Title:
Study of an Interprofessional Simulation Intervention to Improve Nurse-Physician Collaboration

Lori J. Pajakowski, DNP, MSN, BSN
Vera Z. Dwyer College of Health Sciences, School of Nursing, Indiana University South Bend, South Bend, IN, USA
Cheryl J Erler, DNP
School of Nursing, Purdue University, West Lafayette, IN, USA

Session Title:
Interprofessional Relationships Using Simulation

Slot:
G 01: Saturday, 18 March 2017: 2:00 PM-2:45 PM
Scheduled Time:
2:20 PM

Keywords:
Interprofessional education, high fidelity simulation and nurse-physician collaboration

References:


Abstract Summary:
This study contributed to the existing body of knowledge supporting the use of interprofessional simulation as an educational tool to improve attitudes toward nurse-physician collaboration in nursing and medical students. The reliability of implementation allows for replication of the intervention in similar training environments.

Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner will be able to verbalize the rationale for using an inter-professional simulation experience as an intervention to improve attitudes toward nurse-physician collaboration.</td>
<td>A summary of studies from the literature review and recommendations from the Institute of Medicine supporting the use of high fidelity interprofessional simulation as an educational intervention to improve collaboration will be discussed. Evidence will be presented in support of the positive effect of a collaborative working relationship on patient safety. Finally, results of the study will be reviewed to demonstrate a statistically significant improvement in attitudes toward nurse-physician collaboration after an interprofessional simulation intervention.</td>
</tr>
<tr>
<td>The learner will be able to describe at least one implication for future research related to inter-</td>
<td>The results of the pre-intervention to three month post-intervention survey data will be discussed with implications for future studies.</td>
</tr>
</tbody>
</table>
professional education based on results of this study.

Specifically, evaluation of repeated interprofessional simulation experiences to determine sustainability of improved attitudes toward nurse-physician collaboration, with and without the combination of didactic interprofessional education.

Abstract Text:

**Purpose:** The purpose of this study was to evaluate for improvement in attitudes toward nurse-physician collaboration in nursing and medical students before and after an interprofessional simulation exercise, and again at three months after the intervention to evaluate for sustainment of results.

**Background and Research Questions:** The need for improved collaboration among healthcare professionals has been identified by both the World Health Organization (WHO, 2010) and the Institute of Medicine (IOM) in the landmark report *To Err is Human* (IOM, 2000). In a follow up report by the IOM, simulation was identified as one strategy for implementation to improve collaboration and teamwork among healthcare providers (IOM, 2004). High-fidelity interprofessional simulation has been used successfully as an educational intervention to improve collaboration in both academic and professional settings (Klipfel, et al, 2011; Maxson, et al, 2011; Reising, et al, 2011, & Sandahl, et al, 2013). Because the studies in the literature review occurred in a variety of settings, including emergency departments, trauma centers, intensive care units, and universities, a study specifically evaluating changes in attitude of nursing students and medical students toward nurse-physician collaboration, after participating in an interprofessional simulation, was determined to be a positive contribution to the existing body of knowledge in this area. An additional gap was identified in the literature relating to the study of whether or not changes in attitudes or perceptions of nurse-physician collaboration are sustained for a predetermined length of time after completing the interprofessional simulation. The research questions for this study were: 1. Will there be a mean change in attitudes toward nurse-physician collaboration from pre- to post-intervention? 2. Will there be a difference in mean attitude toward nurse-physician collaboration between nursing and medical students? 3. Will there be a mean change in attitudes toward nurse-physician collaboration from pre- to three months post-intervention?

**Methodology/Implementation:** A pre-experimental, pretest-posttest design was used to measure changes in attitude toward collaboration. The Jefferson Scale of Attitudes Toward Physician-Nurse Collaboration (JSAPNC) was chosen as the instrument of measurement for the ability to measure attitudes toward nurse-physician collaboration in medical students and nursing students (Liaw, et al, 2014). A high-fidelity simulation exercise was used with five standardized scenarios in a realistic patient care environment. A standardized debriefing session was facilitated by trained faculty members after each scenario. A convenience sample of seventh semester nursing students and third year medical students participated in all five scenarios and debriefing sessions.

**Results:** A statistically significant improvement in attitudes toward nurse-physician collaboration was found between pre-intervention and post-intervention surveys (t(130) = -5.569 with a p-value of .000), with no significant difference found between nursing and medical students at any of the three data collection points (pre-intervention data: t(129) = .439, p=.662; post-intervention data: t(21.79) = .610, p=.548; and three month post-intervention data: t(8.69) = 1.89, p=.092). Comparison of means from both pre-intervention and post-intervention data collection points to the three month post-intervention data collection point resulted in statistically significant decreases in the mean JSAPNC. Therefore it can be concluded that the improvement seen in attitudes toward nurse-physician collaboration immediately after the interprofessional simulation were not sustained over time.

**Conclusions and implications:** The results of this study provide strong evidence for the use of interprofessional simulation as an educational tool to improve attitudes toward nurse-physician
collaboration in nursing and medical students. The strength of the results of this study from pre to post intervention, as well as the reliability of implementation to the intervention plan, allows for replication of this high-fidelity interprofessional simulation in similar training environments. However, knowledge gained from this study indicates that an isolated interprofessional simulation exercise is not enough to sustain collaborative practice. Further studies of repeated interprofessional simulation intervention, as well as interprofessional simulation intervention combined with didactic interprofessional education, are recommended to evaluate sustainment of attitudes toward collaboration.