Sensory Issues with Dementia – Practical Treatment Interventions

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Course Objectives

- Understanding role of SLP in treating patient with Dementia
- Identification of triggers of sensory impairments warranting skilled intervention
- Assessment of sensory impairments during early, middle and late stages of Dementia
- Development of treatment approaches during each stage of Dementia focused around targeting key sensory systems
- Understanding key elements of documentation which support medical necessity and skilled level of care
- Discussion of how to document the analysis and adjustment throughout the course of intervention to support that skills of a therapist are reasonable and necessary

Overview of Dementia

- Dementia is a general term for a decline in mental ability severe enough to interfere in daily life
- Dementia is not a specific disease but is an overall term that describes a wide range of symptoms
- Dementia is NOT a normal process of aging, therefore terms like senility and senile dementia are no longer widely used
- Alzheimer’s disease is the most common type of dementia and accounts for 60-80% of cases
- Vascular dementia, which occurs after stroke, is the second most common type
- Most dementias are progressive in nature, and irreversible

Alzheimer’s Association, 2014 (www.alz.org)
Overview of Dementia

• Symptoms of Dementia can vary greatly

• At least two of the following core mental functions must be significantly impaired to be considered dementia:
  • Memory
  • Communication and language
  • Ability to focus and pay attention
  • Reasoning and judgment
  • Visual perception

Alzheimer’s Association, 2014 (www.alz.org)

Role of Speech Language Pathologist

Of the core mental functions mentioned in the definition of dementia on the previous slide, which one(s) are within scope of SLP?

• Memory
• Communication and language
• Ability to focus and pay attention
• Reasoning and judgment
• Visual perception

ASHA Position Statement – Cognitive Communication

It is ASHA’s position that speech-language pathologists play a primary role in the screening, assessment, diagnosis, and treatment of infants, children, adolescents, and adults with cognitive-communication disorders. This position statement defines the roles of speech-language pathologists in the evaluation and management of individuals with communication disorders associated with cognitive impairments and clarifies the scope and rationale for these services.

Cognitive-communication disorders encompass difficulty with any aspect of communication that is affected by disruption of cognition. Communication may be verbal or nonverbal and includes listening, speaking, gesturing, reading, and writing in all domains of language (phonologic, morphologic, syntactic, semantic, and pragmatic). Cognition includes cognitive processes and systems (e.g., attention, perception, memory, organization, executive function). Areas of function affected by cognitive impairments include behavioral self-regulation, social interaction, activities of daily living, learning and academic performance, and vocational performance.
ASHA Guidelines for Dysphagia with Dementia

Individuals progressing through different stages of dementia may demonstrate difficulty feeding and swallowing. For example, individuals with moderately severe cognitive decline often demonstrate difficulty using a knife; individuals with severe cognitive decline may demonstrate difficulties discriminating between utensils; and individuals with very severe cognitive decline may be easily overwhelmed and require cues to locate food on the plate and to swallow (Voyzey, 2010). Swallowing function may also be affected by reduced muscle strength and coordination. Once appropriate feeding and swallowing strategies, postures, and consistencies have been identified, the clinician can train caregivers to provide feeding support and cuing as appropriate.

http://www.asha.org/PRPSpecificTopic.aspx?folderid=858935289&section=Treatment

Overview of Sensory integration/Processing

Sensory integration/processing is the organizing, processing, and interpreting of information from movement, touch, sound, visual input, taste and gravity that allows us to interact with our world.

Basic senses: Sight, hearing, taste, touch, smell
Hidden senses: proprioception, vestibular
Building blocks of sensory integration: All senses form a base of a triangle, with appropriate behaviors at the top of the triangle. In theory the sensory needs at the base must be met first before expecting the socially acceptable behaviors to be present.

Power houses of sensory: Deep touch, proprioception, and vestibular

Winnie Dunn Model of Sensory Processing
Terminology SLP May Be Familiar With

- **Low Registration** – under responsive, decreased awareness
- **Sensory Avoiding** – refusal, hypersensitive
- **Sensory Seeking** – over responsive, inappropriate self stimulation
- **Sensory Sensitive** – over responsive, catastrophic responses

Evaluation of Sensory Needs

- Information for patient sensory needs is best achieved through observation of their responses to stimuli in the environment.
- Sensory profile - This is helpful when the patient has 4.0 ACL and above, otherwise information should be gathered from the family so more reliable. Most sensory profiles were developed for children.
- With Dementia, the message of the five senses sent to the brain are not interpreted properly or missed all together.

Observations During Evaluation/Interactions

(Revised from Stock-Kranowitz, C (1998) The Out of Sync Child)

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<tr>
<th>UnderResponsiveness</th>
<th>OverResponsiveness</th>
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<tr>
<td><strong>Touch</strong> - unaware pain, temperature or how objects feel, rub against furniturewalls, bump into others <strong>Movement</strong> - crave fast and spinning without getting dizzy, move or fidget constantly. <strong>Body position</strong> - may slump/slouch, action appear clumsy or inaccurate, bump into objects, twiddle fingers. <strong>Sight</strong> - even with good acuity may touch everything to learn about if, miss important visual cues, miss written directions. <strong>Sound</strong> - ignore voices, difficulty following verbal directions, speak in booming voice. <strong>Smell</strong> - ignore unpleasant odors, may sniff food/people/objects. <strong>Taste</strong> - licks or taste inedible objects, may like spicy or hot foods.</td>
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<td><strong>Touch</strong> - avoids touching or being touched by objects/people, upset when get dirty, iritated by certain types clothing and food, dislikes unexpected light touch. <strong>Movement</strong> - avoids moving or being unexpectedly moved, insecure with gravity or anxious if tipped off balance, car sickness. <strong>Body position</strong> - may be rigid/tense/uncoordinated, avoids of activities requiring body awareness. <strong>Sight</strong> - becomes overexcited when too much to look at, may cover eyes, may have poor eye contact, overreact to bright lights, hyper vigilant. <strong>Sound</strong> - may cover ears, may complain about noise. <strong>Smell</strong> - may object to odors that other don't notice. <strong>Taste</strong> - strongly object to certain textures and temperatures of food or often gag when eating.</td>
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Creating a Sensory Profile
Sensory Issues with Dementia (a few examples--)

- Do not know the source of a sound
- Places dangerous or inappropriate items in the mouth
- Change in taste
- Difficulty distinguishing hot and cold, as well as colors
- Dresses inappropriately for the weather
- Does not notice smell of burning or smoke
- May not realize they have injured themselves
- Does not notice when food is spoiled
- Cannot recognize familiar faces or familiar objects
- Depth perception is impaired where they may perceive a rug has a hole in the floor

General Treatment Strategies

- Under-Responsive:
  - Safety issue with not noticing stimuli – find ways to make stimuli more salient
  - Usually high tolerance for different types of environments so capitalize on flexibility
  - Cues are essential strategy because it increases accessibility of salient and important information
  - Incorporate additional sensations into daily routines
  - What may be distracting to others, may help increase arousal and promote attention and therefore should be promoted in specific situations

- Over-Responsive:
  - Remove distracters and create organizational systems
  - When possible, give the person control over the environment when introducing sensory input, or introduce slowly with lower intensity at first
  - Other Considerations:
  - Develop coping mechanisms for managing uncomfortable situations
  - Educate caregivers so they understand and recognize triggers
  - Incorporate breaks during treatment sessions
### General Treatment Strategies by Impairment

**Oral Motor**
- Drink a milkshake
- Imitation of oral motor postures
- Hot/cold foods or liquids
- Various textures (chips, ice cream, peanut butter)
- Oral stim with nuk brush, cold spoon, and textured spoon
- Suck on hard candy or chewing gum
- Whistle while you work
- Singing
- Stimulate tastes such as sweet, salty, bitter, etc.

**Touch**
- Warm bath
- Massage
- Pet dog or cat
- Rice bins/different textured objects
- Shaving/pudding painting
- Cloth books

**Sight**
- Watch a fish tank, bird cage
- Lighting in room
- Amount of stimuli presented at one time
- Mirrors
- Family photos

**Auditory**
- Listen to classical music or rock and roll
- Amount of noise in environment
- Sing or talking to self
- Conversations

**Vestibular/Proprioceptive**
- Rock in rocking chair
- Rocking own body slightly
- Roll head and neck slowly
- Dance
- Hugs and tugs (see next slide)
Hugs and Tugs

Hugs and Tugs (developed by Kelli Olmsted MS, OTR/L and Brenda Meiron COTA/L) developed to provide quick proprioceptive input and deep pressure touch for sensory needs.

- Approach Resident in a quiet calm manner and ask “Can I give you a hug” Lean in and give resident an embrace with 10-12 quick pressure hugs, and state “Can you hug me”.
- Step back and state “You are going to feel a little pressure on your shoulders”, Open hands, and place on top of shoulders and press down 10-12x providing deep tactile pressure, bilaterally.
- Last step, inform resident, “I’m going to squeeze your arms or give your arm hugs” Stand in front of Resident and squeeze down length of both arms by cupping both hands working proximal to distal down the length of the arms.

Precautions: be aware and careful with painful and/or arthritic joints, this protocol is good for residents with poor attention to task, pacing, high level of anxiety. This is a great tool to place in a sensory diet and have staff complete.

Specific Treatment Approaches by Dementia Stage

Early Stage:
- May look normal but memory issues become apparent as communication interaction continues
- Can do ADLs with cues for safety
- Oriented to person, place and routine
- Concrete thinking
- May have difficulty with change
- Sensory issues may be minimal, however age related sensory changes could contribute to confusion

Specific Treatment Approaches by Dementia Stage

Cognitive Communication
- Teach compensatory strategies for memory and safety
- Train to detect salient features for orientation or safety
- Establish routine to improve active participation
- Alerting stimuli to improve attention
- Facilitate optimal communication of wants and needs

Swallowing
- Cues to check temperature
- Food preferences and taste assessment
- Teach compensatory strategies for safety
Specific Treatment Approaches by Dementia Stage

**Middle Stage**
- Oriented to person only
- Requires intermittent or constant cues
- Wandering is often exit seeking
- Cognitive processing time is slow, approximately 60 seconds
- Attention span about one minute
- Easily distracted
- Often have feeding difficulties and high risk for weight loss
- Manual actions

**Cognitive Communication**
- Reminiscent Activities for orientation and memory
- Manage anxiety and behaviors with cognitively stimulating activities
- Promote participation with engaging procedural memory
- Focus on attention span

**Swallowing**
- Foods on the go, finger foods
- Tactile or initiation cues, functional cues to continue
- May require diet modifications, taste and texture preferences

**Late Stage**
- Not oriented, “in their own world”
- Often have behaviors; repetitive actions
- Aimless wandering
- Striking out, resistance
- Limited communication to 1-2 word utterances
- Cognitive processing even longer, up to 90 seconds
- May not recognize common object
- More significant swallow issues, often unable to tolerate consistencies, clamp mouth shut or spit out food
- May self stimulate, even if harmful
Specific Treatment Approaches by Dementia Stage

- Best impact with sensory integration powerhouses such as deep pressure and proprioception
  - Chewy tubes
  - Rocking, rhythm, dancing
  - Singing
  - Weighted blankets

- Sometimes can use sensory deficits to improve safety...environmental cues to deter wandering into unsafe areas, distraction to de-escalate behavior, removal of unsafe objects from field of conscious awareness

Documentation Considerations

- Document the intensity and severity of behavior or associated problem, include triggers if known
- Document the skills of a therapist...what you did to facilitate improvement in function, NOT the task performed
- Determine discharge by consistency of response and outcome. Since staff carry over is necessary, you must know when can be carried out by non skilled persons
- Be specific in caregiver education, return demonstration is key
- Write a goal you will use right away!

Questions???