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Aging and Sensory Loss: Considerations for Direct Support Professionals

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This article emphasizes the importance of awareness and recognition of vision and hearing changes as we age, as well as the crucial role Direct Support Professionals (DSPs) play in supporting these changes for the people they support.

Do you know and understand the impact of aging on vision and hearing?

"Aging" is a developmental process that starts at birth and involves gradual changes in body structures and systems (Nochajski, S., 2000).

People with a developmental disability experience higher rates of frailty and earlier onset of aging. Researchers McKenzie, Ouellette-Kuntz, and Martin, (2017) found that the presence of frailty is three times higher among adults with intellectual and developmental disabilities (IDD). Their study recommends that frailty and aging should be monitored in ***all*** persons with IDD "beginning at **40 years of age**, and possibly earlier in some sub-groups (e.g., Down syndrome), given that they accumulate frailty deficits more quickly."

The World Health Organization (WHO) defines loss or impairment as "any temporary or permanent loss or abnormality of body structure or function, whether physiological or psychological." When aging affects the structure of the eyes or ears, this results in **sensory loss or impairment**.

According to a guide authored by Christel Galea and Mindy Ginsler in February 2020 for the Reena and Mary Centre Ontario, many people with developmental disabilities may experience early onset of vision and hearing loss. Alternately, people who live with a developmental disability and who also have hearing and vision loss can find their condition further complicated/exacerbated as they age.

Age-related sensory changes may be created by vision loss such as: age-related macular degeneration (AMD), glaucoma, and cataracts. These sensory changes may additionally be caused by

hearing loss such as presbycusis, which diminishes the hearing spectrum.

As Ruth, M.A. noted in the North Carolina Medical Journal, "Vision and hearing loss are particularly prominent in older adults. Vision loss negatively impacts a person's perception of the world, while hearing loss hinders communication and can lead to social isolation. Combined, these losses present significant challenges, compounding difficulties in older adults."

Dr. Y.J. Siewe, Health and Family Development Specialist, noted sensory changes often begin around age 50, with gradual declines in sensory function.

According to Dr. Wiliam F. Sullivan et al., sensory loss (vision and hearing) is more prevalent for adults with intellectual disabilities. Healthcare and social service providers sometimes overlook the aging process in this part of the population due to their younger chronological age.

Why is this knowledge important?

When sensory loss is recognized and diagnosed, appropriate actions—such as introducing assistive devices—can help maintain quality of life, effective communication, social connections, and safety.

Direct Support Professional should consider the following key considerations:

1. **Understanding underlying conditions:** Recognize the importance of understanding underlying conditions such as Down syndrome, autism, or CHARGE syndrome, as well as age-related changes.
2. **Recognizing dual sensory loss:** Be aware that people with existing sensory loss may experience further declines or additional sensory loss with aging, leading to vision and hearing loss combined. As an example, a person who is hard of hearing, and who relies on visual cues for communication may additionally experience a decline in their available vision due to cataract or age-related macular degeneration, which now makes communication and interaction difficult.
3. **Baseline assessments:** Track baseline assessments of vision and hearing, and perform ongoing monitoring to capture any changes. Early intervention in conditions through regular health checks and medical interventions as needed can help slow the progress of conditions such as cataract or glaucoma through early treatment.
4. **Individualized support plans:** DSPs can help through knowledge of the level and type of sensory loss so that they can adapt and enhance their support through individualized plans.
5. **Understanding medical conditions:** Be aware of age-related medical conditions such as diabetes that may potentially impact vision loss due to diabetic retinopathy.
6. **Genetic factors:** Understanding a person's genetic or family health history can support a proactive approach to sensory loss, such as increased vigilance for glaucoma if there is a family history. According to Dr. Chelsea Gerlitz, someone whose immediate family has glaucoma can have a four to nine times higher risk of developing the condition, and she encourages annual eye exams to identify early signs of glaucoma.

How can you consider the impact of aging, vision, and hearing changes for someone you support?

As a DSP, it is crucial to reflect and adapt your daily practices to meet the evolving needs of those you support, such as health support requirements, accessible environmental changes, and effective communication strategies.

Aging can bring about declining functioning and increased dependency. For older adults with IDD, this can include the stress of keeping up with others' expectations, experiencing losses, insecurity, and increased isolation, all of which negatively impact their health and well-being (Sullivan, W.F.).

Common Age-Related Conditions and Their Impact on Sensory Functions

Eye conditions and their impact on vision as per the National Institute of Aging and National Eye Institute

- **Presbyopia:** Reduced ability to see close or near objects clearly.
- **Cataracts:** Cloudy areas in the lens, leading to blurred vision, light sensitivity, and challenges with light levels.
- **Glaucoma:** Damage to the optic nerve, affecting peripheral (side) vision.
- **Age-related macular degeneration:** Degeneration of cells responsible for fine detail and color, leading to central vision loss.
- **Diabetic retinopathy:** Changes to blood vessels in the retina, which can cause vision loss.
- **Stroke:** Can affect visual pathways, leading to visual field loss, blurry vision, double vision, or reading difficulty.

Hearing conditions and their impact on hearing as per John Hopkins Health Conditions

- **Presbycusis:** Gradual hearing loss, typically beginning at 50-60 years old, impacting higher-pitched sounds.
- **Meniere's disease:** Inner ear problem starting between 40-60 years old, causing vertigo and hearing loss.

Proactive Steps for Support

There is no specific starting point for aging-related changes in people with IDD, but progression often starts earlier than in those without developmental or intellectual disabilities, sometimes as early as 40 years old. Proactive measures are essential to support individuals to live safely at home and in the community (also known as aging in place).

According to Dr. Chyrisse Heine, Speech Pathologist/Audiologist at La Trobe University, managing sensory loss requires assessments by professionals such as optometrists and audiologists, who can recommend appropriate plans, including the use of visual or hearing devices.

How can you enhance support practices for this unique aging population with sensory loss?

Be observant for changes: response/behaviour: Watch for changes in behaviour such as forgetfulness, confusion, and frustration. Hearing loss or a reduced ability to lip-read and

interpret facial expressions can lead to misunderstandings or missed parts of conversations (Dr. Chyrisse Heine).

1. **Body position & proximity:** When engaging in conversations or activities, individuals may sit closer to the TV, adjust their head positioning to optimize their visual field, or lean in to better hear and understand verbal communication.
2. **Routines & habits:** People may experience difficulties locating objects, such as during food preparation. Individuals may wear soiled or mismatched clothing and take longer to complete daily routines.
3. **Mobility, balance, & awareness:** People may hesitate or slow down when walking, often touching walls or furniture for guidance. Changes in terrain can lead to missteps.
4. **Coping in unfamiliar environments:** A person may need support to become more familiar with a new space and assistance to address challenges of moving safely within it.
5. **Social activities:** In busy or noisy environments, people may feel overwhelmed and avoid activities they previously enjoyed, or interactions with more than one person, such as socializing, bowling, or playing cards.

Key Considerations for Proactive, Responsive, and Flexible Approaches:

Consideration #1: Communication Considerations

- **Impact of sensory loss on communication:** Vision and/or hearing loss can significantly affect communication, both expressively (giving) and receptively (receiving). For example, a person with severe vision loss may struggle to perceive/understand non-verbal cues like facial expressions or gestures, while someone with hearing loss may have difficulty recognizing and locating the direction of sounds, impacting their ability to follow or contribute to conversations (Dr. Chyrisse Heine).
- **Dual sensory loss:** For those with both hearing and vision loss, communication challenges can be compounded. Misunderstandings, confusion, and frustration may increase, leading to a higher risk of social isolation (Dr. Chyrisse Heine).
- **Understanding residual hearing and vision:** It is essential to know the residual (usable) hearing and vision of the person. For instance, if a person has significant hearing loss in the right ear, you should position yourself on their left side during conversations. If the person has central vision loss due to age-related macular degeneration, position yourself to the side of the person where they can see you best for visual communication cues. Take into consideration the best distance for them within their field of vision.
- **Flexibility in communication methods:** Adapt communication methods to address sensory loss by using an Enriched Communication Approach (ECA) that layers expressive and receptive methods. This could include combining verbal dialogue with visual supports like pictures or schedules to reinforce communication. Visual supports such as checklists and reminders can also help people understand daily routines and activities (DeafBlind Ontario Services article in IJDSP November 2023 Volume 12 Issue 11).
- **Use of varied professionals:** For example, speech pathologists can develop strategies for improving speech perception and clarity, as well as recommend assistive devices and technology to support communication (Dr. Chyrisse Heine).
- **The *C*s of communication:** There are often ***clues*** that indicate a person's sensory loss is impacting an effective communication exchange. As an example, a nod of the head

does not necessarily mean the person understood the message. Ask varied questions to confirm the person's understanding. When sensory loss occurs, it is important to implement communication focused strategies. Use ***concise, clear***, and ***consistent*** communication methods to support effective dialogue. Provide the person with time to process information and respond. It may also be helpful to break down complex information into smaller, manageable parts.

- Recognize the importance of establishing and maintaining consistency in ***communication partners*** to build trusting relationships which is particularly important for people with developmental disabilities.
- **Age-related hearing loss:** Presbycusis, or age-related hearing loss involves degeneration of parts of the sound collection and processing structures in the inner year. This can affect the ability to hear higher-pitched, softer sounds, such as female or children's voices. Be mindful of the pitch and tone of speech, and note that increasing volume may not always improve communication and can sometimes be overwhelming.
- **Sign language considerations:** When using sign language, consider the speed of signing, the size of the available visual field, and minimize visual clutter and background noise (Johns Hopkins Medicine Health Conditions and Diseases).
- **Individualized communication plans:** Develop personalized communication plans tailored to each person's abilities and preferences (verbal, non-verbal, augmentative communication), such as using picture boards, communication devices, and/or sign language.
- **Respect for communication preferences:** Always respect the person's preferred communication methods and styles, which fosters independence and autonomy.

Consideration #2: Environmental Considerations

According to DeafBlind Ontario Services' Accessibility Guidelines for Sensory Loss, the following should be considered:

- **Assessing surroundings:** Evaluate home and community environments with sensory loss in mind. Adaptations and assistive devices can enhance independence and support aging in place.
- **Home modifications:** Modifications like installing ramps, grab bars, and wider doorways, and reducing clutter can improve safety and accessibility.
- **Lighting and colour contrast:** Use appropriate lighting and controllable options, like dimmer switches and horizontal blinds. Enhance visibility with good color contrast, such as using a white chopping board for red tomatoes, blue chopping board for mushrooms, white potatoes on a contrasting-coloured plate.
- **Labeling and accessibility:** Label items with large fonts or tactile markers, such as an elastic band around a can to differentiate between soup and vegetables.
- **Accessible technology:** Incorporate assistive technology, such as smart home devices (ring doorbell, voice-activated assistance, remote controls, medication dispensers) to help a person manage the environment independently.
- **Safety measures:** Install audible and visual alarms, smoke detectors, and wearable technology for fall alerts to provide peace of mind.
- **Social and recreational spaces:** Designate spaces for social interaction and recreational activities to promote engagement and mental well-being. Be mindful of auditory and visual clutter that could overwhelm individuals.

- **Outdoor accessibility:** Ensure outdoor spaces such as gardens or pathways are accessible and consider sensory gardens that engage touch, smell, and vibrant colors.

Consideration #3: Emotional, Cognitive, and Psychological Considerations

- **Impact on independence and well-being:** Sensory loss can lead to a decline in independence, relationships, and mental wellness.
- **Specialized healthcare professionals:** Include professionals such as gerontologists, ophthalmologists, occupational therapists, speech language pathologists, behavioural therapists, and audiologists for assessments and treatment.
- **Social inclusion:** Facilitate meaningful community engagement and maintain relationships, especially as peer groups age and interactions decrease due to health or mobility changes.
- **Routine and consistency:** Consistent routines add structure and predictability, requiring less cognitive energy and promoting emotional support. Use consistent language, sequence of steps, and communication tools to support independence (Routines - Texas Deafblind Project).
- **Adapting activities:** Accommodate sensory loss by adapting preferred activities to avoid lack of stimulation. Incorporate other senses like taste, touch, movement, and smell through multi-sensory spaces (e.g., Snoezelen rooms).
- **Awareness of available cognitive resource:** Processing and interpreting visual and auditory information may take longer and require more energy. Allow extra time for processing and responses while including breaks throughout the day.

Conclusion

Aging in place for people with complex needs requires a collaborative approach, involving the person, family members, DSPs, healthcare providers, and community professionals. Early identification and intervention with sensory loss are vital to maintaining a supportive, empowering, and accessible living environment. DSPs play a crucial role in recognizing and adapting to sensory changes, ensuring individuals live with independence, dignity, and a good quality of life.

For more information, please contact us at info@deafblindontario.com or check out www.deafblindontario.com

About DeafBlind Ontario Services

DeafBlind Ontario Services supports people who are deafblind, as well as those living with a developmental disability who are Deaf, hard of hearing or use non-traditional forms of communication. Specialized services are customized to each person's unique needs, method of communication, and goals to live their best life. We believe in empowering people to make their own decisions and providing information in their preferred mode of communication.

References

Anderson, M. A. (2017). Invited commentary - “The prevalence and impact of vision and hearing loss in the elderly.” *North Carolina Medical Journal.* https://ncmedicaljournal.com/article/54912

Christel Galea, M., & Ginsler, M. (2020). *A guide developed by Reena & Mary Centre: Aging with a developmental disability.* https://www.agingdd.com

DeafBlind Ontario Services. (2023). Enriched communication approach in sensory loss*. International Journal of Direct Support Professionals*, *12*(11).

DeafBlind Ontario Services Accessibility resource for sensory loss (deafblindontario.com)

Gerlitz, C. (2024). Is glaucoma hereditary. *Calgary Family Eye Doctors.* https://calgaryfamilyeyedoctors.com/is-glaucoma-hereditary/#:~:text=One%20type%20of%20glaucoma%2C%20open,family's%20history%20of%20eye%20disease

Heine, C. (n.d.). *Why we lose our hearing and vision as we age.* The Conversation. https://theconversation.com/why-we-lose-our-hearing-and-vision-as-we-age-67930

McKenzie, K., Ouellette-Kuntz, H., & Martin, L. (2017). Applying a general measure of frailty to assess the aging-related needs of adults with intellectual and developmental disabilities. *Journal of Policy and Practice in Intellectual Disabilities, 14,* 124-128.

Nochajski, S. M. (2000). The impact of age-related changes on the functioning of older adults with developmental disabilities. *Physical & Occupational Therapy in Geriatrics, 18*(1), 5–21. https://doi.org/10.1080/J148v18n01_02

Sensory Impairment & Loss. (n.d.). Deafblind Information. World Health Organization. https://www.who.int

Siewe, Y. J. (n.d.). *Understanding the effects of aging on the sensory system October 2016*. http://osufacts.okstate.edu

Sullivan, W. F., Heng, J., Perry, A., Bach, M., & Casson, I. (2019). Aging that includes an intellectual and developmental disability: A time to flourish? *Canadian Family Physician, 65*(Suppl 1), S5-S7. PMID: 31023770; PMCID: PMC6501708.

Routines – Texas Deafblind Project (txdeafblindproject.org)

Vision and Vision Loss. (n.d.). *National Institute on Aging.* https://www.nia.nih.gov/health/vision-and-vision-loss/aging-and-your-eyes

Vision Conditions and Diseases. (n.d.). *National Eye Institute.* https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases

Vision and Hearing Conditions and Diseases. (n.d.). *Johns Hopkins Medicine.* https://www.hopkinsmedicine.org/health/conditions-and-diseases/presbycusis

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