

The Disease Mechanism of Alzheimer's Dementia

Teaching Strategy

Overview of Teaching Strategy

While the symptoms of Alzheimer's dementia are prevalent in many practice arenas, the disease behind the symptoms is often not clearly understood. The correlation between symptoms, etiology, and pathophysiology is not as tangible as other physiological diseases such as cardiovascular disease or diabetes. Dementia symptoms that present as psychiatric behaviors are often misinterpreted as willful or oppositional. This erroneous notion can lead to diminished care, practitioner burnout, and ineffective assessment. The development of an understanding of the pathophysiology of the disease process and the course of the disease can help the practitioner to better understand the correlation between the disease and the symptoms. Since the diagnosis of Alzheimer's dementia is made by exclusion of other possible causes for the presenting symptoms, the method of understanding the underlying disease is imperative.

This teaching strategy is designed to help the student become more proficient in understanding Alzheimer's dementia as a disease process. It was created to pair a topic that is heavily laden with complexity with an engaging approach. The premise of the strategy is similar to a game show where the participants are quizzed on content areas about the pathophysiology, etiology, course of the illness, and epidemiology of Alzheimer's dementia. Designed as a flipped lecture approach, the students learn about the content through readings prior to class and participate in the game format in class.

Download All Files for This Teaching Strategy

- [What Do You Remember about Alzheimer's Dementia's slideshow](#)

Learning Objectives

Students will:

- Develop an understanding of the pathophysiology of Alzheimer's dementia
- Discuss how the symptoms of the disease are directly related to the changes in the brain
- Recognize the encompassing implications of caregiver strain for both the caregiver and the patient
- Articulate the common symptoms seen in the progression of Alzheimer's dementia
- Develop an understanding of how Alzheimer's dementia is diagnosed
- Recognize the differences between Alzheimer's dementia and age associated cognitive changes
- Discuss risk factors associated with Alzheimer's dementia

Learner Pre-Work

1. Send the students to the [Alzheimer's Association website](#). There are four sections that can be used as resources:
 - [About Alzheimer's](#)
 - [Risk Factors](#)
 - [Treatments](#) looks at the different [types of dementia](#)
 - [Inside the Brain](#)
2. Assign reading on cognitive impairment from the student's text or utilize the [National Institute of Health resource page on Alzheimer's disease](#).

Suggested Learning Activities

1. Open the *What Do You Remember about Alzheimer's Dementia* slideshow PowerPoint file in a game show format. The topic areas are:
 - *What's It All About?* – epidemiology and financial issues of Alzheimer's dementia
 - *The Patho to My Physiology* – pathophysiology of Alzheimer's dementia
 - *More Paths to Physiology* – more pathophysiology
 - *Why Does It All Happen?* – risk factors associated with Alzheimer's dementia
 - *Help Me Remember* – varied content related to diagnosis, types of dementia and symptom progression
2. Start the game by clicking onto one of the point values under the selected topics. **The file must be opened in the slide show mode in order to click onto the point values to play the game.** Advancing to the next slide will reveal the answer. Always click the house icon on the bottom right of the slide to return the viewer to the game board and restart the process. The categories are numbered from 1-5 and coincide with the topics listed above: *What's It all About?*; *The Patho to My Physiology*; *More Paths to Physiology*; *Why Does It All Happen?*; *Help Me Remember*.
3. Each of the answer slides has speaker notes with substantial information to augment the answers. The information provided in these notes is expansive and more than adequately covers the content area. These notes also have links to assessment tools in the *How to Try This Series* which coordinate with the content or videos to supplement the content.
4. The approach in this teaching strategy allows for the question to be presented first followed by lecture content. This active learning approach lets the students first become invested in the question and process the content in a way in which they can be better connected to the issue.
5. To re-set the game, close the file. When the file is reopened, the board will be reset and the point values will restore to a bolded font.

Materials

1. The [Try This:® Series](#) from the Hartford Institute for Geriatric Nursing (HIGN) at the NYU Rory Meyers College of Nursing contains many evidence-based assessment tools. The tool, an article about using the tool, and a video illustrating the use of the tool, are all available for your use. Those listed below are particularly recommended.
 - [Mental Status Assessment of Older Adults: The Mini-Cog™](#)
 - [Confusion Assessment Method \(CAM\)](#)
2. [Alzheimer's Association website](#)
3. [Cleveland Clinic Alzheimer's Disease webpage](#)
4. [How Alzheimer's Changes the Brain video](#)

Suggested Reading

Davis, N.J., Hendrix, C.C. Superville, J.G. (2011). Supportive approaches for Alzheimer disease. *The Nurse Practitioner*. 36 (8), 22–29. doi:10.1097/01.NPR.0000399724.54519.ae

Author Information

Laureen Tavolaro-Ryley, MSN, RN
Community College of Philadelphia
Philadelphia, PA