



**State-approved Curriculum**  
**NURSE AIDE I TRAINING PROGRAM**  
**July 2019**  
**Module R**



North Carolina Department of Health and Human Services  
Division of Health Service Regulation  
Health Care Personnel Education and Credentialing Section

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## Module R – Cognitive Changes Due to Aging Teaching Guide

### Objectives

- Identify cognitive changes that occur due to aging
- Describe the importance of pacing and patience while delivering care to the older adult

### Advance Preparation – In General

- Review curriculum and presentation materials
- Add examples or comments in Notes Section
- Set up computer/projector

### Advance Preparation – Teaching Tip

- **#1R Video:** Familiarize self with the following link:  
<https://sharpbrains.com/blog/2008/05/26/brain-games-and-teasers-top-50/>

### Advance Preparation – Activities

- **#1R Pacing and Patience Simulation:** The purpose of this activity is for the students to experience how a fast, or rushed, pace affects the older resident by simulating a first-hand, fast-paced experience of being rushed. The instructor is critical to the success of this activity.

Duplicate copies of the simulated test, front and back, on the light setting of the copier (so the print is light, yet readable). Read the activity carefully because it includes several components – the instructions to the students, the actual taking of the test by the students and instructions on how you interact with them during the test, follow-up discussion about feelings, and then the big reveal that the test does not count, with an explanation of the purpose of the whole activity.

- **Alternative activities for Activity #1R:** You may use a different activity as long as it allows the students to experience how a fast, or rushed, pace affects the older resident by simulating a first-hand fast-paced experience of being rushed.

One experience would be to have students draw a picture with their non-dominant hand. The picture would need to be complicated enough that no student should finish it in the allotted time. You could bring in a picture and tell them they have to copy it. Adapt the instructions that begin on page 10-R to the activity you choose. Here are a few examples for adapting the instructions.

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- 20 minutes may be too long. You could give students a shorter time.
- If students ask if this counts toward their grade, you could respond, “We’ll see.”
- Instead of saying, “Obviously you were not paying attention during class,” you could say, “Obviously you can’t use your non-dominant hand very well.”

If you use an alternative activity, take the time to adapt the instructions to your activity prior to class.

**Module R – Cognitive Changes Due to Aging  
Definition List**

**Cognition** – the manner in which messages from the five senses are changed, stored in memory, recovered from memory, and later used to answer questions, respond to requests, and perform tasks

**Learning** – the gaining of information, skills, and knowledge measured by an improvement in some obvious response

**Memory** – involves the storing of information in the brain for later use and the ability to recall the information when needed

**Pacing** – the awareness and adjustment of nursing care based on how slow or how fast a person is functioning

**Patience** – the ability to deal with slowness, delay, or boredom without complaining or appearing rushed

**Reaction Time** – the time it takes for a person to begin an answer or a movement after someone asks him/her a question or makes a request

| <b>Module R – Cognitive Changes due to Aging</b>  |              |
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| <p><b>(S-1) Title Slide</b><br/> <b>(S-2) Objectives</b><br/>                     1. Identify cognitive changes that occur due to aging<br/>                     2. Describe the importance of pacing and patience while delivering care to the older adult</p>   |              |
| <b>Content</b>  | <b>Notes</b> |
| <p><b>ACTIVITY #1R: Pacing and Patience Simulation (Individual)</b></p> <p>Refer to the instructor guide for Activity #1R Pacing and Patience Simulation</p> <p><b>TEACHING TIP #1R Self-reflection</b></p> <p>As you teach content throughout this section, remind students about how they felt during the Pacing and Patience Simulation.</p>   |              |
| <p><b>(S-3) Cognition</b></p> <ul style="list-style-type: none"> <li>• The manner in which messages from the five senses are changed, stored in memory, recovered from memory, and later used to answer questions, respond to requests, and perform tasks</li> </ul>  |              |
| <p><b>(S-4) The Healthy Aging Brain</b></p> <ul style="list-style-type: none"> <li>• Healthy older adults do not have notable decreases in cognitive ability and are able to learn new information                             <ul style="list-style-type: none"> <li>○ Cognitive function is related to use for healthy older adults</li> <li>○ Important for an older person to use his/her brain or lose it</li> <li>○ Ability to think or problem-solve remains sharp, especially for usual situations and familiar experiences</li> <li>○ Generally remains as intelligent and creative as ever</li> </ul> </li> </ul> |              |
| <p><b>TEACHING TIP #1R: Video</b></p> <p>Tell students:</p> <p>Games help exercise our brains. For some people, playing certain types of games might be beneficial for things like mood, memory, concentration, reasoning, and imagination. Games might be especially helpful for the brain if they require learning something new. The older adult brain can benefit from games such as puzzle, tile, or board games, card games, dice games, word and number games, and</p>   |              |

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| <p>indoor and outdoor games. Video games can benefit the aging brain as well.</p> <p>Click on the link below to, <i>Brain Game and Top Teasers</i>. Games and teasers 1, 2, 6, and 10 take very little time to do. Review the other one prior to class to see if you want to use any of them.</p> <p><a href="https://sharpbrains.com/blog/2008/05/26/brain-games-and-teasers-top-50/">https://sharpbrains.com/blog/2008/05/26/brain-games-and-teasers-top-50/</a></p> <p>Ask students:</p> <ul style="list-style-type: none"> <li>• What type of brain games do you enjoy doing during your spare time?</li> </ul>            |  |
| <p><b>(S-5) Learning and Memory</b></p> <ul style="list-style-type: none"> <li>• Learning                             <ul style="list-style-type: none"> <li>○ The gaining of information, skills, and knowledge measured by an improvement in some obvious response</li> <li>○ The ability to learn remains throughout life</li> <li>○ Older adults learn things easier and better when they can set their own pace</li> <li>○ Depends on the person’s memory</li> </ul> </li> <li>• Memory – involves the storing of information in the brain for later use and the ability to recall the information when needed</li> </ul> |  |
| <p><b>(S-6) Cognitive Changes due to Aging (1)</b></p> <ul style="list-style-type: none"> <li>• Size of neurons (brain cells) progressively decrease</li> <li>• Total brain mass decreases</li> </ul>  |  |
| <p><b>(S-7) Cognitive Changes due to Aging (2)</b></p> <ul style="list-style-type: none"> <li>• Physiological/psychological responses slow down</li> <li>• Increased learning time needed for new activities</li> <li>• More difficulty in learning motor skills</li> <li>• Decrease processing, response time and reaction time, making fast-paced instruction more challenging</li> </ul>  |  |
| <p><b>(S-8) Cognitive Changes due to Aging (3)</b></p> <ul style="list-style-type: none"> <li>• More deliberate, less frequent responses and less effective performance when pace is fast – particularly in stressful/unfamiliar surroundings</li> <li>• Slow with tasks when response speed is needed</li> <li>• Cannot adapt as well, especially in stressful/unfamiliar environments and with impaired senses</li> </ul>  |  |

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| <ul style="list-style-type: none"> <li>Easily confused when too many changes or losses happen at one time or when moved to a different environment</li> </ul>   |  |
| <p><b>(S-9) Cognitive Changes due to Aging (4)</b></p> <ul style="list-style-type: none"> <li>Mild short-term memory loss often occurs (forgetting names, misplacing items, poor recall of recent conversations)</li> <li>Motivation to learn decreases</li> <li>Feels threatened more when declining cognitive abilities may be publicly demonstrated</li> <li>Difficulties in doing more than one task or dealing with more than one request at a time occur</li> <li>Unable to ignore irrelevant stimuli</li> </ul>  |  |
| <p><b>(S-10) Cognitive Changes due to Aging (5)</b></p> <ul style="list-style-type: none"> <li>Reaction time – the time it takes for a person to begin an answer or a movement after someone asks him/her a question or makes a request                             <ul style="list-style-type: none"> <li>Changes in reaction time vary from person to person</li> <li>Reaction time slows gradually after age 60 (it takes longer for resident to begin with an answer or to start a movement), especially when the older adult has to make a choice or change movement from one direction to another</li> <li>Impaired by aging process, sensory deficits, or chronic disease</li> </ul> </li> </ul> |  |
| <p><b>(S-11) Understanding Reaction Time</b></p> <ul style="list-style-type: none"> <li>Important that nurse aides who work with residents be aware of changes in reaction time and pace themselves accordingly</li> <li>Important that nurse aides develop understanding of ways to help resident make up for slowed reaction time</li> </ul>  |  |
| <p><b>(S-12) Workload of the Nurse Aide</b></p> <ul style="list-style-type: none"> <li>Let's switch gears and talk about the workload of the nurse aide                             <ul style="list-style-type: none"> <li>Tend to have a lot to do in a short period of time</li> <li>When working with residents, nurse aides may accidentally quicken pace and expectations as they get pressed for time</li> </ul> </li> </ul>  |  |
| <p><b>TEACHING TIP #2R: Fast Pace</b></p> <p>Ask students:</p> <ul style="list-style-type: none"> <li>How does a fast pace affect the older resident?</li> </ul>  |  |

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| <ul style="list-style-type: none"> <li>Recall how you felt when you were rushed during the test you took earlier</li> </ul>   |  |
| <p><b>(S-13) Effects of a Fast Pace on an Older Resident</b></p> <ul style="list-style-type: none"> <li>Can negatively affect older resident’s ability to learn something new, perform a task, or maintain motivation to complete an activity</li> <li>Older residents tend to be more cautious and less willing to respond quickly in situations where they think they might fail</li> <li>Some may choose not to even do task because of fear of failure</li> </ul>                           |  |
| <p><b>(S-14) Social Breakdown Syndrome (1)</b></p> <ul style="list-style-type: none"> <li>May occur if resident is rushed too much and not allowed enough time to begin to do tasks, respond to requests, or answer questions</li> <li>Will likely keep quiet and not ask for slower pace and tends to blame self for not being able to keep up and then become frustrated</li> <li>Gradually begins to feel incompetent and has decrease in self-esteem</li> </ul>                             |  |
| <p><b>(S-15) Social Breakdown Syndrome (2)</b></p> <ul style="list-style-type: none"> <li>May give up doing things leading to dependence and helplessness</li> <li>Often labeled as slow and unable to keep up in society</li> <li>Living in an advanced, high technological society, where everything and everyone is functioning at a high rate of speed, leads to lower self-esteem among older adult population</li> <li>Society becomes impatient with those who cannot keep up</li> </ul> |  |
| <p><b>(S-16) Pacing and Patience (1)</b></p> <ul style="list-style-type: none"> <li>Pacing – the awareness and adjustment of nursing care based on how slow or how fast a person is functioning</li> <li>Patience – the ability to put-up with slowness, delay, or boredom without complaining or appearing rushed</li> <li>Pacing and patience can be used to offset effects of a resident’s slowed reaction time</li> </ul>   |  |
| <p><b>(S-17) Pacing and Patience (2)</b></p> <ul style="list-style-type: none"> <li>When allowed to take their time and set own pace, residents               <ul style="list-style-type: none"> <li>Are better able to perform tasks or learn new things</li> <li>Have time to use their physical and physiological assets to respond to the best of their abilities</li> </ul> </li> </ul>  |  |

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| <ul style="list-style-type: none"> <li>○ Feel better about themselves, feel competent, and feel more in control</li> </ul>   |  |
| <p><b>(S-18) Pacing and Patience – Role of the nurse aide</b></p> <ul style="list-style-type: none"> <li>• Slow down pace when working with residents</li> <li>• Let the resident set the pace</li> <li>• Ensure that the resident is wearing hearing aid and/or glasses before beginning a task, if applicable</li> <li>• Tell the resident ahead of time about the task</li> </ul>   |  |
| <p><b>(S-19) Pacing and Patience – Role of the nurse aide</b></p> <ul style="list-style-type: none"> <li>• Allow time for resident to focus attention on the task or question</li> <li>• Allow time for resident to think about what has been said</li> <li>• Give clear, short, easy instructions that are based on what the resident already knows</li> <li>• Relate new information or tasks with past experiences</li> </ul> |  |
| <p><b>(S-20) Pacing and Patience – Role of the nurse aide</b></p> <ul style="list-style-type: none"> <li>• Use simple words that resident understands</li> <li>• Show the resident what is to be done</li> <li>• If something has just been learned, allow resident to look at equipment (if equipment is used)</li> <li>• Praise resident when a task is done</li> </ul>  |  |
| <p><b>(S-21) Praise Resident When Task Is Done</b></p> <ul style="list-style-type: none"> <li>• Good job! Give a hug; tell them exactly what you liked about the job they did; depending on how up-to-date with current gestures a person is, high-five; hand slap; fist bump, etc., could be used.</li> </ul>   |  |

**Activity #1R**  
**Pacing and Patience Simulation Instructor Guide**

Before class, read the activity carefully because it includes several components. You will also need to duplicate copies of materials for the students. The simulated test should be copied on the light setting of the copier, so the print is light.

Duplicate the test, front and back, copied on a light setting of the copier.

Do not tell the students the test is part of an activity. During the administration of the test, be very natural with comments that you make and do not use this sheet as a prompt.

In a hurried manner, instruct the students that they must:

- Clear their desks except for a pencil or pen
- Take a test on previously learned material
- Complete the test in 20 minutes

Distribute the test and observe reactions.

As the students attempt to complete the test, do and say the following throughout the time:

- “You’d better hurry up because you don’t have much time”
- “You are a lot slower than the last class that took the test”
- “Obviously you were not paying attention during class”
- Pace the floor and look at their work
- Shake your head if you catch someone looking at you
- After about 5 minutes, look at your watch and state, “I thought you’d be done by now.”

After about 8 minutes, say “Oops. Time is up. Hand in your tests.”

Questions to Ask:

- “Well, how did you do?”
- “Raise your hands if you think you passed the test”
- If most of the students say “no,” then ask “Why do you think you didn’t pass the test?”
- “Do you think the test was fair?”
- “How would you change the look of the test?”
- “How did I make you feel?”
- “Suggest ways that I can help you do better on the next test.”
- “Were any of you tempted to just say, “FORGET IT – I don’t care what I make on this test”
- “How did you feel about me and what I was saying to you during the test?”

After the students have discussed their answers, inform them of the following, relative to the testing situation:

- The test will not count.
- The test was written in very small print, with an odd font, and copied using the light setting, so they could understand how difficult it is to do something well, if your eyes have difficulty with the activity.
- During the test, I changed the pace on you and gave you a task for which you were unprepared and did not have time to complete.
- I rushed you and I also added an element of competition to the activity.
- The test was a simulation of the concepts of pacing and patience, which you will learn about now.
- As we go over the content, think back to this activity and how you were feeling – and then maybe you can understand how a resident may feel who is being rushed.

Name \_\_\_\_\_

Progression Test

1. List the 6 links of the Chain of Infection, in order that they were presented during class:

1.

2.

3.

4.

5.

6.

2. List the 6 links of the Chain of Infection, in alphabetical order:

1.

2.

3.

4.

5.

6.

3. On the first day of class, you learned about two important websites that every student needs to know. They are

1.

2.

4. Two examples of basic nursing skills are \_\_\_\_\_  
and \_\_\_\_\_.

5. Two examples of personal care skills are \_\_\_\_\_  
and \_\_\_\_\_.

6. Examples of harmful germs include \_\_\_\_\_ and  
\_\_\_\_\_.

7. \_\_\_\_\_ is point where most weight is  
concentrated for a standing person.

8. The foundation that supports an object is  
\_\_\_\_\_.

9. The definition of a hazard is \_\_\_\_\_.  
Three examples of hazards are

- 1.
- 2.
- 3.

10. PASS stands for

11. What is the difference between a physical restraint and a chemical restraint?

12. An example of a physical restraint is \_\_\_\_\_.

13. When cells are combined and perform a special function, they form  
\_\_\_\_\_.

14. When tissues are combined and carry on a specific function, they form an \_\_\_\_\_.
15. When several organs function together, they form a \_\_\_\_\_.
16. Urine is made up of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
17. Muscle atrophy means that muscle mass \_\_\_\_\_ in size.
18. \_\_\_\_\_ disease is a progressive nervous disease due to destruction of brain cells.
19. Upper GI structures include the \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
20. Define gastroenteritis.
21. List four ways the integumentary system changes with aging:
- 1.
  - 2.
  - 3.
  - 4.
22. What is the difference between the respiratory system and the endocrine system?
23. Describe the function of the endocrine system.

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24. Name 4 principles of body mechanics.

- 1.
- 2.
- 3.
- 4.

25. The brain is located in the \_\_\_\_\_ and is made up of three parts:

- 1.
- 2.
- 3.

26. List five changes of the neurological system occur because of aging:

- 1.
- 2.
- 3.
- 4.
- 5.