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Innovations in Geriatric Care Virtual Conference

Guest Editor: Kathleen Weissberg, OTD, OTR/L

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Innovations in Geriatric Care:

Multisensory Environments; A Non-Pharmacological Intervention for Managing Behaviors in Clients with Dementia (Day 3)

Presented by: Dr. Jennifer E. Lape, OTD, OTR/L

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Learning Outcomes

1. Verbalize the effectiveness of multisensory environments in dementia care, including the impact to patients, caregivers, and practitioners.
2. List the steps required to use a multisensory environment with a client.
3. Complete appropriate documentation when using a multisensory environment, including goal writing and session notes.

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Impact of Dementia

- An estimated 5.7 million Americans have dementia; may increase to 14 million by 2050 (Alzheimer's Association, 2018).
- Alzheimer's disease is the 6th leading cause of death in the U.S. (Alzheimer's Association, 2018).
- 49% of those who care for people with dementia report declines in their own health, as compared to 35% of caregivers who care for those without dementia (Alzheimer's Association, 2018).
- 50.4% of nursing home residents have some form of dementia (CDC, 2016).

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Impact of Dementia

- One of most common symptoms are mood & behavior changes (agitation, lethargy, wandering, etc.).
- Cost of managing the disease in 2018 is ~ $277 billion per year, with increase to 1.1 trillion projected by 2050 (Alzheimer's Association, 2018).
- Typical management includes restraints, medications, behavior modification techniques.
- Lack of awareness of the role of the sensory system in dementia patients.

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Dunn's Model of Sensory Processing (1997)

- Neurological Thresholds
  - High threshold (more input necessary to notice)
  - Low threshold (less input necessary to notice)
- Self-regulation
  - Passive (just let input happen & reacts later)
  - Active (actively try to control quantity & type of input)
- Remember that both neurological thresholds & self-regulation are on a continuum.

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Behavioral Symptoms in Dementia

- If not enough stimulation: (higher thresholds)
  - Passively managing: Could appear lethargic, fatigued, increased duration of sleep, less engagement in functional activities
  - Actively managing: Repetitive behaviors, rocking, wandering, touching everything & everyone, preference for conversation, music, lots of activity
- If too much stimulation: (lower thresholds)
  - Passively managing: Could appear overwhelmed, picky eaters, easily distracted, vocal about dislikes
  - Actively managing: Wandering or exiting seeking (to get away from stimuli), refusals of care, stubborn, can become aggressive if overwhelmed, content to be alone

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What is a Multisensory Environment (MSE)?

- Common terms:
  - MSE (multi-sensory environments)
  - Snoezelen: Netherlands in 1970's; comes from Dutch words for "sniffing" and "dozing".
  - SI

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What is a Multisensory Environment (MSE)?

- "Multisensory stimulation incorporates the use of tactile, visual, auditory, olfactory, and gustatory sensory pathways, along with movement, to help the individual interpret his or her environment" (Lape, 2009).
- The goal is to "stimulate the primary senses without the need for intellectual activity in an atmosphere of trust and relaxation. It is a failure free approach as there is no pressure to achieve" (Burns, Cox, & Plat, 2000, p. 120).

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Research indicates MSE can:

- Decrease negative behaviors, anxiety, & pain
- Increase positive behaviors
- Increase spontaneity, intelligible speech, & recall
- Increase attention & concentration
- Decrease wandering, boredom, & lethargy
- Be as effective or more effective than alternatives (medication, relaxation, reminiscence, activities, etc.)
- Can improve client-caregiver relationships

**See reference list for full citations.

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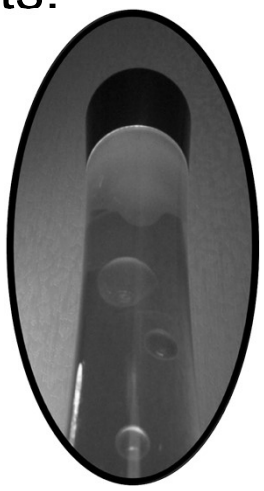
Research also supports:

- Session Length 30-45 minutes 3x/week
- Staff behaviors often the cause of resident behaviors
- Impact of one-to-one sensory experiences
- Positive impact on staff; shift from task-oriented to resident-oriented care
- Positive impact on families & caregivers, other healthcare professionals, & administration



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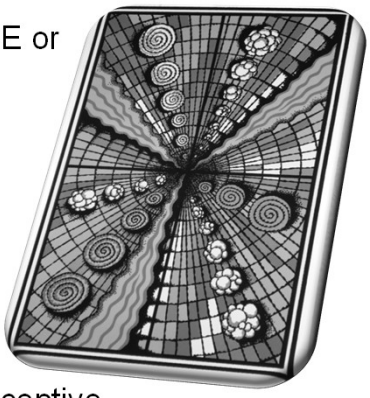
Steps for Developing a MSE

1. Gather sensory items (for MSE or mobile cart).

   Items included to address:

   - Vision
   - Hearing
   - Taste
   - Touch
   - Smell
   - Vestibular & Proprioceptive Systems



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Steps for Developing a MSE

2. Educate/collaborate with others on how OT can use this approach.

Suggestions:

- Use a sensory inventory to discuss sensory processing.
- Experience the room & sensory things.
- Discuss referrals, logistics.
- Make it FUN!!

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Steps for Developing a MSE

3. Conduct one-to-one sensory sessions, acting in the role of facilitator.
   - Remember there are NO goals to achieve (failure-free approach).
   - Don't forget the role you could play in the behaviors of your patients. (Examples)
   - What to do with the equipment/demonstration.
   - Safety-ensure basic needs are met.

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Assessing & Documenting

- Complete sensory inventories on identified candidates (to tailor experiences. i.e. client-centered approach).
  - Get info from family/caregivers/client.
  - What sensations do they prefer? Which are they over or under responsive to?
  - Never take a client into the environment if you have not assessed his/her preferences first.

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Establishing Measurable Goals-Examples

- Demonstrate decreased agitated behaviors, via use of sensory techniques, as evidenced by less staff reports of behaviors and at least 10 point decrease on ABS.
- Staff/resident to independently incorporate sensory techniques into daily routines to manage negative or agitated behaviors.
- Demonstrate decreased anxiety via use of sensory techniques in order to remain calm throughout completion of ADL.

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Establishing Measurable Goals-Examples

- Decrease pain to 5/10 via sensory techniques, to increase participation in ADL's, weight-bearing activities, etc.
- Increase tolerance to ROM of the affected upper extremity or increase tolerance of right resting hand splint to 1 hour, via use of sensory techniques for relaxation and comfort.
- **Think about sensory-based treatments as a modality!**

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Documentation-Objectively Measuring Behaviors

- Agitated Behavior Scale
- Look at incident reports
- Frequent & Duration of actual behaviors
- Administration of PRN medications for behaviors

Agitated Behavior Scale

- 14 Behaviors are rated on 4 pt. Likert Scale.
- 1=absence of behaviors (No behaviors would be score of 14).
- 2=behaviors present to a slight degree
- 3=behaviors present to a moderate degree
- 4=behaviors present to an extreme degree (Severe behaviors in all areas would be a score of 56).

(Bognar, 2006; Bognar, Corrigan, Bode, & Heinemann, 2000)

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Documentation Narratives

- What should you record during the session?
  - Who is present
  - Time of day/duration
  - Body position
  - Verbalizations/Subjective
  - Preferences for equipment
  - Dislikes or fear of equipment
  - Facial expressions
  - Functional abilities/engagement

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Safety & Contraindications

- Ensure you've completed an individualized inventory on a client before attempting to use this approach. (Don't turn on or provide access to ALL equipment in the space initially).
- Infection control: ensure items in the room can be cleaned/laundered
- If in a facility, typically all rugs, draperies, & furniture must be fire retardant, & electrical items should be inspected
- Contraindications for use of some items related to: seizures, allergies, cancer, respiratory precautions, & altered diets

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Other Important Considerations

- Importance of individualized one-on-one sessions
- Timing of sessions
- Causal factors
- Relaxation of the mind, body, & spirit
- Alertness & engagement
- Carryover of effects

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MSE Application by PT/SLP

- Can be used to prep/focus for PT/SLP interventions
- Can increase attention, minimize distractions
- Can help remove barriers associated with unmet sensory needs to maximize performance in other areas.

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Conclusions

- OT's role in MSE is to assess a client's sensory preferences, determine best set-up of the room that client, & train caregivers/other health professionals for carry over
- Supports the OT Practice Framework's goal of engagement (AOTA, 2014).
- Addresses sensory function (client factor).
- Supports Vision 2025 via use of evidence-based, client-centered, & cost-effective approaches (AOTA, 2017).
- Can increase QOL for clients with dementia.
- Can impact facility outcomes & quality care measures.

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Questions?

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Mon 2/18	Trauma-Informed Care: What It Is and Why It's Important Kathleen Weissberg OTD, OTR/L
Tues 2/19	Human Trafficking: Identification and Prevention Kathleen Weissberg OTD, OTR/L
Wed 2/20	Multisensory Environments: A Non-Pharmacological Intervention for Managing Behaviors in Clients with Dementia Jennifer Lape OTD, OTR/L
Thurs 2/21	Evidence-Based Interventions for Falls Holly Hester PT, DPT, CHC
Fri 2/22	Sleep and the Challenge of Aging Teresa Fair-Field OTD, OTR/L