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# Quantitative Analysis of Nursing Panel Teaching Strategy for Non-Nursing Courses



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## Background

Alberto & Herth (2009) provide an operational definition and an example of interprofessional educational collaboration.

Interprofessional collaboration has been described as involving "interactions of two or more disciplines involving professionals who work together, with intention, mutual respect, and commitments for the sake of a more adequate response to a human problem" (Harbaugh, 1994, p 20). Several authors (Biggs, 1997; Chapman, 2006; Fournier, 2000; Harbaugh, 1994) have noted that in multidisciplinary collaboration disciplines are working side-by-side anchored in their own respective disciplinary perspectives ... A recent example demonstrates how an interprofessional research team focused on linking theory related to the concept of hope with clinical practice so as to develop interventions that would engender hope in terminally ill children. This group included professionals from a wide variety of disciplines including, among others, nursing, psychology, occupational therapy, massage therapy, medicine, and education. The traditional, disciplinary-specific roles and knowledge were actively negotiated and woven into a single framework by the team, with the result that disciplinary boundaries faded in importance, and the problem was studied in a broader and deeper manner.

Hilty, Hinze, & Clark (2018) developed the Affective Domain Questionnaire used to measure interprofessional collaboration among social science and nursing faculty. Bachelor of Science in Nursing (BSN) students completed a senior level course emphasizing the importance of interprofessional communication among health care professionals. Student learning was evaluated across four time periods. 1st Assessment: Pre-test regarding the role and function of 10 healthcare professionals (Advance Practice Nurses, Chaplains, Ethicists, Interpreters, Occupational & Physical Therapists, Pharmacists, Registered Dietitians, Respiratory Therapists, Social Workers, & Physicians). Intervention 1: Six or seven students formed small groups and selected one of the ten health care professionals. Students wrote a paper focusing on the historical basis, education, training, legislative concerns, holistic specialization, and license/certification. Students presented the paper to the class prior to submitting it for a grade. 2nd Assessment: Intervention 2: A guest speaker from each of the 10 disciplines visited the class and shared the scope of practice, unique contributions, working relationships with Registered Nurses, and holistic recommendations. 3rd Assessment: Intervention 3: Students assumed the role of a registered Nurse in an interprofessional simulation including the patient, family, and the 10 licensed professionals.

The first assessment measured changes in learning based on intervention 1. Using SPSS 25, the dependent t-test findings showed significant differences on the three ADQ common factors comparing data from Assessments 1 and 2 (questions evaluated term paper and class presentation). The next assessment measured changes in learning based on intervention 2. Significant differences were found comparing Assessments 1 and 3 (questions evaluated guest speaker presentations). The last assessment measured changes in learning based on intervention 3. Significant differences were found comparing Assessments 1 and 4 (questions evaluated the interprofessional simulation). All differences were significant at  $p = .001$ .

## Background (Cont'd)

A second example (Hilty, Waterman, Gish, Gill-Rocha, Dougherty, Fankhauser, Yoder, & Severt, 2018) of interprofessional collaboration designed by social science and nursing faculty. BSN (N=169) students were enrolled in a 16 week course designed to introduce them to statistics. Independent variables were: (1) 20-minute presentation by nursing faculty (i.e., caring, angina, hypertension, leadership, food desert, mental health, death/dying), (2) 10-minute demonstration by the statistics faculty converting nursing constructs to nursing variables, and (3) students received a graded worksheet assignment and interpreted the SPSS findings based on ANOVA and linear regression. It was hypothesized that interdisciplinary team-teaching could increase student comprehension and application. Intervention quantitative, qualitative, behavioral evaluation: (1) significant pre-post data, dependent t-test ( $p = .001-.031$ ); (2) qualitative theme analysis revealed meaning, relevancy to nursing practice; and (3) approximately twenty students volunteered to participate in research project (design, implementation), not grade.

Hilty and Shea (2018; Shea & Hilty, 2018) provide a third example of social science and nutrition faculty offering an interprofessional collaborative learning experience to 1st and 3rd year BSN students. A 30 minute presentation included a nutrient analysis per meal for four diets: OmniHeart (based on the DASH Diet), Fancy Fast Foods (e.g., Panera), Fast Foods (e.g., McDonalds), and Snack Diets. *First*, students were presented with recommendations for goal intakes of selected nutrients (i.e., calories, fiber, sodium, protein, saturated fat, and added sugar) based on the Dietary Guidelines for Americans (U.S. Department, 2015 December). *Second*, we explored how different diet choices hinder one's ability to meet those recommendations. For example, the combination of two meals per day from OmniHeart with one meal from any of the other three diets resulted in positive energy balance with potential for significant weight gain. Using SPSS 25, the dependent t-test found statistically significant differences ( $p = .001$ ) for each of the five cognitive questions. Mean scores were higher on the post-test. Attached to the pre-/post-test questions were a number of open-ended brief essay questions, the qualitative theme analysis of first year students revealed meaning, relevancy to nursing practice.

## Aim

Waterman and Hilty (2017) report an innovative, interdisciplinary, collaborative teaching strategy is the Nursing Panel (NP) intervention. In the *Cultural Competence in Healthcare* course, this teaching strategy was designed by social sciences professor. The NP intervention invites traditional and accelerated Bachelor of Science in Nursing (BSN) students to ask questions of full-time Registered Nurse (RN) Faculty regarding cultural and nursing profession topics. Four RN Faculty share information and professional stories in an engaging, interactive format. A qualitative data analysis of nine questions indicated the NP was a positive educational intervention for faculty and the BSN students.

## Method

Dik et al. (2012) Calling and Vocation (CVQ) questionnaire was administered as a pre- and post-test (i.e., dependent variable) in this educational intervention. The independent variable was the NP experience. It was hypothesized that CVQ post-test scores would increase significantly from the initial assessment.

## Findings

Using SPSS 25, the dependent t-test analysis found significant differences (CVQ-Presence-Transcendent Summons,  $p = .002$ , CVQ-Search-Transcendent Summons,  $p = .001$ , CVQ-Presence-Purposeful Work,  $p = .001$ , CVQ-Search-Purposeful Work,

## Findings (Cont'd)

$p = .004$ , CVQ-Presence-Prosocial Orientation,  $p = .001$ , CVQ-Search-Prosocial Orientation,  $p = .042$ , CVQ-Presence Total,  $p = .001$ , and CVQ-Search Total,  $p = .001$ ). Significance on the CVQ Presence measures supports the qualitative effectiveness of the NP (Waterman & Hilty, 2018). The CVQ Search significant findings suggest the BSN students were exploring a nursing career specialty area.

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