The Impact of Interprofessional Simulation on Dietetic Student Perception of Communication, Decision-Making, Roles, and Self-Efficacy

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Introduction

• Ineffective communication among healthcare teams has been shown to be a common denominator behind many adverse events, medical errors, and delays in patient care of which result in negative effects on human lives, overall loss of trust in the healthcare system, and a cost of 17-29 billion dollars annually.1,2
• Self-efficacy is a measure of an individuals' perceived ability to execute a task or skill. High self-efficacy beliefs have been demonstrated to lead to improved performance and clinical competence.3,4
• Simulation allows participants to practice both task- and skill-related tasks in a safe setting.5
• Interprofessional education is crucial to delivering cost-effective, safe, and effective medical care; however, many health profession programs—including medical dietetics—still educate their students with minimal interaction and understanding of other health care professions.6

Research Questions

• Following an interdisciplinatory simulation experience:
  - Is there a difference in the perceptions of interdisciplinatory communication and decision-making?
  - Is there a difference in dietetic student understanding of the roles of the members of the healthcare team?
  - Is there a difference in self-efficacy in caring for a patient?
  - What are the identified themes evolving from collaboration?

Methods

• One-group pre-test post-test research design of mixed methods through pre-simulation and post-simulation questionnaires and post-simulation student reflection documents.
• A paired-samples t-test using SPSS version 21.0 (SPSS Inc., Chicago, Illinois) was used to detect the individual differences for each of the items on the questionnaires. Statistical significance was indicated with a p-value of ≤ 0.05.
• The researcher identified, analyzed, and described overarching themes in the reflection documents that offered answers to research questions.

Results

• All participants enrolled in Ohio State’s Medical Dietetics Program
• 30 students completed questionnaires in the Autumn 2012 & Spring 2013 simulations (3 male, 27 female, mean age 22.36 years)
• 33 students completed questionnaires in the Autumn 2013 simulations (4 male, 29 female, mean age 22.8 years)
• 62 students over three semesters wrote reflection documents

Conclusion:

• These results reinforce other research which shows improved perceptions of communication and teamwork following an interdisciplinary experience.
• Results demonstrate that students better understand the roles of members of the healthcare team following an interdisciplinatory experience.
• Across all data sources, students report increased confidence in caring for a ventilated patient, which is crucial as beliefs in self-efficacy play a large role in future performance and in meeting clinical competencies.
• Future research is needed to determine if the positive differences as a result of simulation are carried into the student’s professional role and lead to better patient outcomes

Reflection Document Themes

Communication and Decision Making
Understanding Roles and Responsibilities
Self-Efficacy in Patient Care
Respect (42)
Ask Questions (30)
Effective Communication (28)
Teamwork (22)
Importance of interaction (1)
"I've Got Your Back" (16)
Teaching (13)
Communication Challenges (12)
Vocab Difficulties (12)
Decision Making (7)
Listening (6)
Pharmacy – RD (39)
Roles Clarified (25)
Helpful (27)
Understand own role (14)
Nursing – RT (10)
MD – RD (8)
NP – RD (5)
Others understood RD (5)
RD didn't understand others (5)
Increased (46)
No Change (4)
Emerging Themes
Timing – too fast (7)
Fell valued (7)
Dynamic Experience (6)
Not Realistic (6)
Future Learning Necessary for Self (5)
 Pretending – Awkward (5)
"I've come so far" (4)
Difficult case (4)
Future Learning Necessary for Others (4)
Patient = Person (4)

References: