Simulation-Based Interprofessional Education in a Rural Setting

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Background

- IPE

- High Fidelity Simulation

- Telehealth

Significance

- ❖ IOM – recommendation to incorporate IPE into curriculum

- ❖ Accrediting agencies - identified IPE as essential for education

- ❖ Rural settings -
  - ❖ additional barriers
  - ❖ find creative ways to implement IPE

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Literature Search: Process & Outcomes

▶ Description of Search process

▶ Search Terms

▶ Inclusions and Exclusions

▶ Analysis and Limitations

▶ Synthesis of Literature

Purpose

- To determine feasibility of delivering simulation – based IPE in a rural setting and

- To address the barriers inherent in delivering IPE on a rural campus

PICOT

▶ "Among prelicensure interprofessional education students in a rural setting, can an IPE simulation-based scenario using "remote in" technology enhance collaborative teamwork among team members?"

Definitions

▶ Fidelity

▶ "Remote-in"

Theoretical Framework

STETLER MODEL

Phase1
PREPARATION

Phase2
VALIDATION

Phase3
COMPARITIVE EVALUATION/ DECISION MAKING

Phase 4
TRANSLATION/ APPLICATION

Phase5
EVALUATION

Methodology
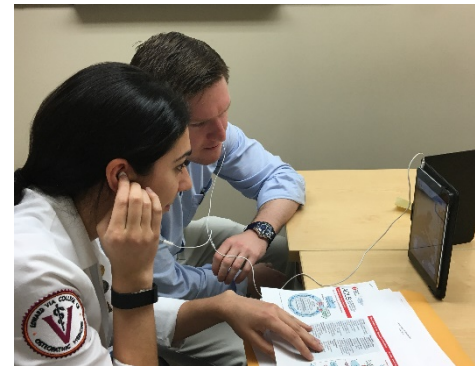
▶ Design

▶ Setting

▶ Sample and recruitment

▶ IRB

Instrumentation

- The Student Perceptions of Interprofessional Clinical Education-Revised
  - **SPICE-R2**

- National League for Nursing (NLN)
  - **Simulation Design Scale**

- Video debriefing Exercise

Simulation-Based IPE Scenario

Quantitative Analysis

- ▶ Descriptive Statistics were used to characterize the sample

- ▶ Wilcoxon signed-rank test

- ▶ T-test

Qualitative Analysis

▶ Thematic analysis

Mixed Methods Analysis

▶ Data integration

▶ Joint display

Results

Four themes were identified

1. Better understanding of technology
2. Improved communication among team members
3. Benefit of true to life experience, and
4. Increased knowledge level and confidence.

Better understanding of technology

▶ 94% reported the scenario resembled a real life situation

▶ 93% felt real life factors, situations, and variables were built into the simulation.

▶ "They like the robot and felt that if they had more practice using it, they would master the learning curve and could embrace technology because this is the future".

Improved communication among team members

▶ t-tests showed significant differences pre and post scenario between pharmacy and nursing students

  ▶ Pharmacy: after scenario, agreed a team approach improves patient outcomes and increased appreciation for others' roles

▶ "Patient care requires a team approach and it is not done in isolation (silos). It requires good communication and this experience allowed for that to happen."

Benefit of true to life experience

▶ 100% of nursing and medical students and 80% of the pharmacy students would recommend this experience

▶ "this should be required… loved it… it was great!"

▶ "This experience allowed me to see the whole picture of the patient… I wish we did more of this… in the past we pretended and role played the other roles, today we observed the other roles first hand".

Increased knowledge level and confidence

- 100% of the groups reported
  - Increased their knowledge and confidence
  - increased trust among the team members

- "because we all relied on one another, it helped us to realize what we know and now I feel prepared for the workforce".
- "the simulation strengthened my trust in other professions, because you got to see three disciplines in one scenario providing team-based care to one patient…and they lived".

Lessons Learned

- ▶ Improve the orientation process
- ▶ Change the simulation scenario
- ▶ Address technical challenges
- ▶ Determine all necessary resources and ensure availability

Limitations

▶ Small sample size – limits generalizability

▶ Pre- and Post with no follow-up - unable to evaluate for retention effect

Implications/Recommendations

- **Nursing Practice/Education**
  - Clinical scenarios designed to enhance students' soft skills
  - Simulation-based scenarios using "remote in" technology
  - IPE experiences tailored to similar educational level
- **Health Policy**
- **Leadership**
- **Future Research**

Sustainability of the project

▶ Strong partnerships

▶ Stakeholder buy-in

Conclusion

▶ Schools using IPE with simulation can better prepare students to work in interprofessional teams delivering safer patient care

▶ IPE is an excellent tool used to promote teamwork and enhance interprofessional attitudes towards one another, and collaborative teamwork has been associated with reduction in medical errors, with a potential to improve patient outcomes.

Dissemination

Article Submission – Submitted

▶ Manuscript – Journal of Interprofessional Care

Abstract Submission - Accepted

▶ USC Lancaster – Faculty Colloquium – September, 2017

Abstract Submission – Under Review

▶ IMSH – Society for Simulation in Healthcare – abstracted submitted for Innovation – January, 2018

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Questions