Using interdisciplinary teaching to illustrate the relationship between nursing specialties & statistics

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Abstract

Purpose & Research Question/Hypotheses:

It is hypothesized that interdisciplinary team-teaching with cognitive-affective strategy would increase student engagement by demonstrating relationship between nursing specialties and statistics.

Theoretical Framework & Rationale:

Many students come to college with rudimentary understanding of statistical principals. Students report high levels of motivation and self-efficacy for nursing courses, and low levels of motivation and self-efficacy for the statistics course based on past beliefs, attitudes, and experiences. They also lack the critical thinking skills necessary to apply statistical principles in order to understand the profound impact of evidence in nursing. This difficulty is compounded by their apparent lack of passion about statistics, resulting in an inability for the knowledge to take root.

Method:

The Health Statistics is designed to introduce the nursing students to statistics. Seven nurse faculty offer 20-minute presentation in their area of expertise (e.g., angina, hypertension). Statistics faculty provide a 10-minute demonstration converting nursing constructs to nursing research variables with hypothetical-fictional data based on published findings. Students received a graded worksheet assignment and interpreted the SPSS findings based on ANOVA and linear regression.

Results:

First, pre-post (five knowledge/comprehension questions) data showed significance (p=.001-.031) using dependent t-test. Second, qualitative theme analysis reported students found meaning, relevancy to nursing practice. Third, thirty students volunteered to design and implement research projects not for class/grade for the purposes of developing a professional poster. Four, the interdisciplinary team reported experiential learning while designing the guiding worksheet questions which students applied to patient care and self-care.

Biography:

Dale M. Hilty received his PhD in counseling psychology from The Ohio State University Department of Psychology. He has published studies in the areas of psychology, sociology, and religion. Between April 2017 and April 2018, his ten research teams published 55 posters at local, state, regional, national, and international nursing conferences. His colleagues sharing the author line of this poster are: Ann Waterman, PhD, RN; Bev Gish, MS, RN; Jody Gill-Rocha, MS, RN; Erin Dougherty, MSN, RN; Kerry Fankhauser, DNP Candidate, MS, RN; Mary Yoder, MS, RN; Patty Severt, MSN.


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