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# Behavioral Frameworks for Dementia Management

Mary Beth Mason, PhD, CCC-SLP
Robert W. Serianni, MS, CCC-SLP, FNAP

Moderated by:
Amy Natho, MS, CCC-SLP, CEU Administrator, SpeechPathology.com

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# Behavioral Frameworks for Dementia Management

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# Speaker Bios

- Dr. Mary Beth Mason is a Full Professor and Founding Program Director of the Speech-Language Pathology program at Thiel College. She has served other institutions as Department Chairperson, Graduate Program Head, and Program Director. Dr. Mason is active in professional service. She served as the Pennsylvania Speech-Language-Hearing Association (PSHA) Vice President for Convention Planning and Program and PSHA President. She is currently serving as PSHA Vice President for Membership and Ethical Practices. She also served as Coordinator for ASHA Special Interest Group 15 Gerontology. She has numerous presentations and publications in the areas of dementia, aging, aphasia, and professional issues.

# Speaker Bios

- Bob is Chair/Program Director and Assistant Professor in the Department of Speech-Language Pathology at Salus University. In addition to supervising students in the clinic, Bob teaches classes, including an interprofessional class that incorporates students from across the various health disciplines represented at Salus. Prior to joining the faculty in 2015, Bob held clinical and administrative roles for a variety of healthcare providers. He has experience in assessing and treating adults in acute care, rehabilitation, and home health settings – he continues a small private practice for home-bound patients still today. His research interests include clinical supervision and interprofessional education and practice in the field of Speech-Language Pathology as well as adult neurogenic communication and swallowing disorders. After earning his Master's degree in Speech-Language Pathology from Loyola University Maryland, Bob relocated back to his hometown of Philadelphia to practice. He holds the Certificate of Clinical Competence from the American Speech-Language-Hearing Association.

- **Presenter Disclosure:** Mary Beth Mason - Financial: Mary Beth Mason received an honorarium for this presentation. Nonfinancial: No relevant relationships to disclose.Robert Serianni - Financial: Robert Serianni received an honorarium for this presentation. Nonfinancial: No relevant relationships to disclose.

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# Learning Outcomes

After this course, participants will be able to:

- Explain differences in clinical manifestations and the assessment and treatment considerations for various dementia types.
- Identify at least three treatment methods that have been proven effective for adults with dementia in recent research studies.
- Describe the rationale for using various evidence-based behavioral frameworks as treatment approaches for different dementia types and severity levels.

# Dementia types: Alzheimer's Disease, Vascular Dementia, and Frontotemporal Degeneration

# Alzheimer's Disease

- Neuropathologies
- Clinical manifestations
- Hallmark symptoms
- Typical course

# Vascular Dementia

- Neuropathologies
- Clinical manifestations
- Hallmark symptoms
- Typical course

# Frontotemporal Degeneration

- Neuropathologies
- Clinical manifestations
- Hallmark symptoms
- Typical course

Q1

# Evidence-Based Practices

# General Research Considerations

- Reliability of differential Dx
- Majority of research specifically with Alzheimer's disease or unspecified dementia types
- Treatment focus often on maintenance, not improvement
- Each patient's symptoms are very individualized which can impact validity and generalization of treatment results
- Lack of randomized controlled trials

# Direct Treatments

- Direct Cognitive Training
- Reality Orientation
- Reminiscence Therapy
- Montessori Programming
- Spaced Retrieval

Q2

# Direct Cognitive Training

- Not strongly supported by research findings
- If positive outcomes occur, how long will they last based on progressive nature of most dementias?
- Will cognitive training lead to more behavior problems in FTD d/t patient not having insight into own disorder?
- What specific cognitive areas should be targeted?
  - Hierarchy of cognition:  attention, memory, processing, problem-solving, executive function

# Reality Orientation

- Will reality orientation continue to be effective in middle and advanced stages of dementia?
- EBP—Experienced Based Practice– sometimes reality orientation can agitate and lead to increased behaviors such as repetitive questions and aggressiveness

# Reminiscence Therapy

- Not appropriate for those with advanced dementia or those with behavioral disturbances
- Logistical concerns:  group settings of those with similar levels of function
- Facilitator needs to be familiar with participants' backgrounds
- Overall, popular activity among paid caregivers

# Montessori Programming

- Can be used individually and in group settings with varying levels of function
- SLP must identify level of function and appropriate adaptations and educate caregivers before implementing

# Spaced Retrieval

- Applicable to varying levels of function
- Treatment must be consistent and frequent
- Must be highly individualized to increase effectiveness

# Indirect Treatments

- Caregiver Training
- Supported Conversations
- Simulated Presence Therapy
- Environmental Modifications

# Caregiver Training

- Outcomes highly dependent on specific issues the caregiver is facing and focus of training.
- Communication strategy training may be more effective for a caregiver of a person with AD versus FTD

# Supported Conversations

- May have modest effects on depressive symptoms, irritability, and aggression that may be noted among all three types of dementia
- May have positive effects on the amount or type of communication
- Caregiver strain considerations

# Simulated Presence Therapy

- Across the board, may help decrease episodes of resistance  to care by less familiar caregivers
- Behaviors noted to improve were taking medication and feeding (O'Conner, Smith, et al., 2011)
- Logistical concerns: technology, availability of recordings
- Doesn't help primary caregiver with resistance to care

# Environmental Adaptations

- Communication Environment as defined by Brush, Sanford, et al., 2011
  - Communication Partners
  - Cognitive Aspects
  - Visual Aspects
  - Auditory Aspects

# Behavioral Approaches: An Overview

Q3

# Behavioral Approaches

- Autism Spectrum Disorders
- Traumatic Brain Injury

# Behaviors Related to Cognitive-Communicative Breakdowns

- Disruptive, inappropriate, and aggressive behaviors in patients with dementia can often be linked to breakdowns in communication.
  - Example: A person throwing food items because they are unable to verbally communicate that they don't like it
  - Example: A person urinating in a public area because they are verbally unable to communicate the need to use the bathroom and are cognitively unable to locate it on their own.
  - Example: A person repeatedly asking where her husband is because she can't remember that she is in a nursing home
  - Example:  A person resisting care because he doesn't recognize the caregiver and is unable to communicate his fear/anxiety

# Existing Research

- Findings from Sung & Chang (2005)
  - Preferred music intervention demonstrated positive outcomes in reducing the occurrence of some types of agitated behaviors in older people with dementia
  - It also suggests that preferred music intervention could be a viable alternative to chemical and physical restraints for managing behavioral symptoms of dementia

# Existing Research

- Findings from Buchanan (2006):
  - Medical intervention often leads to a plethora of new issues for patients with dementia due to
    - The unwanted side effects associated with the medications,
    - Adverse interactions of medications in patients with polypharmacy
    - The effectiveness of the disorder brain in metabolizing medications.
  - Negative Behaviors Targeted: Depression, Wandering, Disruptive Vocalizations, Decreased Socialization, and Inappropriate Sexual Activity

# Successful Behavioral Treatment Approaches

- Montessori Programming (Mahendra, Hopper, et al., 2006)
  - When tasks are tailored to an individual's level of function, increased participation will be reinforced via person's feeling of success thus increased participation should be generalized

- Spaced Retrieval (Brush & Camp, 1998; Camp, 1999; Camp, Bird & Cherry, 2000)
  - Systematic pairing of verbal information/strategy with motor response

# Behavioral Principles and Behavioral Frameworks

# Basic Concepts

- Classical/Respondent Conditioning
- Operant Conditioning

# Goals of Behavior Treatments in Dementia

- Help patients maintain highest level of function possible for as long as possible
- Decrease or prevent inappropriate behaviors

- *Adapted from Buchanan (2006)*

# Initiating Behavior Treatments

- Must be able to identify behavior triggers and behavior consequences
- Think in terms of cognitive-communicative breakdowns as behavior triggers

# Behavioral Techniques: Environmental Modifications, Errorless Learning, and Reinforcement Schedules

# Procedures for Behavioral Intervention in Dementia

- Graduated prompting
- Reinforcement
  - Errorless Learning
  - Contingency Training
  - Non-contingent (time-based schedule)
- Environmental modifications/adaptations

# Prompts/Cues

- Graduated Prompting
  - Pair visual and verbal prompts
  - Signs
  - Color-coding/signals to denote specific environments
  - Clocks/calendars

# Reinforcement

- Learning is increased if stimulus if paired with reinforcement
  - Errorless Learning
  - Contingency Training
  - Noncontingent/Time-Based Reinforcement

# Environment

- Cognitive
  - Cues
  - Personalized spaces and materials
- Visual Aspects
  - Lighting
  - Visual organization
  - Maximize sightlines
  - Contrast
  - Glare
- Auditory Aspects
  - Background noise
  - Reverberation
- Environmental and Communication Assessment Toolkit (ECAT), Brush et al., 2012

# Implementing Behavioral Techniques for Specific Inappropriate Behaviors

# Wandering and Exit-Seeking

- Most prevalent in AD
- Result of a breakdown of stimulus control or ability to integrate environmental information to make appropriate goal-directed decisions
- Environmental/verbal cues pairings with tangible reinforcement for desirable outcome:  color-coded arrows, grid patterns, aversive stimuli in dangerous areas, visual barriers, etc.

# Inappropriate Sexual Behaviors

- Most prevalent in FTD
- Result of a breakdown of stimulus control– the behavior is not necessarily inappropriate but the environment/timing is
- When behavior noted in inappropriate setting, provide verbal/physical redirection, color-code/pattern appropriate environment for behavior, pair redirection with environmental discrimination

# Aggressive Behaviors

- Middle-stage AD, VaD, FTD
- Reinforcement positive behaviors during ADLs
- Environmental modifications: preferred music and preferred stimulus items

# Agitation

- AD, VaD, FTD
- May include aggression, pacing, disruptive vocalizations
- Differential reinforcement:  ignore disruptive vocalizations while reinforcing positive behaviors
- Noncontingent reinforcement: when patient asks repetitive questions, caregivers provide answer/assurance on set time-schedule not as a response to the question

# Feeding Problems

- AD, VaD, FTD
- Inability to feed self, disruptive mealtime behaviors, food refusal, eating inappropriate objects
- Always rule out medical etiologies for problems before addressing issues using ABA approach
- Increased visual/verbal prompts and reinforcement
- Environmental modifications:  increased length of meal, more supported-autonomy in food selection, family style dining
- Differential reinforcement to decrease inappropriate eating behaviors

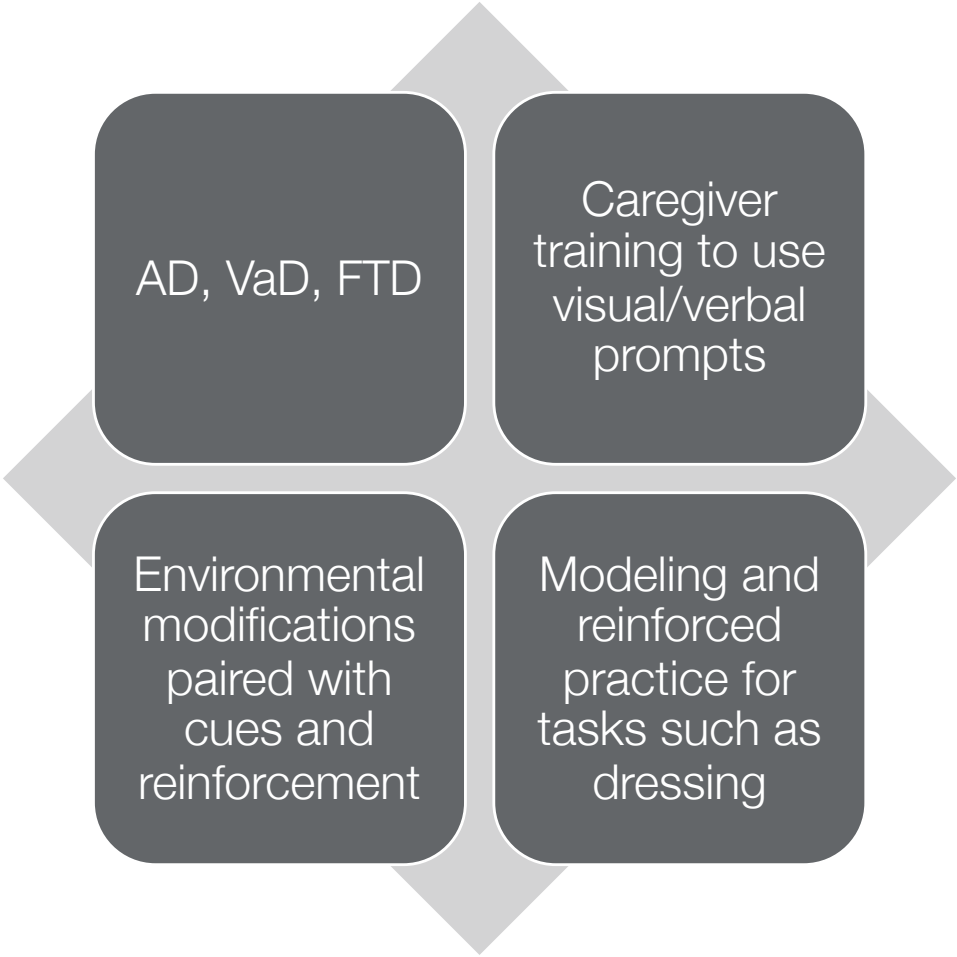
# Incontinence

- AD, VaD, FTD
- Always rule out medical etiologies before using ABA approach
- Prompting Voiding schedule with use of verbal prompts, physical redirection, environmental modifications appropriate for cognitive function, reinforcing dryness, feedback when wetness occurs (social disapproval as negative reinforcement/reminders to ask for help)

# Increased Socialization and Participation

- AD, VaD, FTD
- Verbal reinforcement/praise for participation
- Tangible reinforcement such as cookies for participation
- Environmental modifications to promote socialization
- Montessori Programming

# Increased Independence During ADLs



# Project-Based Treatments

- Person-centered
- Interventions and supports are organized around personally-meaningful activities
- Contextual supports are critical for success
- Reduction of supports is part of the plan
- Positive everyday routines are the context for pursuit of meaningful goals
- Feedback is context sensitive and part of the plan
- Components of life must be integrated
- Assessment is ongoing and context-sensitive
- Behavioral concerns are addressed via positive behavior supports
- The ultimate goal for individuals with TBI is effective self-regulation with meaningful life

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# DISCUSSION QUESTIONS

Thank You!

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