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The impact of active/cooperative instruction on beginning nursing student learning strategy preference

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Summary Rapid changes in the nursing field and high demand for practicing nurses put pressure on nursing faculty to educate increasing numbers of nursing students, often without corresponding increases in resources. Although the use of active and cooperative instruction methods in the classroom has been associated with improved student learning, these practices require increased effort on the part of both faculty and students. In addition, little is known about whether these methods influence student nurses' use of these more elaborative processing strategies in their independent study. The purpose of this quasi-experimental investigation was to identify the impact of incorporating active and cooperative classroom instructional activities on student preference for teaching methods and use of learning strategies in independent study.

A convenience sample of beginning baccalaureate nursing students at a large Mid-Atlantic University was randomly assigned by the registrar to two class sections. Students in one section received primarily active/cooperative instruction, while the other received primarily traditional lecture-based instruction. Results indicated that student nurses exposed to active/cooperative instructional methods had an increased preference for these methods after a semester of instruction, while those exposed to traditional instruction had a higher preference for traditional methods. In addition, students participating in active class instruction reported increased preference for more elaborative independent study strategies, although overall preference for both groups indicated a reliance on surface study strategies of memorization and recall. Implications for use of instruction and student testing methodologies are presented.

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Introduction

The world of nursing and healthcare is rapidly changing. The impact of these changes together with an acute nursing shortage puts pressure on nursing education programs to teach a larger number of students a greater amount of information in an efficient manner, toward the goal of graduating an increased number of nursing students adequately prepared to pass state licensure examinations and enter the nursing workforce.

The means to accomplish this goal often include increasing class size and presenting an ever-increasing amount of information to students. Increased class size and expanded course content may push nursing faculty to focus on the presentation of a large amount of information in theory courses, with little time being set aside for active and collaborative engagement of students in the learning process. However, current nursing practice requires the ability to interpret and analyze relationships between multiple pieces of information and to solve complex problems in an ever-changing environment (Rowles and Brigham, 1998). Students do not often develop these abilities independently, but rather, need instructor guidance in learning how to process information and learn in a manner other than memorization of facts. Given the increasing workloads for both faculty and students, we must be able to identify the potential student learning ''returns'' associated with the ''time and energy investment'' required when faculty use active and elaborative instruction methodologies.

Literature review

Learning strategies

Several studies have investigated nursing students' learning strategies, with the general consensus that students often take the surface approach to learning, even though the use of deeper elaborative strategies is associated with more positive learning outcomes (Cowman, 1998; Cust, 1996; Snelgrove, 2004). Several factors appear to influence student preference for learning strategies. Students who report mastery and meaning learning orientations are more likely to use an elaborative approach to learning (Somuncuoglu and Yildrim, 1999), as are students who report a higher amount of study time (Stiernborg et al., 1997). In addition, students having higher perceived abilities tend to use a wider range of learning strategies than those with lower perceived abilities (Braten and Olaussen, 1998).

Research indicates that student perceptions of course format and demands also impact their use of learning strategies. When perceived workload is heavy and there is a high perceived emphasis on grades, students are more likely to use surface learning strategies (Cust, 1996; Karabenick, 1997; Snelgrove, 2004; Spencer and Jordan, 1999).

Instruction strategies

Literature in both the educational and nursing realms indicates that instructional methods requiring active student engagement in the classroom promote deeper processing of content material (Anderson, 1996; Cust, 1996; Spencer and Jordan, 1999). Examples of ''active'' instructional methods include: student identification of examples or illustrations of concepts being discussed (Rowles and Brigham, 1998), inclusion of case studies or problem-based learning strategies (Forbes et al., 2001; Spencer and Jordan, 1999), faculty and student development of concept maps to represent relationships between concepts (Forbes et al., 2001; Rowles and Brigham, 1998; Wheeler and Collins, 2003) and experiential strategies (Pugsley and Clayton, 2003; Spencer and Jordan, 1999). Use of cooperative and active learning methodologies are also reported to be rated highly by students (Clark, 1995; Thompson and Scheckley, 1997).

Cooperative learning is becoming a favored strategy by educational experts (Elberson et al., 2001; Nolinske and Mills, 1999; Tanner et al., 2003), and can also serve as a means to incorporate other active learning methodologies into larger class environments. In cooperative learning, students are assigned in small groups to complete a task, solve a problem, analyze a case scenario, complete an in-depth project, or take a test. Each member of the group is responsible for a part of the work and students must work together to complete the assignment (Gumbs, 2001; Nolinske and Mills, 1999). Research indicates that student engagement and learning are facilitated and that this method of instruction is viewed positively by students (Elberson et al., 2001; Lusk and Conklin, 2003; Mitchell and Melton, 2003; Pugsley and Clayton, 2003; Tanner et al., 2003).

Although many nursing faculty acknowledge the importance of instruction methodologies being student-centered, they may not be using these methodologies in the classroom, particularly in large group settings. Using the Principles of Adult Learning Scale, Schaefer and Zygmont, 2003 found that self-reported instruction style of U.S. nursing faculty was teacher, rather than learner centered, even though respondents acknowledged the