7.3: Applying the Nursing Process

This section outlines the steps of the nursing process when providing care for individuals with altered sensory function in any setting.

Assessment

When assessing a patient for sensory impairments, it is important to first establish a therapeutic relationship. Individuals may be hesitant to discuss sensory problems. By establishing a good rapport, patients are more likely to share their sensory concerns and effects on functioning. The health history should include questions regarding current status of sensory function, as well as risk for development of sensory impairment. For example, medications that can be ototoxic should be considered a risk factor for hearing impairment. Additionally, opioids and sedatives depress the central nervous system and can impair stimuli perception and reaction. Techniques to identify deficits in vision, hearing, smell, taste, and sensation are used during the physical exam. Read additional information about assessment techniques using the following hyperlinks.

Note

Read about common disorders of the eyes and ears in the “Eye and Ear Assessment” chapter of the Open RN Nursing Skills textbook.

Read more about assessing sensory functioning in the “Neurological Assessment” chapter of the Open RN Nursing Skills textbook.

There are several factors to consider when assessing a patient’s sensory functioning, such as age, their perception of the impairment, and the impact of the sensory impairment on their daily functioning. Age is an important consideration...
because many sensory functions can be affected by the aging process. However, it should not be assumed that all sensory problems are a normal part of the aging process. It is important to assess the patient’s perception of sensory impairment and its impact on their functioning, as well for any changes in recent behavior, mental status, emotional status, or cognitive function changes. For example, individuals experiencing hearing loss may be more irritable or anxious and avoid social gatherings due to their hearing impairment. If a patient is experiencing confusion, it is important to evaluate underlying factors that can cause confusion.

The environment is also an important consideration when assessing an individual’s sensory functioning. It is important to understand the patient’s daily activities and their ability to perform them; their work and living environment; their use of protective equipment, such as ear protection when working with loud equipment; and their adherence with routine screenings, such as vision and hearing exams. Individuals with sensory impairments are at increased risk for falls and injury, so it is important to encourage basic safety features in the environment, including adequate lighting, availability of handrails and grab bars, hazard-free walkways, and appropriate settings on water heater controls.

When sensory impairments are identified, they should be documented in the patient’s chart and communicated to collaborative team members working with the individual. For example, when an individual has a hearing impairment, it is important to consider their alternative communication needs. They may use lipreading and require face-to-face views when communicating. The use of assistive devices for sensory functioning, such as glasses and hearing aids, should also be documented and communicated. It is important to ensure proper functioning of the devices for optimal patient outcomes. In fact, a hospitalized older adult is at greater risk for developing delirium when their typical glasses and hearing aids (i.e., their “eyes and ears”) are not available, causing sensory deprivation.

See Table 7.3a for a comparison of expected versus unexpected findings on assessment, including those that require notification of the health care provider.

Table 7.3a Expected Versus Unexpected Findings

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Expected Findings</th>
<th>Unexpected Findings</th>
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<tbody>
<tr>
<td><strong>Hearing and Ears:</strong> Assess ability to appropriately answer questions individually and in a group setting. Assess the ear canal for excess cerumen. Perform a whisper test while standing behind the seated patient. Observe the patient’s balance and gait.</td>
<td>The patient can converse and answer questions. Presbycusis can occur with aging.</td>
<td>Inability to communicate; complaints of ringing in ears (tinnitus), decreased attention, and withdrawal from conversations. Poor coordination, loss of proprioception, increased falls. Report to the health care provider recent changes in hearing, new tinnitus, imbalance, or dizziness.</td>
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<tr>
<td><strong>Vision:</strong> Assess near vision by the ability to read printed material. Use the Snellen chart to assess distant vision. In a long-term care or home setting, observe the patient’s ability to perform ADLs.</td>
<td>Around age 40, reading glasses may become necessary for close work.</td>
<td>Report to the health care provider new changes in vision.</td>
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Touch:
Assess ability to feel stimuli by lightly touching the extremities, bottom of the feet, and fingers. Ask if the patient has unusual sensations in their extremities (e.g., tingling, burning, pain).

The patient can feel light touch and discriminate between warm and cold. Inability to feel light touch; reported new numbness, tingling, or pain in the extremities. Report to the healthcare provider sudden changes in sensation or peripheral neuropathy or new onset of facial numbness (such as in the case of a cerebrovascular accident, commonly referred to as a stroke).

Smell:
Assess ability to identify odors with eyes closed.

The patient can identify smells such as vanilla, lemon, or coffee. The sense of smell often diminishes with advancing age. Inability to differentiate odors or decreased sensitivity to strong odors.

Taste:
Ask about food intake and taste.

The patient can determine if food is salty, sweet, or spicy. Inability to discriminate taste, leading to changes in appetite, weight loss, excess use of salt or sugar, and depression.

Sensory Input:
Assess for cognitive, perceptual, and affective changes.

Sensory stimulation is adequate to maintain awareness. Irritability, restlessness, covering ears or eyes to shield themselves from sensory input, increased sensitivity to tactile input. Reduced learning capacity or inability to think. Confusion, boredom, changes in visual/motor coordination. Report to healthcare provider sudden changes in cognitive, perceptual, or affective abilities.

Diagnoses

Commonly used NANDA-I nursing diagnoses for patients experiencing alterations in sensory function include the following:

- Risk for Injury
- Risk for Falls
- Impaired Verbal Communication
- Social Isolation

A common NANDA diagnosis related to sensory alterations is Risk for Injury, which is defined as, “Susceptible to physical damage due to environmental conditions interacting with the individual's adaptive and defensive resources, which may compromise health.” “Alteration in sensation” is an associated condition for this nursing diagnosis. For risk diagnoses, there are no related factors (etiologic factors) because you are identifying a vulnerability in a patient for a potential problem that is not yet present. Additionally, the nurse cannot resolve sensory alteration, so it should not be
listed as a related factor to which interventions are directed. Instead, the phrase “as evidenced by” is used to refer to the evidence of risk that exists.

Therefore, a sample NANDA-I diagnosis in current PES format would be as follows: “Risk for Injury as evidenced by alteration in vision.”

### Outcomes

An overall goal for a patient at risk for injury related to alteration in sensation is as follows:

- *The patient will remain free from injury.*

An example of a “SMART” expected outcome for a patient with impaired vision is as follows:

- *The patient will be able to verbalize the layout of the room within four hours of admission.*

### Planning Interventions

There are many nursing interventions that can be implemented for individuals with impaired sensory function. To assist patients to communicate effectively and to promote their quality of life, it is important for the nurse to customize appropriate interventions based on their individual needs. As always, refer to an evidence-based nursing care planning resource when customizing interventions for specific patients. See Table 7.3b for basic nursing interventions to implement for a variety of sensory alterations.[2]

<table>
<thead>
<tr>
<th>Sensory Alteration</th>
<th>Nursing Interventions</th>
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<tbody>
<tr>
<td>Impaired Vision</td>
<td>Ensure that patients have access to their glasses or contacts that are cleaned properly and have a current prescription. Provide magnifying glasses if needed.</td>
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<td></td>
<td>Identify yourself whenever entering the room.</td>
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<td></td>
<td>Monitor functional implications of diminished vision.</td>
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<td></td>
<td>Provide adequate room lighting.</td>
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<td></td>
<td>Minimize glare (i.e., offer sunglasses or draw the window covering).</td>
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<td>Describe the environment to the patient as needed.</td>
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<tr>
<td></td>
<td>Avoid rearranging the environment. Maintain an uncluttered environment and remove hazards such as scatter rugs and oxygen tubing when possible.</td>
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<td></td>
<td>Provide verbal explanations of the location of items or food.</td>
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Provide reading materials in large print, as needed.

Apply labels to frequently used items (e.g., mark medication bottles using high-contrasting colors).

Encourage and assist in arranging annual eye exams, including screening for glaucoma.

Perform or arrange for routine hearing assessments. Assist the patient in acquiring a hearing aid or assistive hearing device when needed.

Ensure appropriate use of assistive hearing aids as needed; maintain batteries and cleanliness of the equipment.

Gain patient’s attention before speaking.

Avoid noisy background environments when speaking.

Avoid communicating more than 2-3 feet away from the patient.

Use gestures, when necessary.

Simplify language (i.e., do not use slang but do use short, simple sentences) as appropriate.

Facilitate lipreading by facing the patient directly in good lighting, allowing them to see your mouth while speaking. Avoid speaking with anything in your mouth (such as gum or a mint) and do not turn from them while speaking. Use a low, deep voice when speaking.

For patients with severe hearing impairment, document their preferred method of communication (e.g., verbal, written, lipreading, or American Sign Language) in their plan of care.

Advise the patient to check pilot lights in home appliances visually.

Encourage the patient to check expiration dates on food items and marking dates on leftovers in the refrigerator.

Maintain water heater temperature at a safe range to avoid burns.

Check the temperature of bath water with a thermometer.

Listen to the patient and provide sufficient time for their answer. Avoid childlike phrases and words.

Ask questions that only require short or “yes” or “no” answers for patients with expressive aphasia.

Keep explanations simple.
Provide a communication board or other alternative methods of communication as appropriate.

Collaborate with a speech therapist to develop a plan for effective communication.

Provide education to family/caregivers to facilitate communication.

Plan and combine nursing activities to avoid interrupting rest time.

Decrease noise level in the room and the hallway outside as much as possible, including both noises from medical devices and conversations.

Close the room door if possible.

Provide meaningful stimuli such as the patient’s choice of television, radio, reading material, calendars, photos of family members, and pets.

Provide social interaction as appropriate; encourage family members/caregivers to engage in meaningful conversations with individuals.

Sensory Overload

Sensory Deprivation

Standards of Care

National Patient Safety Goals established by The Joint Commission include prevention of falls. Appropriately assessing the risk of falls for patients with sensory impairments and implementing effective nursing interventions to prevent falls help to meet this standard of care. [4]

Evaluation

Evaluate a patient’s progress toward the expected outcomes established. Include safety, functioning, ability to communicate, and satisfaction with quality of life when evaluating the effectiveness of interventions. Determine if changes in the plan of care are needed to better meet the needs of the individual.


