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Utilizing Collaborative Testing to Engage Nursing Students, Improve Academic Achievement, and Decrease Attrition

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Abstract

Background: Research indicates that approximately 20% to 42% of students leave nursing programs after the first year. To address this issue, it has been recommended that nurse educators utilize new approaches to engage students in the classroom. However, studies show nursing lacks evidence that one method of teaching is more effective than another or that there is a relationship between learning outcomes and teaching strategies. ***Purpose:*** The purpose of this research was to determine if students who participate in a collaborative teaching process in the classroom have decreased attrition and increased levels of academic achievement and engagement than do students who do not participate in a collaborative teaching process. ***Theoretical Framework:*** The educational theory used to guide this investigation was Bandura's social cognitive theory, which combines both behavioral and cognitive orientations. ***Method:*** A quasi-experimental, after-only, nonequivalent control group design was used. The sample size consisted of 153 students. Students in both the control and experimental groups were enrolled in either a fundamental or a behavioral-health nursing course. Health Education Systems Incorporated–Specialty Exams were utilized to measure academic achievement. A Survey of Student Engagement was used to measure student engagement. ***Results:*** No statistical significance was found for any of the three research questions. Odds ratios indicated traditional students in the experimental group were five times more likely to pass the fundamentals Health Education Systems Incorporated–Specialty Exam (HESI-SE) than traditional students in the control group. Non-traditional students in either the control or experimental groups were thirteen times more likely to pass the HESI-SE with a score of 850 or higher. Seven students passed the fundamentals nursing course because of points obtained during the collaborative testing process. The literature indicates nursing students, who pass nursing courses because of points awarded in the collaborative testing process, complete the nursing program and pass the National Council Licensure Examination (NCLEX)-RN on their first attempt. Findings indicated, when controlling for the seven students that passed the fundamentals nursing course because of the collaborative testing process, the passage rate of traditional age students increased by10% and non-traditional students by 24%. The Survey of Student Engagement results remained flat. ***Conclusions:*** Further research, using larger sample sizes, is needed to determine the effect of collaborative testing and its impact on student engagement in both the traditional and non-traditional nursing students. A tool that measures student engagement specific to the classroom also needs to be developed. A study is being developed to determine the outcome of the seven students that passed the fundamentals course because of the use of the collaborative testing process.

Title:

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Keywords:

attrition, collaborative learning strategies and student engagement

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Abstract Summary:

The research purpose was to determine if student participation in a collaborative testing process resulted in decreased attrition and increased academic achievement and student engagement when compared with students who did not participate in a collaborative testing process. Though not significant, findings indicated increased academic achievement and decreased attrition rates.

Content Outline:

I. Introduction

A. Background of the problem including discussion related to the:

1. Predicted shortage in nursing

2. Nationwide attrition rates in nursing programs

3. Nursing's lack of evidenced based research to select teaching strategies

B. Purpose of the study:

1. Three research questions asked

a. Do nursing students who participate in a collaborative

learning process:

aa. Attain high levels of academic achievement

bb. Report high levels of student engagement

cc. Have low attrition rates

C. Bandura's social cognitive theory guided the study

1. Bandura's Triadic Reciprocal Model

2. Three determinants, person behavior and environment

II. Body

A. A review of the literature that included nursing students and the independent and dependent variables

1. Collaborative learning

2. Attrition

3. Academic achievement

4. Student engagement

B. Methods used to set up and implement the study

1. Quasi experimental research design

2. IRB approval obtained at the institutional site

3. The institutional setting

4. G*Power analysis used to determine sample size

5. Instrumentation that was used

a. Survey of Student Engagement (SSE)

b. Health Education Systems Incorporated – Specialty Exam (HESI-SE)

aa. Fundamentals

bb. Psychiatric mental health

C. Procedures utilized that involved both the control and experimental groups

1. Data collected for both control and experimental groups

2. Similarities between the control and experimental groups

a. Courses students were enrolled in

b. Number of unit exams for each course

c. Instruments that were completed

3. Differences between the control and experiment groups

a. Placed in permanent groups

b. Redistribution of the actual exam time

4. Steps utilized in the collaborative testing process

3. Slides of data showing

a. Demographic of both the control and experimental groups

b. Research results and integration of findings for research question one

c. Research results and integration of findings for research question two

d. Research results and integration of findings for research question three

III Conclusion

A. Significance of the findings as they apply to

1. Nursing education

2. Nursing practice

3. Nursing research

4. Public policy

B. Recommendations for the future

1. Increase the sample size

2. Develop a Survey of Student Engagement to reflect student engagement in the classroom

3. Track students that passed the course because of the collaborative testing process

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Professional Experience: After twenty years of nursing in both the acute care and outpatient settings, Dr. Jackson entered into the world of academia. She has eleven years of nursing education experience with a focus in the area of maternal child health. Her teaching/research focus is on the utilization of immediate feedback and use of collaborative learning strategies in the classroom.

Author Summary: Dr. Jackson has presented in multiple higher education settings both within and outside of the discipline of nursing. Recently she was a presenter at the Association of American Colleges and Universities sponsored Ohio Project Kaleidoscope conference. The conference focus was evidence-based science, technology, engineering, and mathematics (STEM) education within higher education. Dr. Jackson is interested in research in both the educational and clinical setting and is interested in working with researchers on an international level.