Interprofessional Simulations: Student Attitudes and Effects on SBAR Performance

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Background

Communication failures are the leading root cause of medication errors, delays in treatment and wrong-site surgeries (Institute of Medicine, 2003; Joint Commission on Accreditation of Healthcare Organizations, 2005).

Collaborative interprofessional learning is a core educational requirement cited by numerous expert groups and national organizations including the Institute of Medicine (IOM, 2003), the Quality and Safety Education for Nurses (QSEN) Institute (Cronenwett, Sherwood, & Gelman, 2009), the Interprofessional Education Collaborative Expert Panel (2011) and the Magnet program of the American Nurses Credentialing Center. In the Agency for Healthcare Research and Quality (AHRQ) publication Patient Safety and Quality: An Evidence-Based Handbook for Nurses (2008), chapters are devoted to communication and collaboration as well as the use of simulation in nursing education to enhance patient safety. A means of standards interprofessional communication, such as the Situation, Background, Assessment, and Recommendation (SBAR) framework, is suggested as an evidence-based model for communication education. Additionally, educational preparation using interprofessional simulation is listed as the preferred educational strategy to teach teamwork skills.

Purpose

The Interprofessional Simulation Project investigated the use and impact of interprofessional clinical simulation between senior nursing students and surgical residents. Two research questions were posed: (a) does interprofessional clinical simulation improve nurses’ skills in communication knowledge and performance, and as compared to traditional simulation, and (b) does interprofessional clinical simulation improve teamwork attitudes.

SBAR Knowledge & Performance Methods

A quantitative pre-, post-, and retention test design using the SBAR Knowledge Test, examined changes in skilled communication knowledge between the traditional and interprofessional (IPE) simulation groups of senior nursing students. A comparative post-test only design using the SBAR Observed Behavior Checklist Tool, examined differences in performance between the traditional and interprofessional simulation groups of senior nursing students. Table 1 displays the sample demographics.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Male (%)</th>
<th>Female (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>11 (55)</td>
<td>10 (45)</td>
<td>21 (40)</td>
</tr>
<tr>
<td>IPE</td>
<td>16 (61)</td>
<td>9 (39)</td>
<td>25 (48)</td>
</tr>
</tbody>
</table>

Results

The bar graph below shows the IPE simulation intervention elicited statistically significant changes in SBAR knowledge test scores over time with increases from posttest to retention test, and from pretest to retention test, but not from pretest to posttest. The traditional simulation intervention did not elicit statistically significant changes in SBAR knowledge test scores over time.

Teamwork Attitudes Methods

A quantitative pre- and post-test design using the Interprofessional Team Simulation Training Tool investigated attitudes towards collaboration for both the nursing students and surgical residents. Table 2 displays the sample demographics.

<table>
<thead>
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<th>Female (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>11 (40)</td>
<td>11 (40)</td>
<td>22 (40)</td>
</tr>
<tr>
<td>IPE</td>
<td>10 (40)</td>
<td>11 (40)</td>
<td>21 (40)</td>
</tr>
</tbody>
</table>

As part of the interprofessional simulation training post-assessment, students reported levels of agreement on their understanding of key learning objectives. All 7 items had statistically significant changes on paired t-tests. The largest change occurred in understanding of interprofessional communication skills, such as Shared mental model, and Knowledge of SBAR. The next largest changes were in understanding of factors.

Conclusions

1. Skilled communication knowledge may be impacted by IPE simulation, but there are other factors that may influence this knowledge, such as clinical experience.

2. IPE simulation was found to increase understanding of communication skills and the benefits of using SBAR within teams.

3. This study was unable to demonstrate significant differences in performance of skills in communication behaviors between the simulation groups. Inter-rater reliability for the utilized tool needs to be further established as it may have been influenced by a number of factors.

4. Nursing students require more opportunity for practicing SBAR skills and using IPE simulation may be one way to provide a safe environment in which to practice.

5. This project demonstrated that interprofessional student teams can have significant attitudinal shifts while practicing and observing important team skills as a result of IPE simulation.

References


