Utilizing a kinesthetic learning strategy to engage nursing students thinking, enhance retention and improve critical thinking.

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Background

- Nursing instructors are continuously challenged to find new ways to engage students, while stimulating critical thinking to improve clinical application.
- Utilizing active, kinesthetic learning activities that are student-centered enhances engagement, improves clinical problem solving, communication skills, and critical thinking.
- A kinesthetic learning activity was incorporated into a cardiac lecture during the medical-surgical nursing rotation of first semester junior students at Siena Heights University.

Primary Objective

- Nursing students frequently have difficulty understanding and applying physiological concepts about cardiac function during clinical experiences.
- This innovative teaching strategy incorporated a kinesthetic learning activity to help students retain important information and develop a clearer understanding of key concepts of cardiac function.

Conceptual Framework

- Adult learning concepts with a humanistic model where both the teacher and student are engaged in the learning process, promoting creativity and critical thinking.

Project Design & Description

- Junior nursing students participated in an in-class kinesthetic learning experience designed to reinforce pre-assigned readings about cardiac disorders.
- During this exercise, students enacted the various functions of the heart, lungs, and gas exchange using a variety of props such as balloons (for lungs), colored cards (for venous and arterial blood), yarn (for the conduction system) and cardboard structures for the valves.
- Students "walked" through the circulation of the heart, lungs, and peripheral circulation, (exchanging a red card for a blue card). All students were asked to verbally guide the person through the circulatory system.
- By various movements, students were able to demonstrate normal and abnormal cardiac function and disorders.

Sample, Design & Methods

- A convenience sample (N=43) was used to evaluate student feedback in this pilot feasibility project.
- A graphic of the human heart was designed for students to use to simulate the action of the heart during normal function and with various disorders.
- Students took an active role in "acting out" the various movements of the heart and electrical conduction system variations during dysrhythmias, congestive failure, hypertension, and effects of medications.
- Students were assessed for engagement, recall and satisfaction with the experience.
- Students were also assessed on their subsequent ability to apply the information in practice to understand cardiac pathophysiology and responses to cardiac medications.

Results

- Students reported a greater understanding of concepts related to cardiac function and more satisfaction with the learning experience.
- As a result, students were able to identify nursing interventions, understand pharmacological interventions, and identify relevant outcomes for patients with cardiac disease.
- Students showed improved clinical performance, more accurate concept mapping plans, improved clinical application of various cardiac medications, and improved exam scores in the theory portion of class.

Conclusions & Implications

- Utilizing more kinesthetic learning activities with students may help improve information transfer, problem solving, critical thinking, understanding of key concepts, and overall satisfaction with teaching methods.
- This strategy may be adapted to nurse orientation or patient education activities in the future.