

# Making Sense out of all this Sensory

*Using a Multi-Sensory Approach to Activities  
to Enhance Clients Experiences*

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# Course objectives

## **Participant will be able to:**

1. Identify the seven sensory avenues that gives us information about our environment.
2. Identify changes in sensory experiences in normal aging and dementia.
3. Make informed purchasing decisions
4. Create a multi-sensory program
5. Identify signs and signals of sensory comfort or sensory discomfort during a sensory activity.

## **What is a Multi-Sensory Approach?**

### **What are the benefits of all the extra prep?**

A Multi-Sensory approach is utilizing more than one sensory pathway when engaging your clients in an activity with the goal of improving memory recall and well-being.

### ***Benefits of using a multi-sensory approach are numerous:***

- Attentiveness, focusing to task, general awareness and spontaneous movement.
  - Decreased anxiety and decreased “Sun Downing” behavior.
  - Increase in community among the clients.
  - Increase in appetite.
  - More spontaneous speech.
  - Relating to better to people.
  - Increased evidence or enjoyment, activity and alertness.
  - Less boredom/inactivity
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## **Introduction to Sensory Integration**

- We navigate our world using our sensory experiences to make judgements, decisions, create memories and “catalogue” our life experiences.
  - These systems are in constant communication with each other and send information to the brain; the brain sends the appropriate response, based on past memories
  - As children and throughout our entire life we are organizing and “cataloguing” information and creating memories
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## **Seven Sensory Avenues**

There are seven different sensory avenues that our bodies use to give us information about our world. We store our memories and information based on our sensory experiences.

1. Proprioception
2. Hearing
3. Vision
4. Vestibular
5. Smell
6. Taste
7. Touch

## **Too Much Sensory!**

Things to watch for:

- Increased agitation
- Closing eyes, fingers in ears
- Pulling hair or holding face
- Upset stomach
- Fatigue
- Leaves area
- Pushes hand away when touching
- Gags when tastes
- Complaining about noise, smell and others

## **Proprioception/Body Awareness**

- Proprioception is related to touch in the same way that taste and smell are linked.
- There are receptors in the joints that tell your body where it is in space.
- Proprioception is linked to touch by the skin receptors. This combination tells your body: "you are sitting" , "you are standing"

### **Benefits:**

- Increases general personal and environmental awareness.
- Increases communication and sense of community.
- Decreases agitation and anxiety.
- Improves sleep.
- Calming influence

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**Normal Aging:**

- Decline in joint motion in people between people who are 61-84 years old.
- Apprehension in the elderly in taking steps down, moving from one surface to another.

**Dementia**

- Normal aging occurs and is compounded with cognitive losses and language loss.
- Stroke and paralysis affect proprioception.
- Increase in fear of falling and movement

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**Proprioception- What to Do**

- Correcting posture during an activity. If you see an arm dangling, place it back on the W/C trough or lap



- The Double hug: you give a hug—the give a hug

- Weighted items or "heavy work"- engage your clients in wiping down tables, reaching, pressing anything that will move the joints and if you can add a little resistance
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## **Weighted blankets**

- I get A LOT of questions about weighted blankets.
  - Adding weight to the joints calms a person down, this technique has been successfully used in children with Autism and in the psychiatric population.
  - Blankets for the children can go from 1 pound to 10 pounds depending on child's weight.
  - Adult recommendations are weighted blankets should be 10% of the persons weight plus 1 or 2 pounds. (100-pound client:10+1= 11 pounds I think is too much!)
  - At this time, I cannot find any definitive articles on weighted blankets and dementia, though there is a lot of practical evidence.
  - **My advice: use caution, good sense and team work: If the blanket is too heavy and your client can't take it off it is a restraint.**
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## **Commercial Products:**

Things to press, squeeze, weighted lap blankets

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## **Hearing-**

- Sound comes into the ear and travels down the auditory canal.
- Vibrations are then picked up by the ear drum and transmitted to the three middle ear bones.
- The middle ear bones then transmit the vibrations to the membrane that is attached to the auditory nerve.
- That information gets sent to the brain and we recognize it as hearing.

## **Normal aging-**

- With normal aging, the ear drum gets thicker, less pliable and less sensitive to the sound vibrations coming in.
- The hairs and fluid inside the inner ear have also become thick and less responsive and sensitive to the incoming vibrations.
- In the USA 2/3 of the people who are 70 years old have some form of hearing loss.

## **Dementia**

- With certain types of dementia there are auditory hallucinations.
- Hearing loss may exacerbate dementia due to feelings of isolation and reduced cognitive stimulation.

## **Hearing-What to do**

- Make sure if there are hearing aids, that they are in, turned on and have a working battery.
- Speak from the front of the person.
- Small group discussions or activities are better than large group activities.
- If in a large group place the person in or near the front so they can see what is going on.
- Lower the pitch of your voice and think about using augmentation.
- Turn the "base" up and vibration to music or TV.

### **Commercial Products:**

YouTube: old TV commercials from the 1960's, sporting sounds, old songs with lyrics.

Free sound websites, Vibro-music, sound augmentation for phones and PCs

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### **Vision:**

- When you look at an image, light enters the eye through the pupil and strikes the lens.
- The lens bends the light, focusing it on the back of the eye - the retina.
- The light is converted into neural signals passed along the optic nerve to your brain which tells you what you are looking at.
- The oval shaped area in your eye that captures the details of the image is called the macula.

### **Normal Aging:**

- Need for glasses / magnification.
- Central vision loss (macular degeneration).
- Peripheral vision loss (glaucoma).
- Needing a brighter environment to read.

### **Dementia:**

- Right side preference or left neglect.
  - Not recognizing faces.
  - Peripheral vision loss not from glaucoma (loss can be as significant as less than 12").
  - Perceiving dark areas as holes / white as not there.
  - Hallucinations.
  - Not being able to tell the difference between red/orange or blue/green.
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## **Vision- What to do**

- Simplify visual fields
- Approach from the front not the side
- Place food or other items in all four visual quadrants
- Contrast is KEY!
- Give cues to help your clients recognize what they are seeing
- Use bright "highlighter colors"

## **Commercial Products for Vision**

Glow sticks, tubes with bubbles, fish tanks, glow balls

## **Vestibular/ Balance**

- This system is related to and influences the hearing and proprioception systems.
- Inside the inner ear are three semi-circular canals, they have hair and fluid in them.
- Movement in the canals sends information up to the brain and tells the brain where the body is.

## **Normal Aging**

- Reduction in hairs and fluid in the ear canals.
- The most common clue that there is an impairment is "I'm dizzy when I stand".
- 22% of adults between 65-69 report some form of dizziness.
- 40% of adults 80-84 report some form of dizziness.
- Falls are on the rise: 20-40% of adults 65 and older have fallen in their home.
- 67% of the elderly who fall and fracture a hip die within the year.

## **Dementia**

- Those with dementia have lack of eye movement which is decreased participation from the Visual system
- Less input from the visual system to maintain a correct balance/posture
- Dementia adds to a decreased awareness of ability to stabilize.
- Impulsivity and lack expressive language. Clients may want to stand up fast and spontaneous and may lose their balance.

## **Vestibular-What to do**

Be mindful of your clients, vestibular stimulation is fun and engaging, but there is a threshold for too much!

Get Moving- reaching up and down, moving the head and eyes,  
BEWARE OF THE DIZZIES!- upset stomach, flushing/blanching, blood pressure changes up or down, sweating

## **Vestibular Commercial products**

Gliders, rocking chairs, chair exercises, tapping a balloon with a fly swatter

## **Touch**

- When we touch something, the sensation is transmitted to the spinal cord and up to the brain. The impulses are returned to give us the correct response.
- The sense of touch makes you aware of temperature, vibration, body position, light touch, deep touch, rough, smooth, soft, plush, smooth, cool, warm, and pain.
- Touch can be calming or agitating.

## **Normal Aging**

- Sense of touch diminishes at or around age 50
- Skin injuries / scars
- Nutrition

- Medical issues like diabetes
  - Brian injury / stroke
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## **Dementia**

- All the normal aging factors compounded by decreased language.
- **Benefits** of therapeutic touch:
- Lowering heart rate, blood pressure, decreasing pain, increased eating.

## **Touch What to do**

- Ask first even if there is no response dignity is preserved.
- Offer a variety of textures and temperatures
- Assess your environment- too hot? Too cold?
- Touch can be calming – stoking, massage, gentle hugs
- Touch can be stressful- light tapping, too light a touch, too rough(fabrics)

***Make sure if you offer a heated item that the skin does not turn pink.***

## **Commercial Products- touch**

Weighted or stress balls, textured items, plush items

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## **Smell**

- Smell and taste are linked and work side by side.
- Molecules released by substances stimulate special cells in the nose, mouth and throat.

- These cells transmit impulses to the special areas of the brain to recognize smell and taste.
- Complex tastes like chocolate or coffee need the combination of the saliva to mix and combine with the odors - those molecules travel up to the nose.
- *A third type of cells in the nose and mouth are non-specialized and are stimulated by irritating scents like chlorine and onions.*

## **Normal Aging**

- Loss of smell is more common than loss of taste.
- Smell is typically most accurate between ages 30 – 60.
- After age 60 smell loss increases, which can impact safety (i.e. smelling gas).
- Ages 80 and above have 75% moderate to severe loss of smell
- Head cold/sinus issues can be issues

## **Dementia**

- 85% of patients with dementia (specifically AD) have decreased smell awareness.
- Decreased smell (items such as peanut butter) may be a link to detecting early onset AD.

## **Smell- What to do**

- Offer pleasant and irritating smells- offer them slowly, naming them as you do
- Permeate the room- crock pot, oil diffuser, aerosol sprays
- Diffuse concentrated scents

## **Commercial products**

Scented putty, aroma therapy, crock pot

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## **Taste**

- Taste cell react to food and drink
- These taste buds are located in the mouth and throat
- We have five basic taste sensations:
  - Sweet
  - Sour
  - Bitter
  - Salt
  - Savory-Uma-MSG
  - *Flavor is the combination of smell, taste buds, texture, and temperature.*

## **Normal Aging**

- At 50 we start to lose our taste bud acuity.
- We can still identify the five basic tastes.
- Common things that affect taste: medications, head-cold, allergies, smoking and dry mouth, infections and antibiotics, medications for Blood Pressure, Cholesterol and anxiety, vitamin deficiency

## **Dementia**

- Sweet is the taste that is craved most
- Recent studies have linked the lack of an ability to taste peanut butter with early onset of dementia.
- Complaints of not wanting to eat
- Prefer heavy flavored foods- sugar

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1. Title of Activity: Multi-sensory Baseball

2. Date of Activity: \_\_\_\_\_ 3. Time of Activity: 3-4p

The Activity Director's Office  
**New Activity Planning Sheet**

**4. Type of Activity:**

Small Group

Large Group - Broken Down in tables

Individual

**5. Intended Population:**

Male

Female

**Physical Status:**

Independent

Minimal assist

Complete assist

**Mental Status:**

Alert & oriented

Gently confused

Disoriented

**Age Appropriate:**

All - 70+

Under 60

Under 50

Under 40

Other \_\_\_\_\_

**6. Location needed (i.e. size appropriate)**

Large group area

Small group area

Quiet room

**7. Stimulation:**

Mental

Physical

Creative

Social

Multi Sensory

**8. Results Expected:**

Improve socialization

Improve mental health status

Boost morale

Improve physical health

Pride in creativity

↓ anxiety

↓ agitation

**9. Staffing needed:**

Activity Staff

Volunteers - ALWAYS/Visitors

**Other Departmental Assistance:**

Need	Date Note Sent	Response
Nursing swallowing Snack		
Dietary		
Social services		
Administration		
Housekeeping		
Maintenance		
Relax Joint limitations		

**10. Supplies Needed:**

PC with Speakers	Hot Packs/towels
Popcorn Popper	*Non-Alcoholic Beer
Baseball items	Soda
bean bags	Thickeners
tissue Paper	Fabrics - scarf
Putty	Ice Chips

**11. Pre-preparation:**

lookup YouTube organ/sounds

Make Dysphasia "Cracker Jacks"

Gather Items

**12. Steps for Doing the Activity**

Proprioception: "swing base ball bat", "the wave" "charge"

Hearing: YouTube organ music sounds Baseball Strike, crowd

Vestibular: tossing tissue paper or scarves in air

Vision: looking at items, cueing to look (left)

Touch: handling baseball items, fabrics, hot packs

Smell: Pop Corn Popper / \*Non Alcoholic Beer

Taste: "Cracker Jacks" Sodas + Non Alcoholic Beer

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