



UNIVERSITY OF
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College of
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SCHOOL OF NURSING

Comparison of Face-to Face and Distance Learning Teaching Modalities in Delivering Therapeutic Crisis Management Skills

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Disclosure

The author of this presentation, Jennifer S. Graber, Assistant Professor at the University of Delaware, states that there is no conflict of interest and there was no sponsorship or commercial support given to the author regarding this study.

Objectives

1. Discuss nursing student satisfaction related to distance education and face-to-face interaction.
2. Identify at least two benefits of distance education in nursing programs.



Purpose

The purpose of this study was to compare effectiveness and satisfaction of distance education versus face-to-face interaction in delivering therapeutic crisis management skills content to Associate Degree Nursing (ADN) Students as measured by test scores, overall grade point average (GPA), class grade, and student satisfaction survey results.



Research Questions

1. Are there differences between test scores, overall GPA, and class grade of students who were taught therapeutic crisis management techniques via face-to-face interaction and those who were taught through a distance education format?
2. Are there differences in the degree of nursing student satisfaction between distance education and face-to-face interaction when learning therapeutic crisis management techniques?



Theoretical Framework

- Bandura (2002) found that distance education benefits those who possess self-efficacy for regulating the learning experience, but this has not been supported by research in the literature.
- The term active learning was also developed from Social Cognitive Theory.
- Active learning involves “increased engagement of students with the learning process with the ultimate goal of integrating and applying new knowledge” (Young & Paterson, 2007, p. 122).

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Research Design

- The study was a quasi-experimental, post-hoc causal comparative, two group post-test only design.
- There were two conditions: face-to-face classroom delivery of course content and distance education with online course content.
- The study was designed to compare effectiveness of distance education and face-to-face interaction through reviewing test grades, overall GPA, and class grades.
- Additionally students were asked to rate their satisfaction of the different modalities.

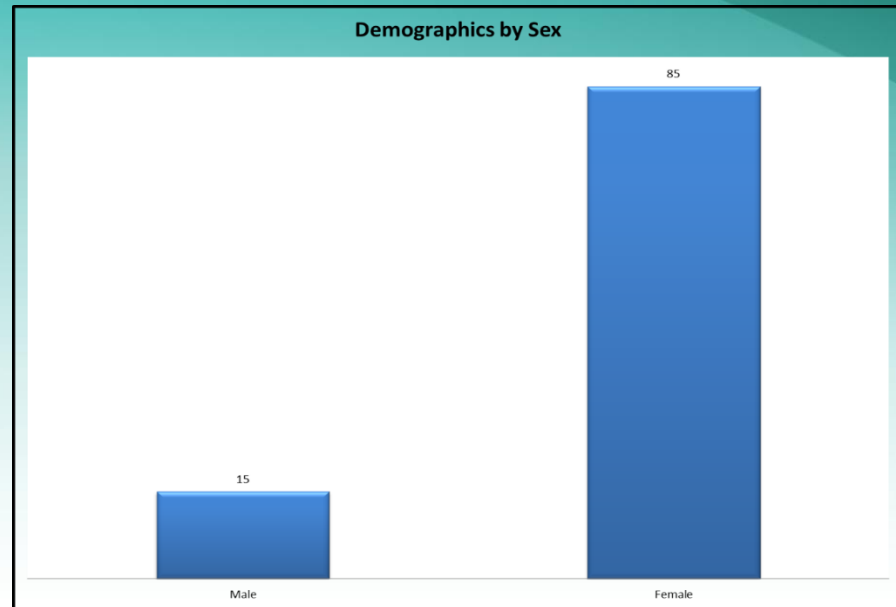
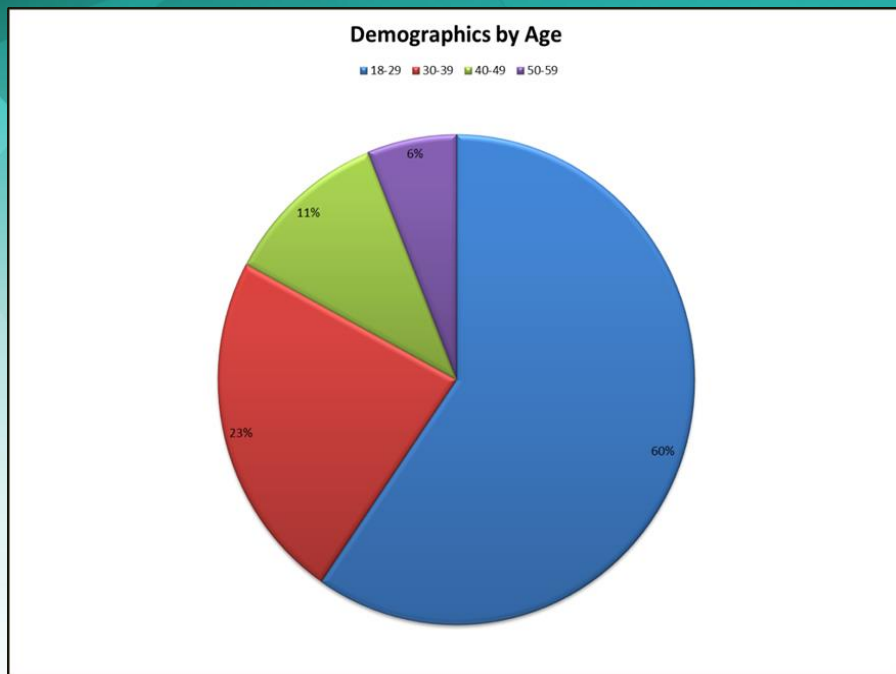


Participants

- The sample for this study was a convenience sample of ADN students who had successfully completed at least two semesters of nursing classroom and clinical work.
- The students enrolled in one of two sections each semester including a section for face-to-face instructor interaction, and a section for students to receive distance education.
- The sample size for the study included 110 participants recruited over two academic semesters.
- There were 63 participants in the face-to-face interaction group, and 47 in the distance education group.

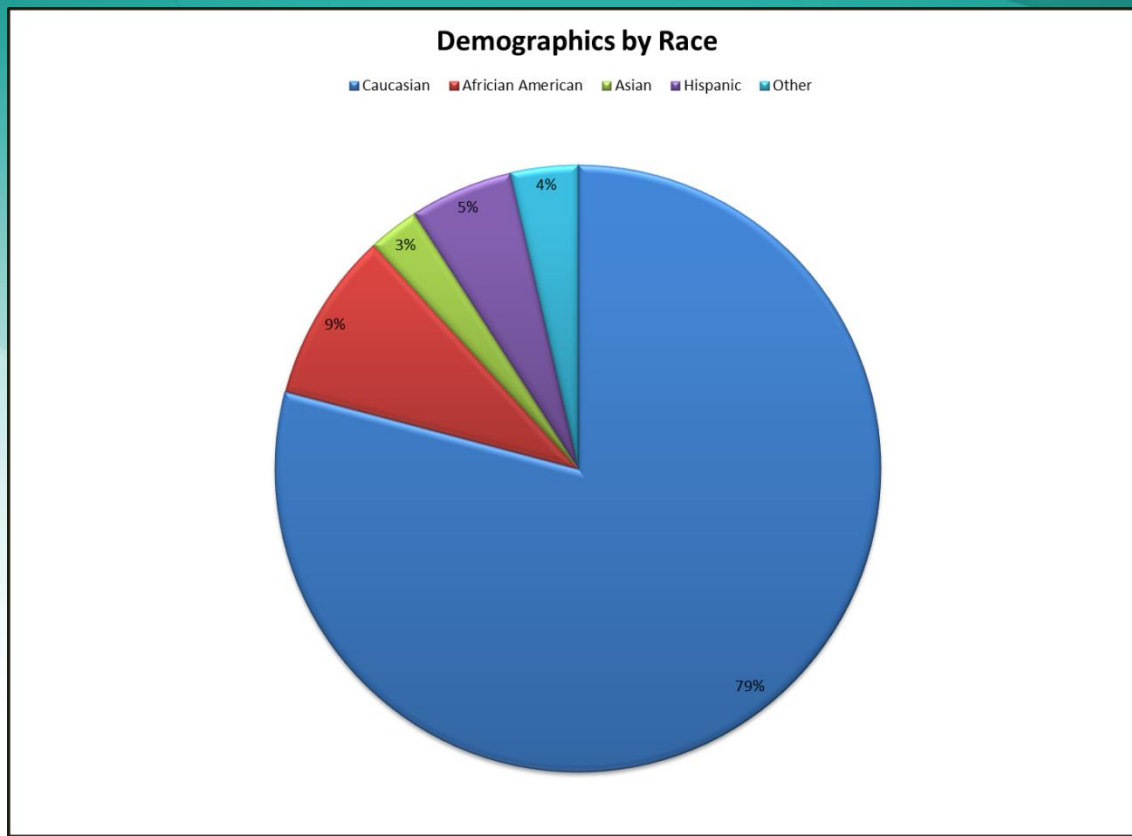


Participant Demographic Information





Participant Demographic Information





Instrumentation

- Test score data was collected from test questions, related specifically to the therapeutic crisis management content, and satisfaction surveys.
- Overall GPA and class grades were gathered from student records.
- Surveys of student satisfaction were peer reviewed by two faculty members and were piloted with a cohort of 65 students from the 2010 school year.



Data Analysis: Research Question 1

- A series of Independent Samples t-tests, with an alpha .05, were performed to assess the mean difference between the section of the course as the dependent variable and test grade, overall GPA, and class grade as the independent variables.
- Data were characterized for their distributional characteristics using descriptive and graphical methods where they were tested for equal variance and passed.



Data Analysis: Research Question 2

- A series of Independent Samples t-tests, with an alpha .05, were performed between the section of the course as the dependent variable satisfaction score as the independent variable.
- Analysis was performed using SPSS Independent Samples t-test.



Implications for Nursing Education

- Distance education must be an option for nursing schools facing today's difficult challenges with faculty and space shortages.
- There is currently a decreased opportunity for learning due to lack of clinical sites and staff as well as decreased clinical hours in psychiatric nursing and the distance education format provides a low-risk environment to practice (Kaas, 2010).
- No difference between the face-to-face and distance education group could indicate that distance learning is an effective teaching modality when compared to face-to-face interaction



Implications for Nursing Education

- It is important to note that student preference for a particular teaching modality did not impact the overall test grade.
- Difference in overall GPA and overall course grade were not statistically significant.
- Of note, there were no statistically significant differences of overall satisfaction between students who were and those who were not in their preferred section.
- This may suggest that providing both face-to-face interaction and distance education sections will not adversely affect student outcomes or their level of satisfaction with the course.



Recommendations for Future Research

- The results may help nurse educators understand student's during varying educational experiences which may help guide future development of effective methods to teach therapeutic crisis management techniques.
- The research should be performed with larger groups across varying geographical locations to be more generalized to nursing education.
- Future research could also look more closely at learning styles to see if there is any correlation between a specific learning style and satisfaction.



Summary

- Neither research question was supported by the data from the study.
- No differences were found between test scores of students who were taught therapeutic crisis management techniques via face-to-face interaction and those who were taught through a distance education format.
- No differences in the degree of nursing student satisfaction between distance education and face-to-face interaction when learning therapeutic crisis management techniques was found either.



Summary

- Distance education nursing courses are comparable to face-to-face interaction with classroom delivery of student satisfaction and student learning outcomes (Bata-Jones & Avery, 2002).
- Other research has studied student self-efficacy related to being comfortable with distance education courses (Beitz & Snarponis, 2006; Maag, 2006; Paterson, Storr, & McKenzie, 2006), but little research has been performed on if the student was satisfied with the section that had been chosen.
- It would be important to also determine if preference was a reflection of learning styles or a rather a reflection of other student characteristics such as need for convenience.



Summary

- Technology is here to stay and it is imperative that nursing students as well as nurse educators are prepared for the changing educational environment.
- As nurse educators it is important to continually research the effectiveness of varying modalities and student satisfaction as well as effectiveness.
- Nurse educators strive for nursing programs that are efficacious and produce quality nurses.
- In a changing world it important to stay abreast of technology and pedagogy changes that may be more effective.

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References

- Aguliera, D.C. (1998). *Crisis intervention: Theory and methodology* (8th ed.). St. Louis, MO: Mosby.
- American Association of Colleges of Nurses. (2012). Nursing shortage. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/nursing-shortage>
- American Association of Colleges of Nurses. (2009). Student enrollment expands at U.S. nursing colleges and universities for the 9th year despite financial challenges and capacity restraints. Retrieved from <http://www.aacn.nche.edu/news/articles/2009/09enrolldata>
- Bandura, A. (1969). *Principles of Behavior Modification*. New York, Holt, Rinehart and Winston.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hill
- Bandura, A. (1989). Social cognitive theory. *Annals of Child Development*, 6, 1-60. Greenwich, CT: JAI Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (2002). Growing primacy of human agency in adaptation and change in the electronic era. *European Psychologist*, 7(1), 2-16.
- Bata-Jones, B., & Avery, M.D. (2004). Teaching pharmacology to graduate nursing students: Evaluation and comparison of web-based and face-to-face methods. *Journal of Nursing Education*, 43(4), 185-189.



References

- Beitz, J.M., & Snarponis, J.A. (2006). Strategies for online teaching and learning: Lessons learned. *Nurse Educator*, 31(1), 20-25.
- Burns, N., & Grove, S.K. (1995). *Understanding Nursing Research*. Philadelphia, PA: W.B. Saunders.
- Clark, C.C. (2008). *Classroom skills for nurse educators*. Sudbury, MA: Jones and Bartlett Publishers.
- France, K. (2007). *Crisis intervention: A handbook of immediate person-to-person help*. (5th. Ed.). Springfield, IL: Charles C. Thomas Publisher.
- Health Resources and Services Administration (2006). What is behind HRSA's projected supply, demand, and shortage of registered nurses? Retrieved from http://www.ahcancal.org/research_data/staffing/Documents/Registered_Nurse_Supply_Demand.pdf
- Jung, I., Choi, S., Lim, C., & Leem, J. (2002). Effects of different types of interaction on learning achievement, satisfaction, and participation in web-based instruction. *Innovations in Education and Teaching International*, 39(2), 153-160.
- Kaas, M.J. (2010). Sim-ye-la-shen. *Journal of the American Psychiatric Nurses Association*, 16(5), 315-317.



References

- Magg, M.M. (2006). Nursing students' attitudes toward technology: A national study. *Nurse Educator*, 31(3), 112-118.
- Mancuso-Murphy, J. (2007). Distance education in nursing: An integrated review on online nursing students' experiences with technology-delivered instruction. *Journal of Nursing Education*, 46(6), 252-259.
- National Center for Education Statistics. (2008). *Distance education at degree-granting postsecondary institutions: 2006-2007*. U.S. Department of Education.
- *Oxford English Dictionary*. (2011). Oxford, Great Britain: University Press.
- Tomey, A.M., & Alligood, M.R. (2002). *Nursing theorists and their work*. St. Louis, MI: Mosby.
- U.S. Bureau of Labor Statistics. (2012). Economic News Release. Retrieved from <http://www.bls.gov/news.release/empsit.nr0.htm>
- Varcarolis, E.M., & Halter, M. J. (2010). *Foundation of Psychiatric Mental Health Nursing: A Clinical Approach* (6th ed.). Canada: Saunders.
- Young, L.E., & Paterson, B.L. (2007). *Teaching nursing: Developing a student-centered learning environment*. Philadelphia, PA: Lippincott Williams & Wilkins.