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Class: Evaluation I

Undergraduate Athletic Training: professional phase

Time allotted: 90 minutes

Rationale and Background

This lesson will use the memory model of teaching. Using this model of teaching will provide students an interesting avenue by which to learn information that must be memorized, hopefully providing them an aid to learning that can also be applied to other content. This lesson will take place in the lecture lab where treatment tables, supplies, and presentation equipment is available. The students enter this lesson with a background in the anatomy and physiology of the cranial nerves but not their functions. This lesson will be relevant to the students during their clinical experiences where they can apply this information in a real-life cranial nerve evaluation. Students will learn best in different ways so this lesson plan incorporates concept mapping to create a flow and visual aid as well as ridiculous association to make it memorable to meet the needs of different types of learners. Technology used in this lesson will include the concept mapping available at <http://bubbl.us/edit.php>. This website can be used by both the students and the teacher to create a map of the cranial nerves evaluation. Computer and projector will also be used to make the concept map available for all students to see.

Lesson Objectives

- 1- The learners will memorize the twelve cranial nerves and their functions.
- 2- The learners will apply what they memorized to create a concept map/flow chart of how they will test/assess the cranial nerve functions in an athlete.

Performance Indicators

- 1- The learners will be able to recite each cranial nerve and its function(s).
- 2- The learners will be able to efficiently test/assess each cranial nerve in an athlete.

Resources

- 1- Starkey evaluation handbook

Background Reading

- 1- Starkey eval book

Concepts

- 1- CNI: Olfactory- (sensory) smell
- 2- CNII: Optic- (sensory) vision
- 3- CNIII: Oculomotor- (motor) cross-eyed movement, pupil response, upper eyelid movement
- 4- CNIV: Trochlear- (motor) look up
- 5- CNV: Trigeminal- (both) muscles of mastication and face sensation
- 6- CNVI: Abducens- (motor) look laterally
- 7- CNVII: Facial- (both) muscles of expression and taste
- 8- CNVIII: Vestibulocochlear- (sensory) hearing and balance

- 9- CNIX: Glossopharyngeal- (both) swallow and taste
- 10- CNX: Vagus- (both) swallow and gag reflex
- 11- CNXI: Accessory- (motor) shoulder shrug
- 12- CNXII: Hypoglossal- (motor) tongue movement

Procedures

Introduction/Motivation

Motivation: show YouTube clip of cranial nerve song

<http://www.youtube.com/watch?v=G9Wf6XVf1A>

“What do you think about this? Do you think something like this would be helpful in learning the cranial nerves and what they control?” > discussion

Activate prior knowledge: Show brain prosection of cranial nerves and have models on each table with students. Have students point out/name each cranial nerve.

Lesson Purpose: to teach students the functions of each cranial nerve and how to efficiently test all twelve.

Lesson Body

- Attend to the material (underline, list, reflect): Have each student reference the chart in their handbook and make a list of each nerve and what it does using key words
- Develop connections (using key words in combination with concept mapping): As a class, create a concept map combining motions and nerves into easy flow that will allow you to test/assess efficiently
» <http://bubbl.us/view.php?sid=539292&pw=yaahFMK34I7NIMjhGLlhLOHd2RBdw>
- Expand sensory images (ridiculous association): divide students into 11 groups. Each group is responsible for creating one ridiculous association for one cranial nerve assigned to them- example “the old factory smells!”- in picture format.
- Practicing recall until completely learned: demonstrate the cranial nerve exam based on concept map created. Have students practice with partners.
- Higher level questions/Enrichment: Provide a case study> A football player makes a tackle. Once on the ground, his head bounces and is hit by another player and forced back into the ground. He is slow getting up and the referees call you, the athletic trainer, onto the field. You run onto the field and begin your concussion assessment, including cranial nerve testing. You find that the athlete has trouble seeing up close, has an unequal pupil reaction to light, and has difficulty keeping his eyes open. What are you beginning to think?
- Re-teaching: Using the case study, what cranial nerve is that? What are its functions? What other cranial nerves are related to the eye that you had to rule out? What are their functions?

Lesson Closure

- Review of main concepts: Randomly pick students in the room to say nerve name and functions- play as a “rapid fire” game.

Evaluation

- Assessment will be ongoing throughout the lesson by observing each student’s participation in class activities.
- Formal assessment will occur later in the form of written and oral practical examinations.

Citation Information

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