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Following the Growth of Sarah's baby: An IPE Activity for Medical Nutrition & Diagnostic Sonography Students

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FOLLOWING THE GROWTH OF SARAH'S BABY: AN IPE ACTIVITY FOR MEDICAL NUTRITION & DIAGNOSTIC SONOGRAPHY STUDENTS

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Abstract

Objectives: Interprofessional education (IPE) involves collaborative learning among students from different professions. While acceptance of these types of activities is increasing, there are opportunities to expand the number of health care professions involved in IPE. The purpose of this study was to explore student perceptions and outcomes after participation in a Diagnostic Medical Sonography (DMS) and Medical Nutrition Education (MNE) interprofessional education activity centered around a clinical case study on fetal growth.

Subjects & Methods: The IPE activity was administered to four student cohorts from academic years to 2015-2016 to 2018-2019. Participants included 66 students (n=39 DMS and n=27 MNE). Data was gathered through pre- & post-tests based on a patient case-study and evidence-based search skills knowledge and a post-activity survey. Assessment sessions were held on the first day and on the last day of the activity.

Results: There was a statistically significant difference in the mean pre- and post-test scores for the group overall, (p=<0.001). Student perceptions of IPE were positive as measured by a quantitative survey and qualitative feedback.

Conclusion: This activity highlighting fetal growth was an effective strategy for engaging sonography and nutrition students in IPE.

Background

Although interprofessional collaboration is common practice and effective in improving overall patient care, attitudes toward such collaboration vary among students and healthcare practitioners.[1,2] Studies have found most professionals have positive attitudes toward interprofessional teamwork, but others are doubtful about the effectiveness of the practice.[2-6] IPE involves collaborative learning among students from different health professions. Within an IPE setting, students can learn from, with and about each other to improve collaboration and quality of care.[7] The acceptance of IPE as a part of healthcare education has increased in recent years.

IPE activities among allied health programs most often documented in the literature include patient scenarios, simulation and practice-based learning involving both small and large groups of students.[8] Findings from the systematic review note that patient scenario interventions featuring group work in small teams can lead to improved attitudes towards interprofessional interaction and teamwork, and improved understanding of health professional roles.[8]

IPE activities are often centered on professions with clearly overlapping roles, such as physicians and nurses. The effectiveness and acceptability of activities that engage healthcare professions without clear overlap in clinical functions is less frequently reported. Therefore, faculty designed an activity to engage DMS and MNE students in a case-based scenario focused on the use of library resources and fetal growth. This poster will report on the primary objectives of this study which include: 1). Evaluation of student perceptions of the IPE and 2). Assessment outcomes in regard to pre-and post-test scores after completing the IPE activity.

Methods

The study was approved by the Institutional Review Board. As part of the study, faculty developed an IPE activity using a single clinical case study. This hypothetical case study, based on a pregnant mother and her fetus, offered specific learning objectives for DMS and MNE students (Figure 1). Through the use of library based tutorials, students were also able to gain knowledge in regard to library resources and various search techniques for finding information based on the clinical care of this hypothetical patient.

The activity was enhanced through the use of iWall technology which enabled students to collaboratively share information and images regarding the clinical case study (Figure 2).

The IPE activity was administered to four student cohorts over a span of four academic years. Data was gathered on pre- & post-tests based on the patient case-study and evidence-based search skills knowledge and a post-activity survey. Assessment sessions were held on the first and last day of the activity.

Figure 1. Sonography students using an OB scan phantom to educate medical nutrition students during the IPE activity.

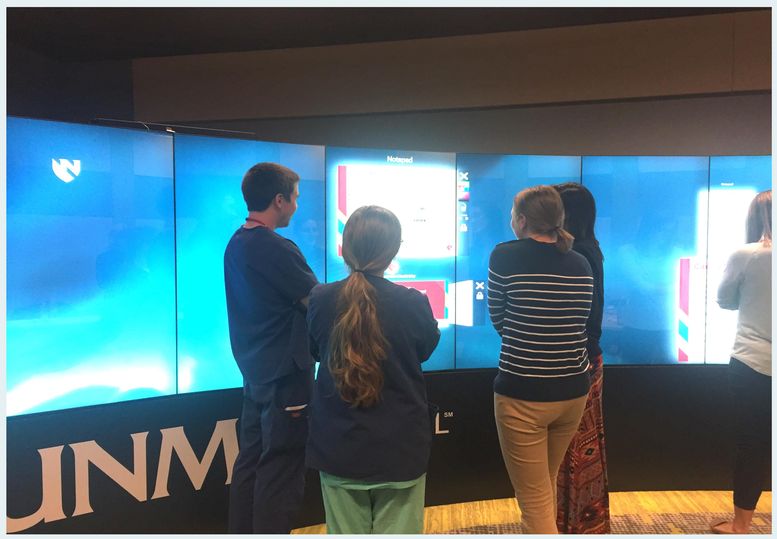

Figure 2. Students using iWall technology during the IPE activity.

Results

A total of 70 students participated in the IPE activity. Of these, 66 students completed both the pre- and post-test; 39 students were enrolled in the DMS program and 27 were enrolled in the MNE program. In evaluating the pre-and post-test scores, the scores improved by an average of 1.9 points. There was a statistically significant difference in the mean pre- and post-test scores (p=0.001).

Sixty of the 66 students completed a survey at the completion of the activity to assess their attitudes towards interprofessional education. Student perceptions of IPE were positive; 98.5% of the students strongly agreed or agreed that working with students from another health profession enhanced their education.

During the survey, students were also asked about the activities which they found to be most and least beneficial to their learning. The 24-hour recall demonstrated by the MNE students and the ultrasound simulation on the pregnant mother conducted by the DMS students were found to be the most beneficial to student learning. The library search for common causes of IUGR was found to be the least beneficial. This may be attributed to students previously attending various library tutorials as part of their specific program curriculum.

Conclusion

The use of IPE activities has been shown to be beneficial in the education of health professions students and may have a positive impact in their professional practice. Opportunities abound for the addition of IPE activities to a professional curriculum and can take a variety of forms. This IPE involving diagnostic medical sonography students, medical nutrition students and library resources is unique and not yet reported in the literature. The study demonstrates that successful IPE activities can be developed for health professions without a clear overlap in clinical responsibilities. In addition to offering benefits to the students, it also provided networking and scholarly activity opportunities for faculty.

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