Implementing collaborative learning in undergraduate nursing curricula: Student perceptions and learning outcomes

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Introduction

This three-phase action research study compared undergraduate nurses learning outcomes and student perceptions in a course using three different methods of curricular delivery in each phase: traditional lecture, collaborative learning groups, and collaborative learning groups with a wiki. Collaborative learning occurs when students work interdependently in groups to achieve shared learning goals. The benefits of collaborative learning include content mastery, development of critical thinking and problem solving skills, and improved interpersonal skills; essential to interprofessional team work.

Purpose

Learning outcomes studied were the students’ ability to: 1) synthesize knowledge from nursing and other health disciplines in using evidence based practice to manage health care of diverse clients, and 2) demonstrate critical thinking skills in reasoning, analysis, research or decision-making relevant to the discipline of nursing.

Study Methods

Action research provided a rigorous method to implement curricular change and evaluate its effectiveness. Investigators inquired and examined the data sources at each phase, employed self-reflection of the participants to inform purposeful changes as the teaching-learning process proceeded at each phase. Traditional lectures in phase one were replaced with collaborative learning teams in phase two. Based on student feedback, two major changes were implemented during phase three. Instructors created a web-based wiki feature in the course learning system. Students completed their assigned case activity outside the class, placed the information on the wiki and presented the information to their peers in class. Student perceptions were assessed at the end of each phase using a one page open ended questionnaire. Student outcomes were assessed through exam performance.

Participant sample

Nursing students were enrolled in the same course, and in either the traditional (4-year; n=193) or accelerated (12-month; n=153) baccalaureate program.

Analysis/Results

The one-way ANOVA with teaching method (P=.03) had a significant association with the mean exam score. Mean unit exam scores for lecture vs collaborative groups vs lecture were significantly higher (87.126% vs 84.398%; p=.02). Lecture vs collaborative & wiki were also significantly higher (87.126% vs 83.557%; p=.02). The proportion of students that passed the unit exam was not different between the three phases. The students’ perception of collaborative learning was positive in that they enjoyed the problem solving, “real-life” nature of the learning
experience. Students had a negative perception of collaborative learning in that they found it difficult to identify what material to study for unit exams. Additionally, students tended to prefer the collaborative method over the collaborative + wiki method, regardless of whether they were in the traditional or accelerated nursing programs.