Interventions for Treating Persons with Dementia

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Objectives
1. Describe a model of memory and learning in dementia.
2. Describe two functional goals that are appropriate for patients with dementia.
3. Provide three different intervention ideas to use in treatment with persons with dementia.

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Population Overview
• For every 100 elderly patients in a nursing home in a given year, 38 will recover or stabilize so they can be discharged.
• About 91% of the 1,650,000 US nursing home residents are over the age of 65.
• The average length of stay for a resident in a LTC setting is 2.44 years.
• The average stay for a Medicare rehabilitation patient is about 23 days.

Some Things to Ponder...
• Memory... is the diary that we all carry about with us. ~Oscar Wilde, “The Importance of Being Earnest”
• Memory is a way of holding onto the things you love, the things you are, the things you never want to lose. ~From the television show The Wonder Years
• Memory is what tells a man that his wife’s birthday was yesterday. ~Mario Rosco
• The man with a clear conscience probably has a poor memory. ~Author Unknown

Why Am I Here??

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Population Overview

- Some common diagnoses addressed in the older adult population:
  - Dementia
  - CVA
  - Brain Injury
  - Mental Illness
  - Dysphagia
  - Additional Disabilities

Dementia Review

- Dementia is not a specific disease
- Dementia is a descriptive term for a collection of symptoms that can be caused by a number of disorders that affect the brain.
- Diagnosis is made if two or more brain functions such as memory and language skills are significantly impaired without loss of consciousness.

Dementia Review

- Diseases:
  - Alzheimer’s disease
  - Vascular dementia
  - Lewy Body dementia
  - Huntington’s disease
  - Creutzfeldt-Jakob disease
  - Alcohol related dementia
  - Brain Injury
  - Cancer

Mistaken Beliefs About Dementia

- Individuals with dementia cannot learn or remember information
  - Best way to care for persons with dementia is to make them comfortable, accept their idiosyncrasies, and be patient with them

Research Tells Us...

- Dementia is the loss of mental functions involving thinking, memory, reasoning, and language to such an extent that it interferes with a person’s daily living.
- Dementia is a group of symptoms that can include:
  - Language disturbances (e.g., aphasia, dysphasia, anomia)
  - Problematic behaviors (e.g., repetitive questioning, wandering)
  - Difficulties with activities of daily living (e.g., dressing, personal grooming)
  - Personality disorders (e.g., disengagement, aggressive behaviors)

Circumvent the Deficits

- Persons with dementia do have weaknesses in the areas of learning and memory BUT a number of strengths exist as well.
  - Ability to learn procedures
  - Ability to read
- Research has shown that the learning of information and its retention depends heavily on how it is presented.
Learning & Memory in Dementia: Model of Memory (Squire, 1994)

Declarative Memory
- Facts
- Events
- World Knowledge
- Vocabulary

Procedural Memory
- Skills
- Habits
- Simple Classical Conditioning
- Priming

Video Example: Learning in Dementia

What We See in Many Facilities...

- Caregivers in facilities (nurses, rehab therapists, activities professionals, nursing assistants) tend to base their interventions on abilities/skills found in declarative memory.
- This leads the person with dementia to experience:
  - failure in given tasks
  - a reduction in self-esteem,
  - a reluctance to take an active role in facility programs and in their own lives.

The Challenges of Challenging Behavior: Breaking Down A Case

Research Tells Us...

- Problematic Behaviors can stem from unmet needs in the areas of:
  - Physiology (undiagnosed/untreated pain)
  - Safety (fear of being hurt)
  - Love and Belonging (fear of being abandoned)
  - Self-actualization (lack of having a meaningful role in the community)
  
  Jiska Cohen-Mansfield

Questions

- To effectively address a problematic behavior and develop an appropriate course of action, we need to ask
  
  "Why did the person with dementia demonstrate this behavior?"

- Keep in mind...Behavior is never random.
Finding the “Why”
• Brainstorm all possible reasons for behavior
  – Physiologic
  – Environmental
  – Lack of meaningful engagement
  – Personal (need for attention, social contact, reassurance, etc.)
• “Who Owns the Problem?”
• Ask person directly!

Circumvent the Deficits
• Maximize remaining abilities to overcome challenges & develop appropriate interventions
• Find individual strengths for each resident and build on them
  – Observe resident
  – Ask family & staff
  – Provide opportunities
  • Engage in activities/Provide roles

Challenging Behaviors Associated with Dementia
1. Wandering
2. Repetitive Question Asking
3. Decreased Intake
4. Medication Adherence

Challenging Behavior Brainstorm

1. Wandering
What strategies have you used or seen work for this common challenging behavior??

Challenging Behavior Brainstorm

2. Repetitive Question Asking
What strategies have you used or seen work for this common challenging behavior??

Challenging Behavior Brainstorm

3. Decreased Intake
What strategies have you used or seen work for this common challenging behavior??
Case Study: Decreased Intake

- 82 year-old female
- Dementia; 8 MMSE
- Seen by speech therapy for assistance with self-feeding
- **Example Goal:** ‘R’ will consistently respond to cue to recall presence of food tray and initiate self-feeding 80% of trials.

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**Challenging Behavior Brainstorm**

4. **Medication Adherence**

What strategies have you used or seen work for this common challenging behavior??

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**Low Vision Issues**

- Many older adults encounter difficulties with vision (glaucoma, macular degeneration, cataracts, etc.)
- Must create therapy activities & instructions that are visible & clear for the client
- May need to make recommendations to adapt environment to encourage communication, engagement, & enhancement of oral intake

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**Case Study Video Example: Decreased Intake**

**GOAL:** Remembering to place pills on a pill template every Sunday evening.

**PROMPT:** Trainer asks, “What do you do every Sunday?”

**RESPONSE:** Participant responds, “I place my pills on my chart.”

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**Low Vision Issues**

- **Keep in Mind:**
  - Patients with low vision need well lit areas to read & eat. Position clients near natural light (window) if possible or use a full spectrum light (Tensor light) to flood area where they will be focusing.
  - Use primary colors and high contrast materials
    - Work print on white background (or pastel colors)
    - Reds, blues, greens easiest to discern
    - Use tactile materials (sandpaper, puffy paint)
    - Use non-slip materials to reduce errors and embarrassment
    - Think high contrast when it comes to food and plate and utensils
    - Make sure print is large enough to read easily (Reading Test)
    - Find and utilize resources:
      - Local Sight Centers
Can you go
We are here
Where is it
One and only
Not now

Vision Test Documentation Form

<table>
<thead>
<tr>
<th>CLIENT: ___________________</th>
<th>UNIT: ___________________</th>
</tr>
</thead>
</table>

INSTRUCTIONS: **STOP** when the person makes ANY mistake.

- We are trying to find out how big to print words so people can read them easily. Would you please help us by reading this first sentence **[POINT to “Can you go”]** out loud?
- (Client reads sentence).
- Thank you!  Please read the next sentence **[Point to “We are here.”]**.
- (Client reads).
- **Now this one** **[Point to “Where is it?”]**.
- (Client reads).
- **How about this one?** **[Point to “One and only.”]**
- (Client reads.)
- **And this one.** **[Point to “Not now.”]**
- (Client reads.)
- Thank you so much for helping us.

Please indicate the smallest size lettering that the client was able to read by placing a check mark (✓) next to the sentences read correctly.

- □ 72 point (Can you go)
- □ 48 point (We are here)
- □ 36 point (Where is it)
- □ 24 point (One and only)
- □ 16 point (Not now)

Vision test results:____________________________________

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Evidence-Based Treatment:
Montessori & Spaced Retrieval

Montessori

- Montessori-Based Programming
  - Programming method that use Montessori educational principles to provide constructive engagement, meaningful activity, and practice of skills to older adults.
  - Uses principles from the Montessori classroom to help older adults maintain independence and learn new skills.
  - Camp and other researchers have documented the use of this programming method with persons with Alzheimer’s Disease and have found that it increases overall participation in activities, as well as rates high in staff satisfaction (Camp, 2002; Skrajner, 2007).
  - Therapists can use these methods to address goals in treatment.

He who is served is limited in his independence.

- Maria Montessori

Who was Montessori?

- Maria Montessori
  - (1870-1952)

Who was Montessori?

Montessori worked with underprivileged children thought by some to be “insane”
Who was Montessori?

– The Key to a Better Life For Children:
  • Education
  • Active roll in the classroom
  • Proper environment (Children’s Houses)

Montessori-Based Dementia Programming®

Method of CREATING and PRESENTING activities based upon models of learning and rehabilitation

Montessori-Based Dementia Programming®

GOAL
To create persons who are as independent as possible, able to make choices, and who are treated with respect and dignity

Video Example of Montessori Programming

Key Montessori Principles

Montessori-Based Activities Should:
  • Consist of materials that are aesthetically pleasing and are taken from the everyday environment
  • Use external cues/templates
  • Consist of materials are free of unimportant letters, numbers, words, or markings
  • Be placed in a single container or on a single tray
  • Be an error-free source of success for people

Key Montessori Principles

Montessori-Based Activities Should:
  • Have a clear objective that is meaningful to the person
  • Begin with an invitation
  • Be demonstrated first, at a slow pace with as little vocalization as possible
  • Be broken down into their component parts and practiced
  • Have closure, ending with asking the person if they enjoyed the activity and if they would like to participate in it again sometime
Five Classes of Montessori-Based Activities

- Activities of Daily Living
- Sensorial Experience
- Cognitive Stimulation
- Motor Activities
- Group Activities

Montessori-Based Dementia Programming

- Categorization
- Word finding
- Reminiscence
  - Access long-term memory
  - Stimulate language usage
- Reading
- Using cues-verbal and visual

Treatment: Montessori

- Materials are taken from the everyday environment (familiarity)
- Materials are designed to promote independence in daily living and positive engagement
- Each activity is presented at its simplest level. Each activity that follows builds upon the previous activity.

Treatment: Montessori

- Slow down your movements
- Match your speed to the person with dementia
- LET GO of idea that an activity has to be done the “right” way
  - Goal is engagement & stimulation
  - Encourage reminiscence
  - Activities should be an error-free source of success for people

Treatment

- More Goal and Activity Examples:
  - Goal: Recalling family member’s names to increase communication and socialization in visits
    - Obtain family pictures and have client assist you in cutting and gluing them to “flash cards” with their names for face/name recognition practice and matching.

Reading Roundtable

Emily
John

They Came from Mars!
Memory Squared

Video Example

Spaced Retrieval

- Spaced Retrieval (SR)
  - Technique used to help persons with cognitive impairments recall important information over progressively longer intervals of time.
  - First used to address face-name learning in non-impaired individuals.
  - Has been used successfully with patients with Alzheimer's Disease, Traumatic Brain Injury, Parkinson's Disease, and Dementia related to HIV (Bourgeois et al., 2001; Camp, et al., 2008; Neundorfer, et al., 2004; Malone et al., 2007).
  - Is an effective tool that therapists can use to help clients reach their goals in rehab therapy and is billable and reimbursable.
  - Takes advantage of the procedural memory system and is success-based.
Spaced Retrieval Screen

Treatment: Spaced Retrieval

- Goal: “Client will recall location of daily schedule to complete ADL’s independently & improve participation in meals and with peers 90% of trials.”
  - Question: “Where should you look to find your daily schedule?”
  - Answer: “Look at my walker”

Problem Behaviors with SR Solutions: Prompt Question/Answer Examples

- Disorientation
  - “Where do you live?” (Answer: Name of Facility)
  - “What is your room number?” (Answer: Room #)
  - “What is your address?” (Answer: Client’s address)

- Repetitive Questioning
  - Dependent upon question being asked

Treatment: SR

- Trial 1 (0 Seconds): Client Responds CORRECTLY
- Trial 2 (10 Seconds): Client Responds CORRECTLY
- Trial 3 (30 Seconds): Client Responds CORRECTLY
- Trial 4 (1 Minute): Client Responds INCORRECTLY
  - Therapist provides client with correct response (“Look at my walker”), asks the client the prompt question again, allows the client to respond, and returns to the interval at which the client was last successful.
- Trial 5 (30 Seconds): Client Responds CORRECTLY
- Trial 5 (1 Minute): Client Responds CORRECTLY
  - Client continues session; Therapist then probes through other therapy activities to see if carryover of skill is occurring.

Problem Behaviors with SR Solutions: Prompt Question/Answer Examples

- Naming
  - “If you don’t know the name of something, what should you do?” (Answer: Describe it)
  - What is your husband/wife/son’s name? (Answer: Target name)
  - Who runs the activities here? (Answer: Staff member’s name)

- Disengagement
  - What can you read to remind you of your family? (Answer: “Read my memory book”)
  - What can you check to see what is planned for the day? (Answer: “Activity Schedule”)
  - What can you look at to find something to do? (Answer: “My list of activities”)

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SR Case Study One

- **Goal:** ‘R’ will recall strategy to improve safety when going from stand to sit position to improve safety and decrease fall risk at the initial trial of 3 consecutive therapy sessions using spaced-retrieval.
  - Question: “What should you do before you sit down?”
  - Answer: “Reach for the arms of the chair”

Treatment: SR

- SR Case Study 2
- 90 year-old female; 12/30 MMSE
- Alzheimer's Disease; CHF
- Goal areas: disorientation, anomia, executive function
- Goal: “Client will demonstrate strategy of describing items when unable to directly name them in order to increase communication of wants and needs to staff and family 80% of trials.
  - Prompt Question: “If you don’t know the name of something, what should you do?”
  - Response: “Describe it.”

Spaced Retrieval

- Goal possibilities are endless
- SR goals are NOT written any differently than other goals.

**FUNCTIONAL GOAL = SR GOAL**

Spaced Retrieval Video Example

Case Study 1: Video Clip

Spaced Retrieval

- Measurement of goal attainment can be by percentage (“80% of time”) or by recalling and demonstrating target response for a set number of sessions (3 sessions recommended) depending on the type of goal.
  - “Client will recall strategy of inhaling prior to speaking in order to demonstrate appropriate vocal volume during 80% of structured sentence production”
  - OR
  - “Client will demonstrate strategy of locking wheel chair brakes prior to standing to increase safety at the beginning of 3 consecutive therapy sessions using SR”
Spaced Retrieval

- SR is considered to be a MODALITY or APPROACH that therapists may use to help clients reach their goals.
- SR does not fit one particular diagnosis category
  - Use the ICD 9 Code that corresponds to the goal area you are addressing
  - Use SR to teach compensatory swallowing strategies = Use the ICD code for Dysphagia

Building A Caseload Using SR

- How long do SR sessions generally last and how often should they occur?
  - The length and frequency of SR treatment sessions is dependent on many factors
  - There is no set standard time limit or frequency of sessions that with SR treatment.
  - Most SR sessions are between 30 or 45 minutes long.
  - In general, the more often a person is seen for SR the more quickly he/she will attain SR goals.

Using What You’ve Learned

Functional Goal Setting & Writing

- Case Study
  - 82 year-old male; Dementia, CHF, Asthma; Diabetes; Former Musician; Wife is deceased; Children live out of town
  - Assessment Results: MMSE : 13/30; able to read 48 pt. sized Arial font; Client passed Spaced Retrieval Screen

- Base goals on findings of evaluation, client interviews, & staff/family input
- Must be individualized, functional, and measureable
- Must show that goal is appropriate for skilled services of SLP
- Patient history and level of functioning should warrant goal being addressed
- Goals should utilize “evidence-based” and “best practices” for treatment
- Explain “why” the goal is being addressed within the goal
  - “Client will recall and demonstrate use of chin tuck during swallowing 80% of trials in order to decrease risk of aspiration”
Functional Goal Setting & Writing

**COGNITION:**
- Client will navigate path to room by using landmarks independently to reduce wandering and increase safety 85% of trials.
- Client will correctly recall names of family members to increase communication and socialization during visits 80% of trials.
- Client will use a calendar to orient self to date, time, and daily activities to decrease disorientation & increase attendance and participation in facility activities 90% of trials.
- Client will utilize personal list of leisure activities to constructively engage self to prevent wandering and agitation 80% of trials.
- Client will correctly match names with peers on unit to promote socialization and interaction during meals 80% of trials.
- Client will recall strategy to name items through description 90% of trials.

**SWALLOWING:**
- Client will recall strategy of using chin tuck during meals to prevent aspiration 90% of trials.
- Client will recall strategy of clearing pocketed food in buccal cavity to prevent aspiration 90% of trials.
- Client will recall strategy of alternating solids and liquids during meals to decrease risk of aspiration 80% of trials.
- Client will utilize strategy of supraglottic swallow during meals to decrease risk of aspiration 80% of trials.

**VOICE/SPEECH:**
- Client will recall strategy of taking deeper breaths prior to speaking to promote increased volume and sub-glottal pressure and increase communication 90% of trials.
- Client will recall proper placement of articulators to produce alveolar sounds and increase communication abilities and intelligibility in conversation 80% of trials.
- Client will utilize strategy to use optimal vocal register to prevent the recurrence of vocal polyps 80% of trials.

**Avoiding Appeals**
- Following the aforementioned guidelines, you should not experience a denial of your claim.
- If, however, you are denied, be sure to:
  - Provide appropriate documentation where needed (explain rationale for goal; why and how it is being addressed and cite why client is likely to benefit from treatment)
  - Further explain necessity of the need for the skilled service
  - Provide citations of treatment intervention, Medicare guidelines, etc. if needed

2001 CMS Program Memorandum “Medical Review of Services for Patients with Dementia”

**Goal must be meaningful to the client**
- Activities to meet goal must be interesting, match abilities, and be success-oriented
- Use terminology that the client, staff, and family can understand
  - Example: Ask client what they would call a “Memory Book” before terming it that; Use client response to work on goal, increasing the likelihood they will remember and use it.
- Circumvent deficits
  - Work around areas of weakness
    - Example: Dementia
      - Inattention may lead to client forgetting what they are working on in treatment and why. Remind them throughout session or write down treatment activities so he/she knows what to expect and when they will be finished.

**Client Input:** Client wants to do more “on his own” and doesn’t enjoy being around “all of the sick people”. Feels “bored” and misses his family and old way of life.

**Staff Input:** ‘R’ found napping in other residents’ rooms; often leaves cane in room; tends to take large bites of food when eating, leading to choking; wears cologne, sometimes in “excessive amounts”

**Family Input:** Satisfied with care; would like a way to communicate with their father and update him on family events beyond talking on the phone
Functional Goal Setting & Writing
• Where should we start?
  • Evaluate assessment results, clients strengths/weaknesses, staff and family input
• Which areas warrant the most need? Prioritize!
  • Safety
  • Disorientation
  • Communication; Socialization
• Which areas are most effectively treated by a skilled service?
  • Forgetting cane when walking
  • Taking too large of bites during meals
  • Addressing disorientation to help client locate room

Goal Setting & Writing
• Keep in mind...BEHAVIOR IS NEVER RANDOM!
• May discover reasons for behavior by:
  – Observing the client
  – Tracking incidence of behavior (are there triggers or patterns?)
  – Talking with staff/family
  – Asking the client directly!

Functional Goal Setting & Writing
• Safety goals are client’s highest priority for treatment
  – Once we understand “why” the client is exhibiting the behavior, we can set a realistic and more effective goal to treat the problem.
  • Swallowing:
    – Problem: Client takes too large of bites
    – Why: Client’s tray was taken many times before he was finished, leading him to eat more rapidly
    – Strategy: Teach client to look at visual cue placed near tray that reads “Take your time and enjoy your meal. No one will take your tray until you are done. Take small bites”
    – Goal: “Client will recall and demonstrate ability to recall strategy of taking smaller bites during meals 90% of trials using a visual cue.”

Functional Goal Setting & Writing
– Always ask the question “Why is this happening?” in order to get to the root of the issue.
  • Are repetitive questions being asked because client is seeking information (actual answer to question) or seeking attention?
  • Is the client wandering because they do not know where their room is or because they are seeking social contact, attention, etc.?
  • SLP’s can target behavioral challenges in treatment as long as the intervention is evidenced-based, functional, and warrants the expertise of the therapist. SLP can also assist in making behavioral intervention recommendations to staff and family to target behaviors

Goal Setting & Writing
• Case Study: Behavioral Challenges
  – What are some possible reasons the following behaviors are occurring?
    • Napping in other residents’ rooms?
    • Taking too large of bites of food?
    • Forgetting cane?
    • Wearing too much cologne?
  – Also important to analyze: “Who owns the problem?”
    • Is it a legitimate safety or communication issue that needs to be addressed in treatment?
    • Is the “problem” more for staff and family than for the actual resident?

Functional Goal Setting & Writing
• Remembering Cane
  – Problem: Client is unsafe to walk without cane; high fall risk
  – Why? Client not used to having to use cane to walk safely; does not fully understand why he needs the cane & therefore chooses not to use it
  – Strategy: Educate client on why he needs the cane; write down reasons, biggest being to stay safe and not fall; choose area with client to keep cane so he sees it and remembers it; use Spaced Retrieval technique to teach him to remember the cane; instruct staff to offer LOTS of positive reinforcement when he uses the cane to encourage its use
  – Goal: “Client will recall and demonstrate use of cane to remain safe during walking and decrease fall risk 90% of trials.”

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Treatment

• Case study client: Treatment session focused on remembering to use cane
  – Treatment session in client’s room since this is where he forgets to take his cane with him
  – Begin by stating to client that you are working together to keep him safe by remembering cane
  – Ask client what he calls the cane. May call it a “walking stick”, etc. Use client response to practice goal
  – Write down session activities and mark off when you complete each one.

Goal Setting & Writing

• Locating Room
  – Problem: Client is disrupting other residents; becomes disoriented and may end up in unsafe areas
  – Why? Client is napping in other rooms because he cannot locate his own consistently; also enjoys the social contact and attention he receives when does this
  – Strategy: Teach client to look for landmarks to locate room; use meaningful cues (music note on door, since client was a musician); PRACTICE locating room using landmarks starting from different locations on unit; find activities he enjoys and increase involvement to provide social contact & attention.
  – Goal: “Client will learn landmarks in unit environment in order to locate room independently and decrease wandering into unsafe areas 80% of trials.”

Case Study

• 90 year-old female
• Dementia, Parkinson’s Disease; Right Foot amputation; Former artist
• Loves children (used to teach art to elementary school children)
• 10/30 on MMSE; Passed SR Screen

Case Study

• Where should we start?
• What are the priority treatment areas?
• How should we address these goals?
“We take note of all the details of a disease and yet make no account of the marvels of health.”
- Maria Montessori

Thank You!
For more information, please contact
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References

- American Speech and Hearing Association. “Getting Started in Long-Term Care” Available at http://www.asha.org/members/slp/healthcare/start_long.htm