# (The Importance of) Non-Pharmacologic Interventions for Behavioral Disturbances in LTC Facility Residents with Dementia

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## Workshop Objectives

1. Understand the impact of the disease process on the persons ability to function.
2. Rethink how we respond to behaviors.
3. There are effective alternatives to medication in managing behaviors.

# Behavior should be anticipated & accommodated by staff.

Behavioral and psychiatric symptoms develop in 80% of patients with dementia living in nursing homes. (Testad et al., 2007; Zuidema et al., 2006)

Rates of physical aggression among dementia patients in institutional settings range from 31% to 42% (Brodaty and Low, 2003).

Psychosis and agitation in patients with dementia decrease quality of life (Matsui et al., 2006; Banerjee et al., 2006 [Staff turnover, etc.]

A combination of the various adverse effects of neuropsychiatric symptoms in dementia likely leads to increased system-wide healthcare costs (Murman and Colenda, 2005)

## Pharmacologic Interventions Yield Only Modest Benefit.

**RCTs examining antipsychotics for psychosis and/or agitation associated with dementia suggest only modest efficacy in symptom reduction compared to placebo. (30-40% improve with placebo)**

**Most of these drugs have other side effects such as sedation, postural hypotension, and falls, especially at higher doses.**

- In recent trials, no significant therapeutic effects were found for haloperidol compared to:
  - placebo and trazodone (Teri et al., 2000),
  - compared to placebo and quetiapine (Tariot et al., 2006), and
  - compared to risperidone and placebo (De Deyn et al., 1999).
- Some, though not all, RCTs with risperidone, olanzapine, and aripiprazole have shown modest efficacy for reducing aggression and overall agitation in AD (Ballard and Waite, 2006; Sink et al., 2005).
- The recent CATIE-AD trial suggested that side effect burden may negate the clinical effectiveness of these agents.

# Proaction NOT Reaction

## This is a staff education problem:

- Behavior is communication and can be understood
- Identifying the underlying cause of behavior is 1st step
- No magic bullet
- Medication should always be the last resort

# Non-pharmacologic Interventions Work

**A comprehensive program to reduce antipsychotic drug use through education of physicians, nurses, and other nursing home staff was effective in two rural community nursing homes.** Ray, et al. (1993)

- **The number of days of antipsychotic use decreased by 72% in the education homes compared to 13% in the control homes.**
- **A more recent study demonstrated that a training and support intervention delivered to nursing home staff decreased the use of antipsychotics** (Fossey et al., 2006).

# Facility Leadership is Critical

**High-quality dementia care in long-term care settings is facilitated by nurses:**

- acting as role models (by demonstrating how care can be provided),
- advocates (by encouraging team members to think about behavior as communication),
- and teachers who provide both formal and informal instruction to nursing assistants and other caregivers.

**"Staff opinions about the leadership and organization of municipal dementia care."** L. Albinsson MD, P. Strang MD PhD. 2002.

**Finding:** Without any unreasonable increase in cost, measures such as introducing clear leadership at the care unit level, concentrating on multi-professional teamwork, and providing education and guidance/supervision to the staff would result in better care for patients with dementia and their families.

# Resident Characteristics Associated with Physical or Verbal Aggression in NH Residents with Dementia

- Depression is #1
- Hallucinations
- Delusions
- Constipation (physical aggression)

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- Urinary Tract Infections
- Acute Illness
- Generalized confusion
- Pain
- Caregiver Interaction

Source: Leonard, R., et al. Potentially Modifiable Resident Characteristics That Are Associated With Physical or Verbal Aggression Among Nursing Home Residents With Dementia. Arch Internal Medicine/Vol 166. June 26, 2006.

## A Framework for Understanding Behavior

# Progressively Lowered Stress Threshold (PLST)

Source: Hall, G., Buckwalter, K. Progressively Lowered Stress Threshold: A Conceptual Model of Care of Adults with Alzheimer's Disease. Arch Psychiatric Nursing, 1987.

**PLST (Continued)**

## Stress Inducers

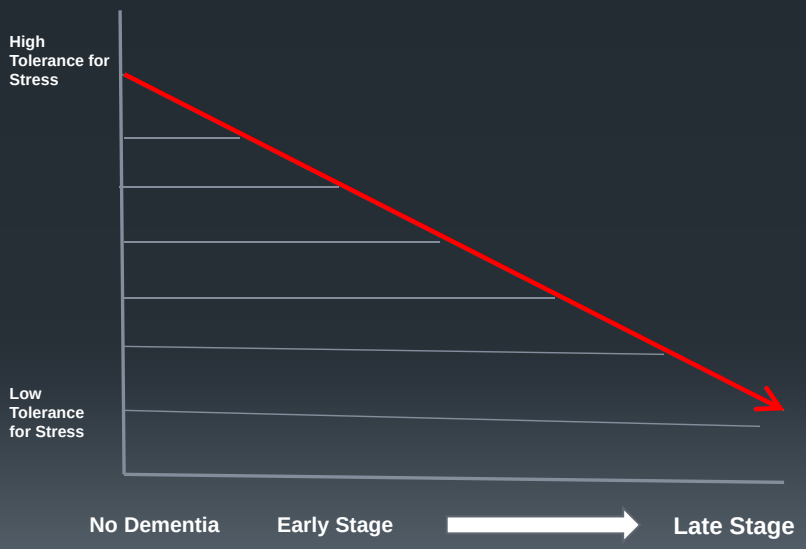
**Internal**

- Pain, discomfort
- Fatigue
- Hunger
- Unmet quality of life needs
  - Attention, intimacy, purpose
- Impaired ability to communicate
- Impaired ability to be understood
- Negative feelings
  - Feeling like a failure, lonely, scared

**External**

- Environmental distractions
- Noise overload
- Caregiver interaction

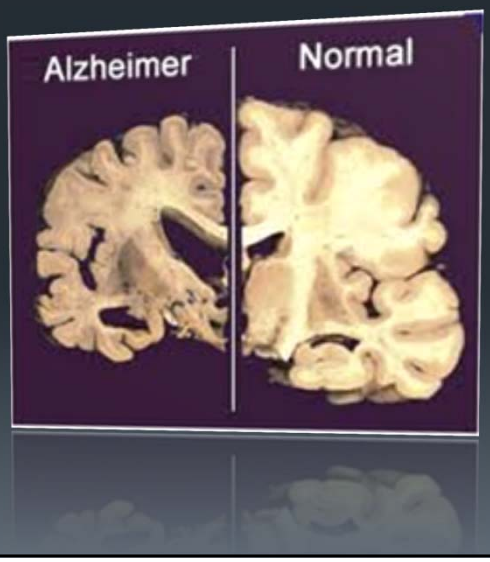
## Progressively Lowered Stress Threshold




## How would you feel?

- Poor nights sleep
- A 15 minute ADL experience
- Sitting and waiting for breakfast
- Sitting in a large, noisy, crowded, over stimulating dining room
- Difficulty feeding yourself
- Urinating or defecating in pants and waiting to be cleaned up
- Sitting in an activity that is far too high level and therefore becomes “noise”
- Wandering along through the halls and being told to “leave that alone” or to “go sit down”
- Feeling pain from arthritis and aren’t able to ask for pain medications
- Feeling embarrassed, violated and uncomfortable when showered naked by strangers in a cold, scary room
- Not being engaged socially, comforted or loved throughout the day
- Never feeling like a success in anything you do

## Damaged Brain



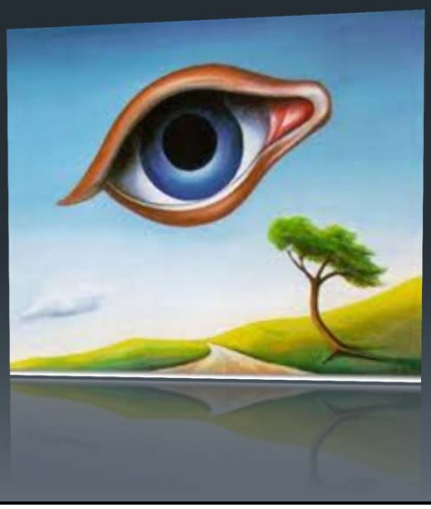

## Impaired Executive Function

***Controls and regulates behavior and emotion.***

- **Initiate and stop actions.**
- **Monitor and change behavior.**
- **Plan and change behavior in novel situations.**
- **Anticipate outcomes & adapt to changing situations.**

# Changes in Perception

- Apraxia - breakdown in the ability to translate a verbal command into its motor expression.
  - Use of tools, unable to follow commands
- Agnosia - miscommunication between what the eyes see and how the brain interprets what the eyes see.
  - Home, self, spouse



# Threat Perception

***"Threat perception in mild cognitive impairment and early dementia."***

Henry JD, Thompson C, Ruffman T, Leslie F, Withall A, Sachdev P, Brodaty H.
School of Psychology, University of New South Wales, Sydney, NSW 2052, Australia.
julie.henry@unsw.edu.au

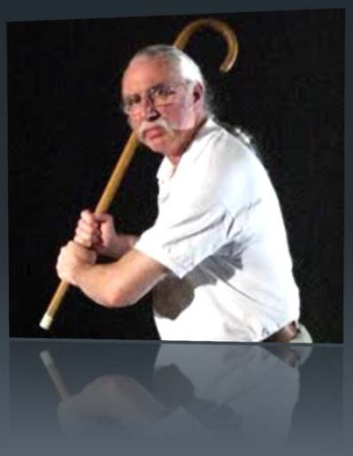
Dementia group had difficulties differentiating high from low-danger situations, which reflected a bias to over attribute the level of threat posed by normatively judged nonthreatening situations.

Source: J Gerontol B Psychol Sci Soc Sci. 2009 Sep;64(5):603-7. Epub 2009 Aug 11.

# Etiology of Behavior

*Just as fever can be a symptom of infection…*

aggressive and agitated behaviors suggests the presence of a medical, psychological, or social problem.



**Behavior is communication. Behavior has meaning.**

# Interventions

**First line treatment:**

*Identify the underlying cause of the behavior.*

## Assess Before You Intervene…What happened?

- What was the resident doing just before?
- What was happening in the environment?
- Who was with the resident at the time?
- What was the impact on other residents?
- Any recent physical illness or changes?
- Any recent medication changes?
- Past history of this type of behavior?

## Before picking up the phone consider the most common causes of behaviors:

- Pre-morbid personality and habits
- Sudden change? Rule-out delirium, UTI
- Review medications – new med, recent change?
- Chronic pain conditions – check the chart
- Mental health history
- Caregiver interaction – is it something staff did?
- Environmental – noise, clutter, lighting

## Caregiver Interaction

**"Characteristics Associated With Behavioral Symptoms Related to Dementia in Long-Term Care Residents."** **Malaz Boustani, MD, MPH, et al. 2004**

**The prevalence of Behavioral Symptoms Related to Dementia (BSRD) was associated with staff training and resident cognition, mood, mobility, and psychotropic use. Attention to staff training and depression management might improve BSRD.**

**"Nursing home staff attitudes towards residents with dementia: strain and satisfaction with work."** Henry Brodaty AO MBBS MD FRACP FRANZCP, Brian Draper MBBS MD FRANZCP, Lee-Fay Low BSc. 2003

**The five attributes staff found most difficult to cope with were being aggressive/hostile, having little control over their difficult behavior, being stubborn/resistive, deliberately difficult, and unpredictable.**

# Whose problem is it?

**Not initiating any specific treatment may be a viable option in mild-to-moderate cases, or if symptoms are not overtly disturbing for the patient and are not resulting in impaired functioning.**

# Pain

***"Efficacy of treating pain to reduce behavioral disturbances in residents of nursing homes with dementia: cluster randomized clinical trial."***

Bettina S Husebo *postdoctoral fellow*1, Clive Ballard *professor*2, Reidun Sandvik *registered nurse*1, Odd Bjarte Nilsen *statistician* 3, Dag Aarsland *professor* 4

Finding: A standardized protocol to treat pain in residents of nursing homes with moderate to severe dementia *significantly improved* agitation, aggression, and pain.

**Source: *BMJ* 2011;343:d4065 doi: 10.1136/bmj.d4065**

# Hearing Aids

**“There’s a Monster Under My Bed”: Hearing Aids and Dementia in Long-Term Care Settings.**

**Annals of Long Term Care, August 2012.**

Sensory deprivation can lead to agitated delirium in patients with dementia and demonstrates the diagnostic value of exploring the nature of specific hallucinations in these persons.

## Complementary Methods

- **Pet therapy**
  - The presence of a therapy dog for 30 minutes on two occasions during sundown hours significantly reduced the number of agitated behaviors in 28 older adults with AD. (Calming the Cognitively Impaired by Arlene Orhon Jech, RN, BSN)
- **Massage, aromatherapy, and touch therapy**
  - A study involving 10 individuals with Alzheimer’s disease who were treated with therapeutic touch for 5 to 7 minutes twice a day for three days showed significant decrease in overall agitated behavior and in vocalization and pacing during and after treatment. The study also showed that the individuals’ salivary and urine cortisol (an increased cortisol level is related to stress) decreased over time. (Woods DL, Dimond M. The effect of therapeutic touch on agitated behavior and cortisol in persons with Alzheimer’s disease. *Biol Res Nurs.* 2002;4(2):104-14.)
- **Music therapy**
  - Statistically significant reduction in the agitation of eight elderly individuals with dementia during the presentation of music on the day shift during weeks 1 to 8 and on the evening shift during weeks 5 to 8. (Gerdner LA. Use of individualized music by trained staff and family: translating research into practice. *J Gerontol Nurs.* 2005;31(6):22-30; quiz 55-6. )
  - A study of 18 severely cognitively impaired elders randomly observed during bathing during a two-week period showed that those who listened to preferred music had a reduction of 12 of 15 identified aggressive behaviors. The reduction was significant for a reduction in the total number of behaviors, as well as for hitting behaviors. (Clark ME, Lipe AW, Bilbrey M. Use of music to decrease aggressive behaviors in people with dementia. *J Gerontol Nurs.* 1998;24(7):10-7. )

# End of Life

Agitated nursing home residents may exhibit behaviors indicative of medical status change up to 3 months prior to their deaths.

Source: **Behavioral Characteristics of Agitated Nursing Home Residents With Dementia at the End of Life**
**Rebecca S. Allen, PhD**1,2, **Louis D. Burgio, PhD**1,2, **Susan E. Fisher, MA**1,2, **J. Michael Hardin, PhD**2,3, and **John L. Shuster Jr., MD**2,4

# Last line of treatment

Only severe symptoms that are persistent or recurrent and cause clinically significant functional disruption would generally be considered appropriate for ongoing pharmacologic management.

**Start low…go slow.**

Source: **ACNP White Paper: Update on Use of Antipsychotic Drugs in Elderly Persons with Dementia**
Dilip V. Jeste, M.D., Dan Blazer, M.D., Ph.D., M.P.H., Daniel Casey, M.D., Thomas Meeks, M.D., Carl Salzman, M.D., Lon Schneider, M.D., Pierre Tariot, M.D., and Kristine Yaffe, M.D.

# Final Thoughts

- What about under funded and under staffed facilities where the staff tries to solve the manpower crisis by chemical means?
- Caring for someone with dementia especially with 'challenging behavior' is likely to evoke difficult feelings in the most experienced of care staff.

*"We did the best we knew how to do,*
*and when we knew better we did better."*
Maya Angelou

*"To the world you may be only one person,*
*but to one person you may be the world."*
Unknown

# Thank You!

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