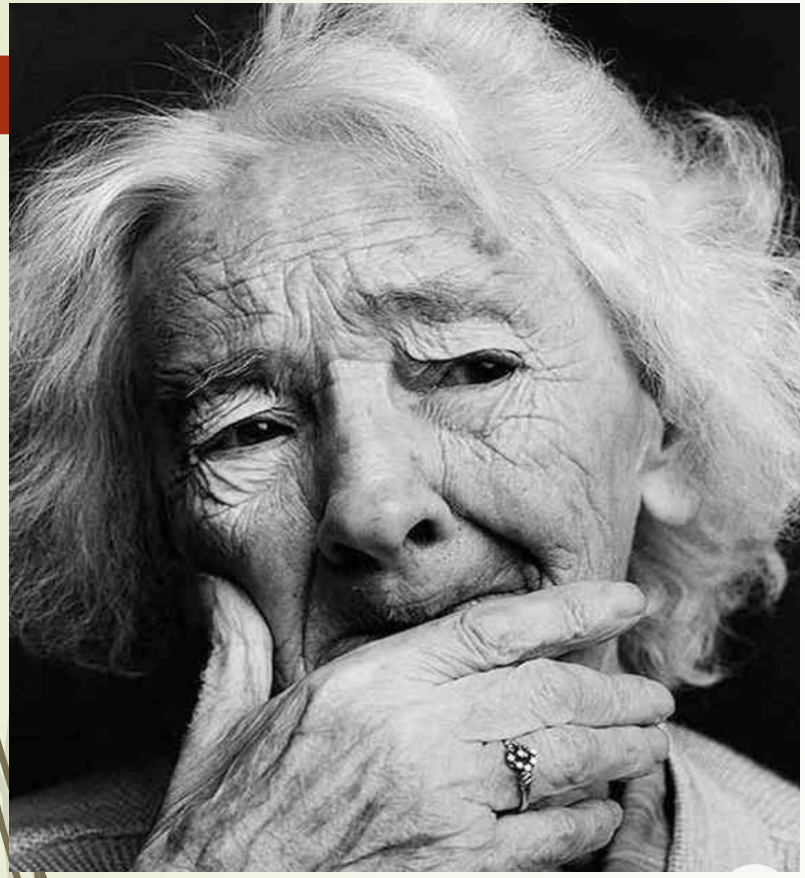
Learning Objectives

- Explore the consequences of untreated behavioral issues
- Learn about what defines behavioral issues
- Review why pharmacologic strategies are first-line
- Explore factors contributing to behavioral issues
- Review range of interventions targeting individuals, the environment, and caregivers



Dementia

- Defined as pandemic by WHO
- Predicted to affect >115.4 million new patients world-wide and 16 million patients in the US by 2050 (Dementia. A Public Health Priority. WHO 2012)



Behavioral issues are core clinical feature of dementia

If untreated, lead to the following:

- More rapid disease progression, functional decline, increase in morbidity/mortality (falls, sedation, CV and neurologic sx)
- Earlier nursing home placement
- Worse quality of life
- Increase in caregiver burnout (depression, risk of harm, decrease QOL)
- Higher healthcare utilization and costs
- Increased institutionalization and psychiatric admissions

Non-Cognitive Symptoms

Heterogenous group of non-cognitive manifestations

Psychological

- Depression
- Apathy
- Agitation
- Delusions/Hallucinations

Behavioral

- Repetitive Vocalizations
- Shadowing
- Wandering
- Argumentativeness

Symptoms can change with illness severity

MILD

Depression/apathy

- Decreased motivation for > 4 weeks and 2 of the following:
  - Decrease goal-directed behavior
  - Decrease goal-directed cognitive actions
  - Decrease in emotions

MEDIUM TO SEVERE

Delusions

Hallucinations

Aggression

- Emotional distress
- Excessive psychomotor activity
- Wandering
- Aggressive behavior, Irritability
- Disinhibition
- Vocally disruptive behavior

Agitation

Physical	Verbal	Passive
• Hitting, biting, pushing	• Threats, screaming, attention getting	• Withdrawing, handwringing, blank stares

Behavior specific to particular types of dementia

Vascular Dementia → depression

Lewy-Body Dementia → hallucinations

Fronto-Temporal Dementia → loss of executive control

- Disinhibition
- Wandering
- Social inappropriateness
- Apathy

Non-pharmacologic treatment is first line

- Management frequently involves psychopharmacology (off label use of anti-psychotics, anti-cholinergic medications)
- Medications show modest to no benefits compared to placebo
- Treatments have myriad side effects – increased confusion, falls, EPS
- Antipsychotics increase risk of all-cause mortality

Risk Factors

- Caregiver distress
- Patient pain
- Sleep disturbance
- Inadequate nutrition
- Infection
- Acute medical illness

Interacting Factors

Behavioral issues not only result of cognitive decline

Represent confluence of interacting factors

- Internal – pain, fear
- External – over-stimulation, complex caregiver communication

Behaviors can be conceptualized as:

- Expression of unmet needs
- Inadvertant re-enforcement – screaming to get attention
- Consequences of mismatch between environment and patient inability to process and act on cues, expectations, and demands

Strategies directed towards **individuals**

- Increase calming sensory stimulation (eg, music therapy and personalized activities)
- Use a gentle, calm approach
- Use nonverbal, nonthreatening communication
- Keep communication simple and direct
- Give reassurance
- Empathize with and acknowledge concerns
- Avoid using commands or bossing
- Use distraction or redirection to alter focus
- Maintain routines to avoid disorientation
- Increase daytime activities

Strategies directed towards **environment**

- Avoid sensory deprivation
- Avoid overstimulating environments
- Watch for utilization behaviors
- Out of sight, out of mind
- Provide an open, safe, contained environment
- Remove objects if hyperoral behaviors are present
- Increase lighting to reduce evening and nocturnal confusion

Strategies directed towards **caregivers**

- Caregiver education and resource support
- Person-Centered Care (PCC) approaches
- Dementia Care Mapping (DCM)
- Treatment Routes for Exploring Agitation (TREA)
- Tailored Activity Programs (TAP)
- Describe-Investigate-Create-Evaluate (DICE)

Communication

- Allow patient sufficient time to respond to a question
- Provide one to two step simple verbal commands
- Use calm, reassuring tone
- Offer simple choices (no more than 2 at a time)
- Avoid negative words and tone
- Use a light touch to reassure, calm, or redirect
- Identify self and others if patient does not remember names
- Help patient find words to express him/hers

Environment

- Remove clutter or unnecessary objects
- Use labeling or other visual cues
- Eliminate noise and distractions while you are communicating or when patient is engaging in an activity
- Use simple visual reminders (arrows pointing to bathroom)

Caregiver

- Understand that behaviors are not intentional
- Learn how to relax the rules (e.g., no right or wrong in performing activities/tasks as long as patient and caregiver is safe)
- With disease progression, patient may have difficulty initiating, sequencing, organizing and completing taskswithout guidance and cueing
- Go along with patient's view of what is true and avoid arguing or trying to reason or convince
- Take care of self; find opportunities for respite; practice healthy behaviors and preventive doctor visits
- Identify and draw upon a support network

Tasks

- Break each task into very simple steps
- Use verbal or tactile prompt for each step
- Provide structured daily routines that are predictable

Activities

- Introduce activities that tap into preserved capabilities and previous interests
- Introduce activities involving repetitive motion (washing windows, folding towels, putting coins in container)
- Set up of the activity and helping patient initiate may be necessary

Karttunen K, Karppi P, Hiltunen A, et al. Neuropsychiatric symptoms and quality of life in patients with very mild and mild Alzheimer's disease. *Int J Geriatr Psychiatry*. 2011;26(5):473–482. [PubMed] [Google Scholar]

Okura T, Plassman BL, Steffens DC, Llewellyn DJ, Potter GG, Langa KM. Prevalence of neuropsychiatric symptoms and their association with functional limitations in older adults in the United States: The Aging, Demographics, and Memory Study. *J Am Geriatr Soc*. 2010;58(2):330–337. [PMC free article] [PubMed] [Google Scholar]

Kales HC, Chen P, Blow FC, Welsh DE, Mellow AM. Rates of clinical depression diagnosis, functional impairment, and nursing home placement in coexisting dementia and depression. *Am J Geriatr Psychiatry*. 2005;13(6):441–449.

Lyketsos CG, Sheppard JM, Steinberg M, et al. Neuropsychiatric disturbance in Alzheimer's disease clusters into three groups: The Cache County study. *Int J Geriatr Psychiatry*. 2001;16(11):1043–1053. [PubMed] [Google Scholar]

Marra C, Quaranta D, Zinno M, et al. Clusters of cognitive and behavioral disorders clearly distinguish primary progressive aphasia from Frontal Lobe Dementia, and Alzheimer's disease. *Dement Geriatr Cogn Disord*. 2007;24(5):317–326. [PubMed] [Google Scholar]

Nyatsanza S, Shetty T, Gregory C, Lough S, Dawson K, Hodges JR. A study of stereotypic behaviours in Alzheimer's disease and Frontal and Temporal Variant Frontotemporal dementia. *J Neurol Neurosurg Psychiatry*. 2003;74(10):1398–1402. [PMC free article] [PubMed] [Google Scholar]

Staekenborg SS, Su T, van Straaten EC, et al. Behavioural and psychological symptoms in vascular dementia; differences between small- and large-vessel disease. *J Neurol Neurosurg Psychiatry*. 2010;81(5):547–551. [PubMed] [Google Scholar]

Rabins PV, Blacker D, et al. American Psychiatric Association practice guideline for the treatment of patients with Alzheimer's disease and other dementias. *Am J Psychiatry*. (Second) 2007;164(12 Suppl):5–56. [PubMed] [Google Scholar

Scharre, D. Behavioral Approaches in Dementia Care. Practical Neurology. June 2021]