

Interprofessional Simulation Experience with an Acute Care Focus

Nursing & Physical Therapy Perspectives

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Research Team

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- Carolyn Kirkendall, MSN, RN, CCRN
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- Steve Wiley, PT, PhD, GCS

- Doctor of Physical Therapy (DPT) Students
 - Ashley Luhman & Alysha Clemens
- Nursing Honors (RN) Students
 - Clint David & Cassidy Werner

- All involved through the University of Indianapolis

Learner Objectives

- 1) The learner will be able to identify the benefits of interprofessional education in various healthcare professional programs.
- 2) The learner will be able to determine effectiveness of the interprofessional education study based upon the results.
- 3) The learner will be able to create an interprofessional education strategy based upon their needs.

No Conflict of Interest, Commercial Support, or Sponsorship

Research Study

The experiences of physical therapy and nursing students with an interprofessional learning experience involving an acute care patient simulation

Genesis of a Project

October 2013

Context for the Project

- **Healthcare Practice**
 - “Silos”
 - Interprofessional healthcare teams
- **Healthcare Education**
 - “Silos”
 - Interprofessional Education Collaborative (IPEC)
 - Accrediting Bodies



Interprofessional Collaborative Practice

When multiple health workers from different professional backgrounds work together with patients, families, caregivers, & communities to deliver the highest quality of care.

World Health Organization (WHO)

“No individual from a single discipline can adequately address the multitude of health-related problems confronting individuals.”

(Hertweck 2012)

Interprofessional Education (IPE)

When students from two or more professions learn *about, from, & with* each other to enable effective collaboration and improve health outcomes.

World Health Organization (WHO)

Research Study

Literature Review

- Multiple IPE studies
- Only two identified involving PT & Nursing students
- No studies involving PT & Nursing students in an acute care patient care simulation

Acute Care Learning Experience

- Patient Simulation Lab: Health Pavilion
- Human Patient Simulator (HPS): Live Actor
- Patient Scenario:
 - Patient with THR, day of surgery (POD 0)
 - Tasks assigned with emphasis on mobility



Purpose

1. To examine physical therapy & nursing students' perceptions of interprofessional education
2. To understand physical therapy & nursing students' experiences with a collaborative learning experience involving a simulated acute care patient case.

Study Design

Concurrent Triangulation



Participants

$n = 10$

- **5 DPT Students**

- Second year of a three year program
- Preparing for first clinical experience in acute care in Fall of 2015

- **5 BSN Students**

- Senior students graduating in May 2016

**** *No explicit exclusion criteria***

Data Collection

- **Simulated Learning Experience**
 - Student RN & Student PT randomly paired
 - Pairs of students completed 30 minute simulation
 - ✓ Observed by RN & PT faculty member
 - ✓ Video recorded for use in post-simulation debriefing

Data Collection/Analysis

- **Quantitative:**
 - Readiness for Interprofessional Learning Scale (RIPLS)
 - Prior to & 1-2 weeks after learning experience
 - Comparison of RIPLS scores:
 - Wilcoxon Signed-Ranks Test: Between times
 - Mann-Whitney U Test: Between groups
 - Simulation Design Survey (SDS)
 - 1-2 weeks after learning experience
 - Descriptive results from SDS

Results: Quantitative

Changes in RIPLS scores pre- to post-simulation

	Pre-sim Median (IQR)	Post-sim Median (IQR)	p-value
Total RIPLS Score	78.5 (12.5)	88.5 (4.25)	0.013*
Teamwork	40.0 (8.0)	45.0 (2.0)	0.020*
Negative PI	12.0 (1.25)	14.5 (3.0)	0.033*
Positive PI	15.5 (3.75)	19.0 (2.25)	0.007*
Roles & Responsibilities	11.0 (2.25)	12.0 (1.50)	0.076

IQR=Interquartile Range; PI=Professional Identity

*Statistically significant at $p < 0.05$

Results: Quantitative

Simulation Design Scale: (4 / 5 sub-scales)

**** Mean score for all items within the subscale (1 – 5 point rating system)**

Sub-scale	Items	Sim Design	Importance
Objectives & Information	5	4.78	4.62
Problem Solving	5	4.40	4.29
Feedback / Guided Reflection	4	4.93	4.93
Fidelity (<i>Realism</i>)	2	4.70	4.80

Data Collection

- **Qualitative:**
 - **Debriefing sessions:**
 - 30 minutes immediately after learning experience (Audio-recorded)
 - Two students & two faculty
 - Debriefing guide
 - **Semi-structured, face-to-face, one-on-one interviews:**
 - 15 minutes; 1-2 weeks after learning experience (Audio-recorded)
 - Interview guide

Results: Qualitative

- Themes representing participants' experiences were developed from analysis of debriefings & one-on-one interviews
- **Themes**
 1. Collaborative learning
 2. Understanding roles
 3. Self-efficacy

Theme 1: Collaborative Learning

I think it's important to learn with (nursing students) because that's how we're gonna work; we don't work separately from each other we work very hand in hand. **(PT5)**

It helps teamwork and at the same time it also establishes respect for each other and it's not like you're just a nurse or you're just a PT. I know their role and I know why they're important and I feel like it'll make a better work environment when I get out of school. **(RN2)**

Theme 2: Understanding Roles

I would look at PT different now if they came in the room and I was there. I probably wouldn't just try to leave ... it just makes me think, ok, I'm a part of this too. **(RN4)**

I think (understanding roles) is important because it prevents some animosity, it allows us to learn from each other. Originally I was like, I don't know if she can help me learn about myself and my skills, and then she did, and that's what really surprised me during the whole thing. **(PT2)**

Theme 3: Self-efficacy

After the simulation I felt more confident, sometimes after you do a clinical scenario, you're like, "I need to go study some more", but I actually felt good leaving, like I learned something. **(RN1)**

I think that the simulation experience was amazing. I got to integrate things I thought I didn't know ... it put into perspective that I actually know what I'm doing. **(RN3)**

Next Steps

- Enlarge study with adjustments (*Completed June 2017*)
- Complete Curriculum integration (*Planned October 2017*)

Collaboration

- **Benefits**

- Greater appreciation of each profession's roles and skills
- Sharing ideas for course and curriculum development
- Modeling interprofessional collaboration for students

Collaboration

- **Challenges**

- Scheduling

- Curriculum alignment
 - Time for something new
 - Simulation center

- Scenario development

- Different focus for each discipline

Lessons Learned, so far...

- Challenges & perceived barriers to IPE can be overcome
 - Doing is better than talking
 - Planning & attention to detail is critical
 - Persistence
- Be open to hearing others perspectives & ideas
- IPE & interprofessional research can be positive for students & faculty

THANK YOU!