

Introduction to the behavioral & psychological symptoms of dementia

this content is up-to-date as of
May 3, 2021



Wisconsin Alzheimer's Institute

UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

What is academic detailing?

academic
detailing
visit



**presentation about
a BPSD topic**



case discussion



**determine future
topics**

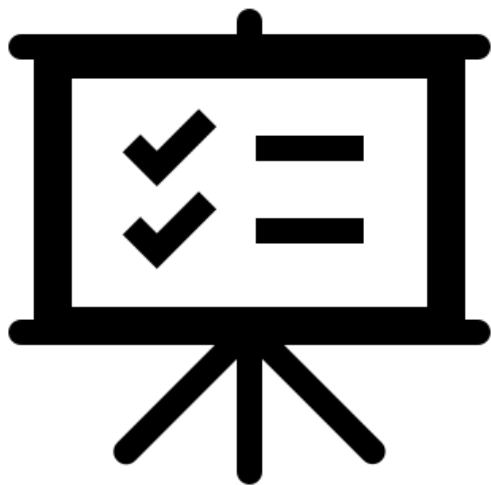
6 monthly
academic
detailing visits

3 academic detailing
visits,
every other month

2 academic detailing
visits,
every 3 months



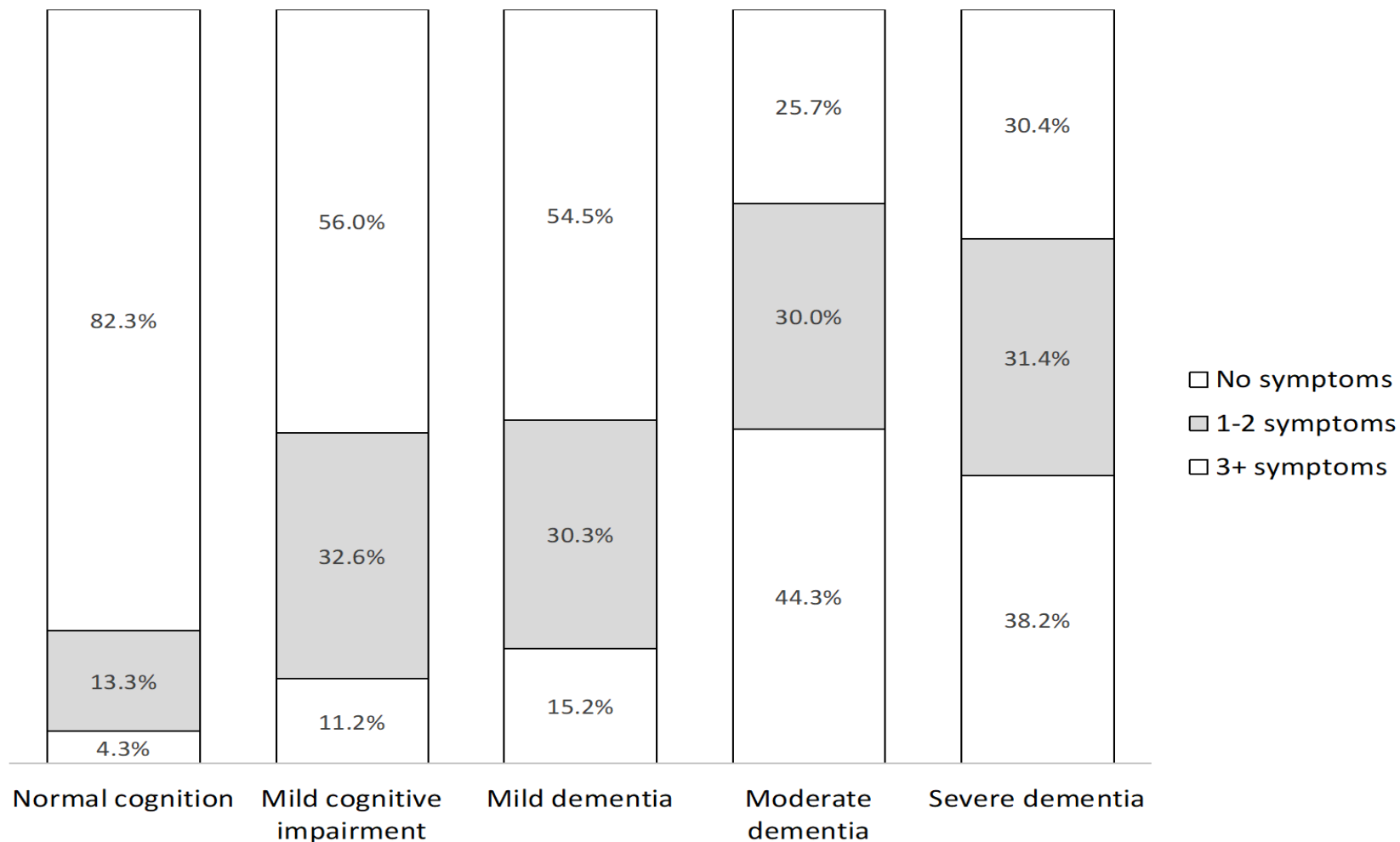
Learning objectives



- Describe the natural history, prevalence & presentation of behavioral and psychological symptoms of dementia
- Explain how BPSD arise
- Develop a plan for assessing BPSD
- List the elements of a plan to manage BPSD, including non-pharmacological interventions

Natural history of BPSD

Prevalence of BPSD, by cognitive status



Prevalence of specific BPSD

Symptom	Prevalence
apathy	49%
depression	42%
aggression	40%
sleep disorder	39%
anxiety	39%
irritability	36%
appetite disorder	34%
aberrant motor behavior	32%
delusions	31%
disinhibition	17%
hallucinations	16%
euphoria	7%

BPSD vary by cause of dementia

Cause of dementia	Behavioral and psychological symptoms
Alzheimer's disease	<u>mild dementia</u> : depression, anxiety, insomnia <u>moderate to severe</u> : hallucinations, delusions, repetitiveness, aggression
Lewy body disease*	visual hallucinations, delusions, anxiety, REM sleep behavior disorder
vascular dementia	apathy, amotivation, depression
frontotemporal dementia, behavioral variant	disinhibition, verbal repetitiveness, aggression, hyperorality, apathy
Down syndrome	withdrawal/apathy, impulsivity, anxiety, aggression, tantrums, wandering, hoarding, sleep disturbance, weight change

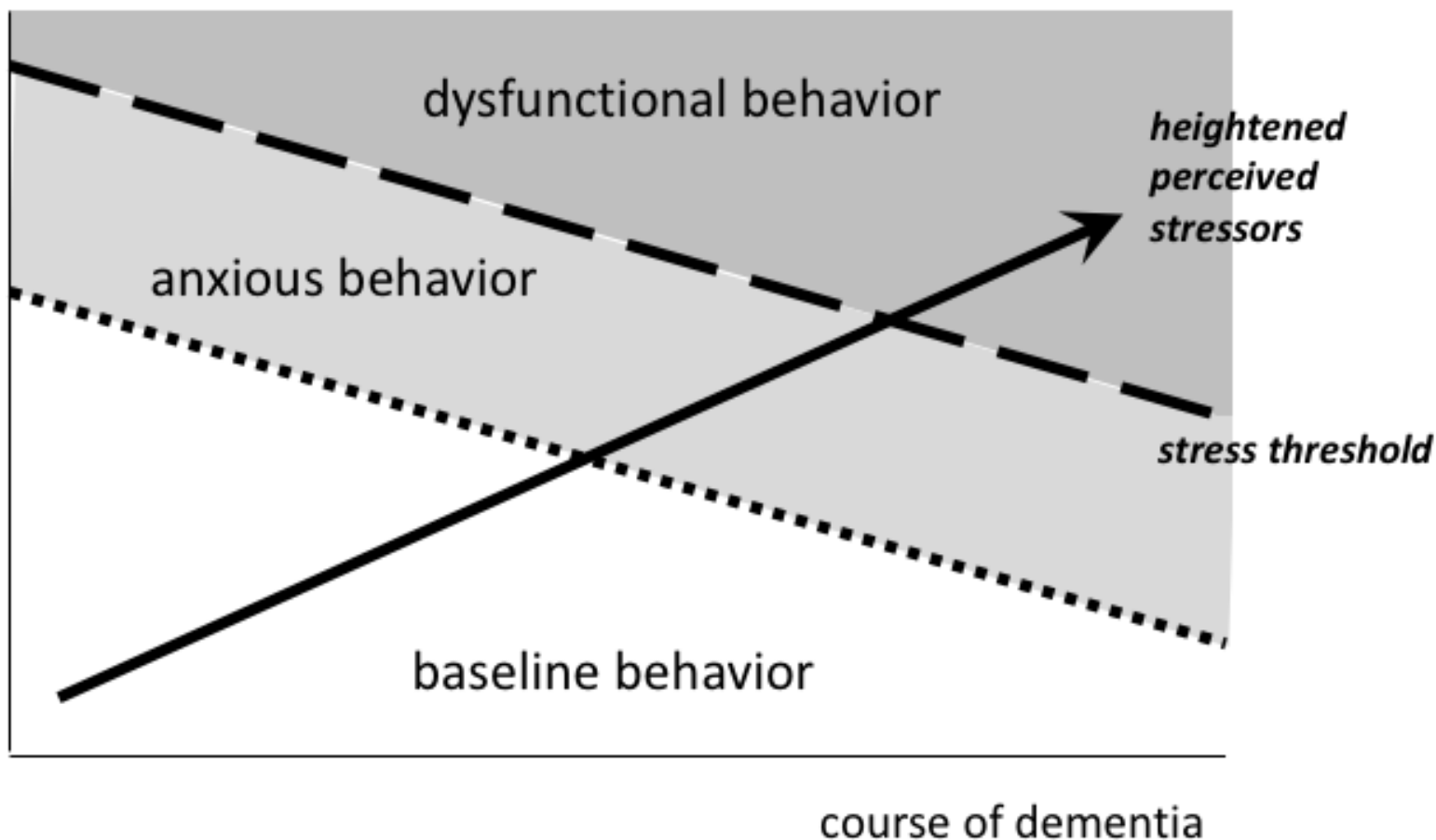
Why do BPSD arise? (1)

Behavioral model



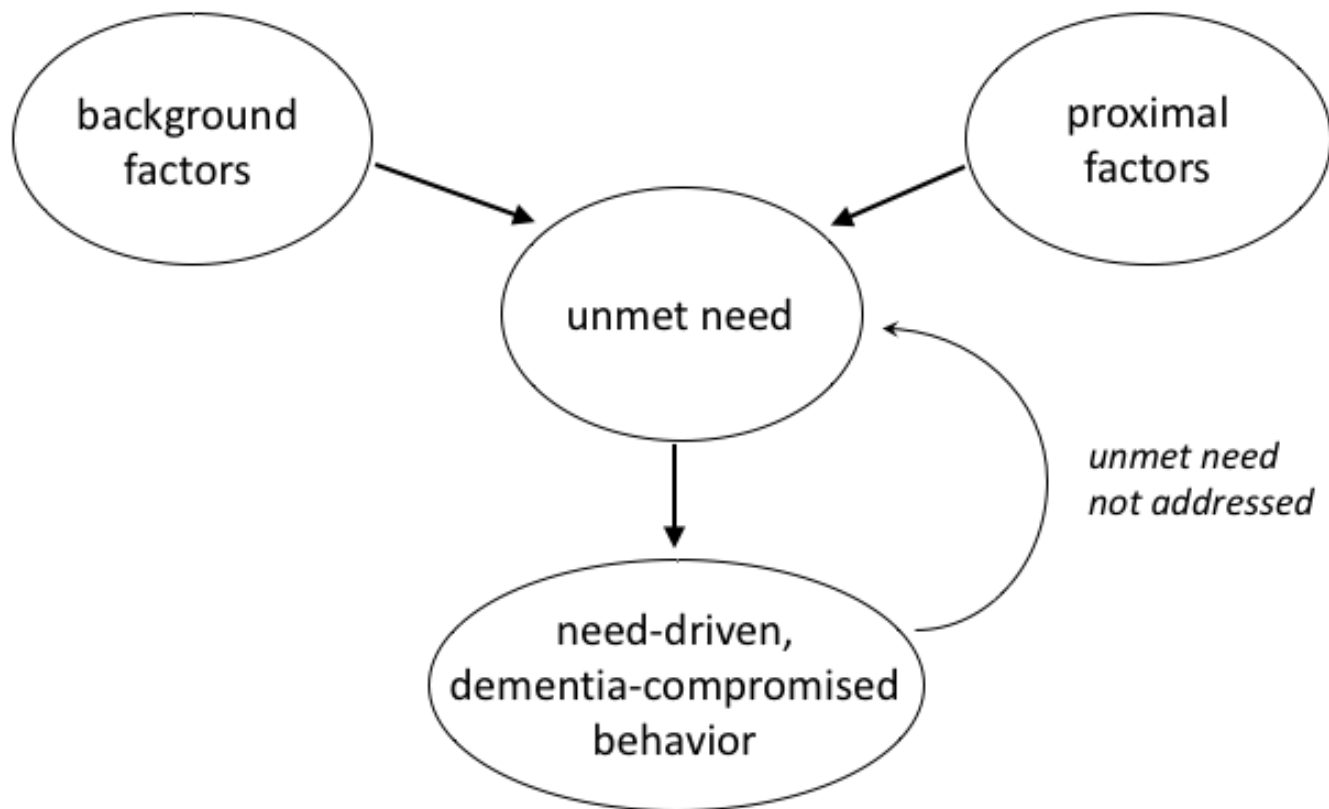
Why do BPSD arise? (2)

Progressively lowered stress threshold model



Why do BPSD arise? (3)

Unmet needs model



Assessment of BPSD (1)

- Ask the following for each BPSD:
 - timing: how often? how long does it last? how long has it been present?
 - severity: dangerous? distressing? at risk of escalating? other risks (e.g., losing housing)? interfering with care?
 - antecedents: precipitants? patterns?
 - consequences: how do caregivers respond? what works and doesn't work?
 - history: new behavior? if not new, is it different

Assessment of BPSD (2)

- Screen for all BPSD:
 - depression
 - apathy
 - verbal aggression
 - physical aggression & agitation
 - wandering
 - refusing medications or assistance with ADLs
 - disturbances of sleep-wake cycle
 - anxiety & irritability
 - delusions & hallucinations
 - elation, euphoria & disinhibition
 - pathological laughing or crying
 - alterations in appetite & eating

Assessment of BPSD (3)

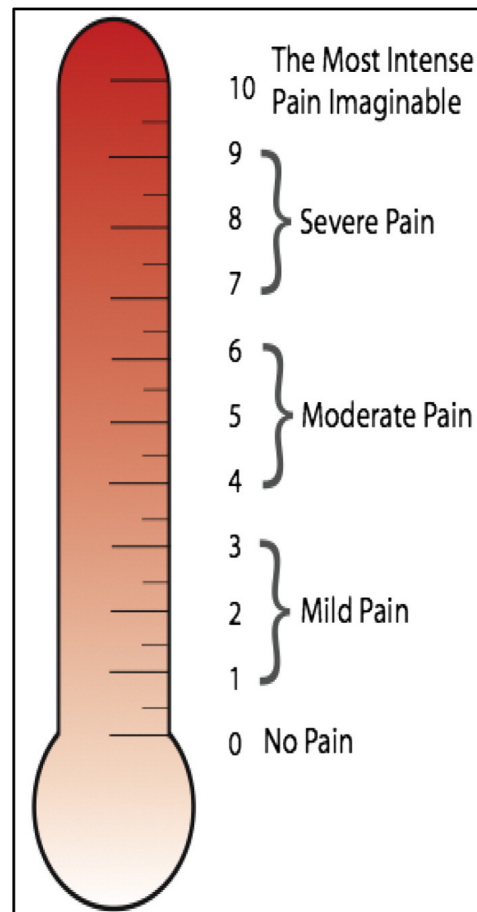
- screen for caregiver burden
 - consider PHQ-2 to screen for depression
- consider medical contributions
- assess pain
- review medication list & other substances
- screen for elder abuse
 - e.g., with Elder Abuse Screening Index

Medical causes of BPSD

metabolic	• high or low electrolytes (sodium, calcium, magnesium) • high or low blood sugar • acute kidney injury • end stage liver disease (hepatic encephalopathy) • hypoxia or hypercarbia • hypothyroidism or hyperthyroidism • vitamin deficiency (thiamine, B₁₂)
infectious	• urinary tract infection • meningitis or encephalitis • other infections
CNS insults	• stroke • subdural hematoma • epileptic seizure or post-ictal state • traumatic brain injury
other	• constipation, urinary retention, dehydration, malnutrition • vision loss, hearing loss • sleep disorders (e.g., sleep apnea, REM sleep behavior disorder) • pain

Pain in persons with dementia

- epidemiology:
 - 64% of community-dwelling elders with dementia report pain that is bothersome
 - 43% report pain that limits their activities
- screening:
 - mild to moderate dementia: Iowa Pain Thermometer
 - severe dementia: Pain Assessment in Advanced Dementia (PAINAD)
- treatment:
 - scheduled acetaminophen 1000 mg two or three times daily



Iowa Pain Thermometer

Other substances that can cause BPSD

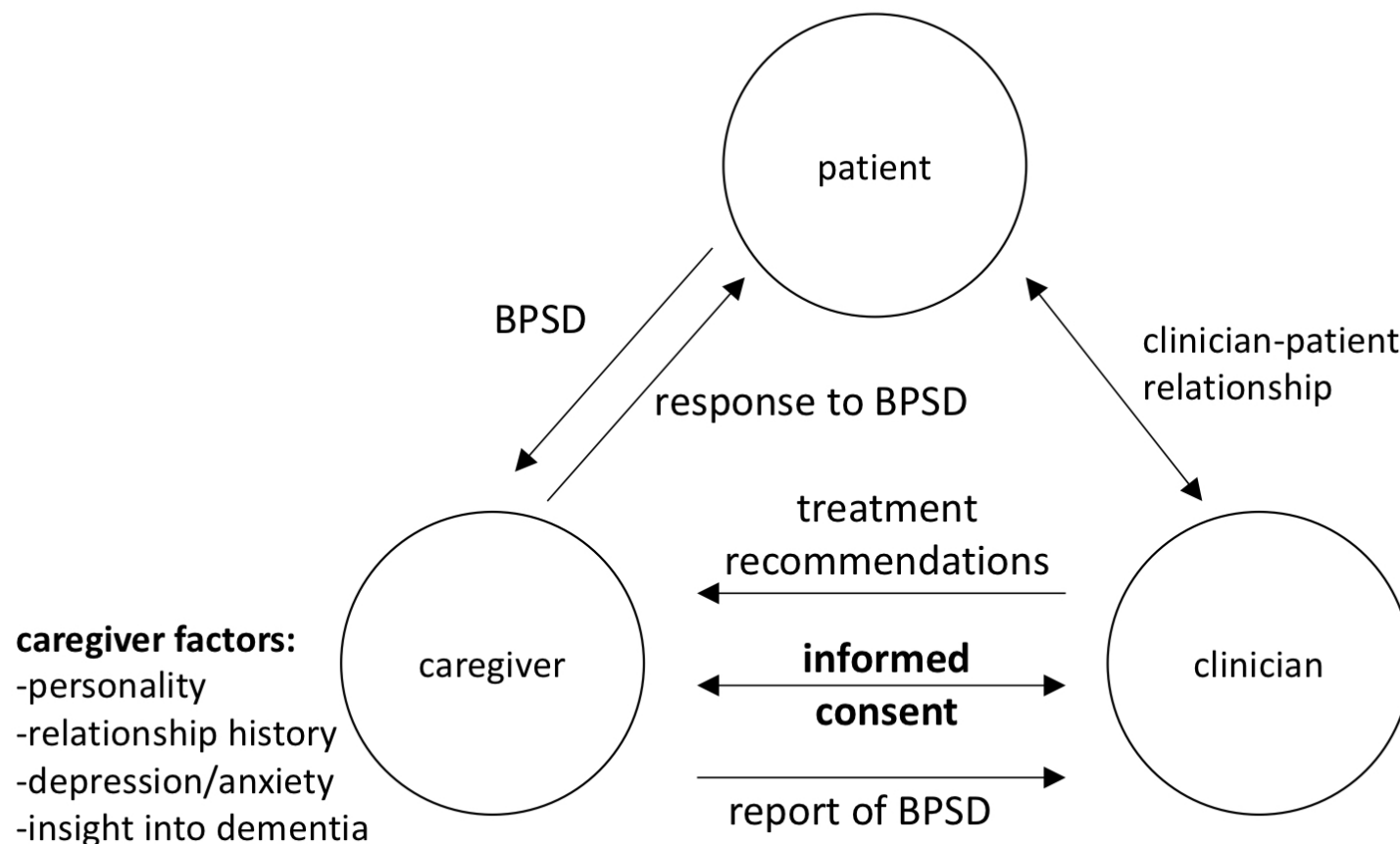


- alcohol
- cannabis
- CAM (e.g., St. John's wort)
- supplements (e.g., calcium)

Cultural and spiritual factors

- cultural factors may
 - affect how patients and family members interpret the symptoms of dementia
 - determine whether or not medical attention is sought
 - interfere with access to healthcare, e.g., because of language barriers
- prevalence of BPSD generally similar across various ethnicities in the U.S.
- cultural expectations around the responsibilities of children and grandchildren with respect to the elders may affect the relationships among patients and family caregivers
- consider using APA's Cultural Formulation Interview (CFI)

The role of caregivers



Summary: assessing BPSD

1. Thoroughly assess primary symptom of concern
2. Is there imminent risk of harm to the patient or others?
 - Yes: conduct focused evaluation, then go to steps 4, 5 and 9
 - No: continue with step 3
3. Screen for all BPSD
4. Search for medical causes, and rule out delirium
5. Review of list of medications, and screen for substance use
6. Explore psychological, psychosocial, environmental, cultural & spiritual factors
7. Explore caregiver factors, and screen for depression
8. Screen for elder abuse
9. Develop initial formulation, e.g., using DICE

Preview: Overview of management

- treat underlying medical causes
- discontinue offending medications & substances
- support & educate caregivers & other family members
- develop a psychological, behavioral & environmental management plan
- avoid adding new medications, unless there is risk of harm to patient or others
- if a medication is added, regularly monitor outcomes & attempt discontinuation
- ensure that patients & caregivers are in a safe environment