Effects of Simulation on Promoting Caring Ability of Japanese First-Year Undergraduate Nursing Students

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Background

Simulation has been internationally recognized as an effective and innovative teaching approach in nursing education.

The effectiveness and importance of simulation in nursing education has been rapidly acknowledged in Japan.

Simulation courses in Japan are mainly provided for either sophomore or junior year nursing students and these courses emphasize the instruction of communication and medical-surgical nursing skills.

There was no study addressing the simulation instruction for freshman students currently.

We attempted to develop a simulation scenario for first-year nursing students to help them learn the fundamental nursing skills required for ensuring patients' safety as well as improve their caring ability.

The emphasis was primarily placed on enhancing their awareness of the patient and the environment.

Methods

Design: A descriptive qualitative research

Methods

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Simulation

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Simulation Design

Upon completion of the simulation instruction, students will be able to:

1. Use basic communication skills to understand the condition and environment of a patient and be attentive to his or her safety issues and comfort (affective domain)
2. Identify the safety issues regarding a patient's condition and further intervene effectively to ensure his or her safety and comfort (cognitive and psychomotor domains)
3. Reflect upon the learning that occurred during the simulation scenario and comprehend the importance of caring (affective domain).

Pre-scenario Learning Activities

- A basic lecture and practice sessions for safety management and providing comfort to a patient in a clinical setting.
- A reading assignment using a poem named "Listen Nurse" to encourage students to ponder the meaning of caring.
- An assignment required students to watch a three-minute film with lots of situational elements regarding safety issues or lack of caring for the patient. In this assignment, students were asked to identify the conditions that may endanger a patient's safety and comfort and discuss potential interventions.

Simulation

A standardized patient who acted as an 80-year-old male patient who is diagnosed with pneumonia and bedridden.

Two simulation scenarios, both of which included 7-8 conditions that may endanger a patient's safety and comfort and lack of caring for a patient.

Simulation Results

- Approximately 60 students attended each simulation session. These students were divided into 10 groups with each one consisting of 6 students. We randomly selected two groups to perform the demonstration. Simultaneously, two students in each group were designated to play the role of nurse, while the other four participated as an observer providing suggestions. In the meantime, the rest of the groups of students observed the simulation demonstration and joined a group discussion in a debriefing session.

Data Collection and Analysis

Data: students' post-simulation assignment asking what they have learned in the class and how they expect themselves to improve nursing skills.

Analysis: Using the Text Mining Software to explore what kind of words (Japanese Dependency Structure Sentences) frequently appeared in their assignments.

The necessary IRB approval from the researchers' affiliated university was obtained prior to conducting this study.

Results

99 students participated in the research.

The results of analysis demonstrated the top five dependency structure sentences in the assignments (Table 1 & 2).

Table 1: Top 5 Frequently Seen Dependency Structure Sentences in the Students` Assignment about "What They Have Learned in the Simulation Activity"

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Frequency</th>
</tr>
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<tbody>
<tr>
<td>1. We must verify a patient's identity</td>
<td>24.2</td>
</tr>
<tr>
<td>2. We must study hard to learn necessary skills</td>
<td>24.2</td>
</tr>
<tr>
<td>3. We must study how to do a nurse</td>
<td>20.3</td>
</tr>
<tr>
<td>4. We should talk to a patient</td>
<td>19.3</td>
</tr>
<tr>
<td>5. We should learn more about skills for a patient's safety and comfort</td>
<td>19.3</td>
</tr>
</tbody>
</table>

Table 2: Top 5 Frequently Seen Dependency Structure Sentences in the Students' Assignment about "How They Appraise Themselves to Improve Their Caring Ability"

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Try to pay more attention to a patient's weakness</td>
<td>12.1</td>
</tr>
<tr>
<td>2. Study harder to prepare for the actual clinical practice</td>
<td>11.3</td>
</tr>
<tr>
<td>3. Make more efforts to acquire nursing skills and knowledge as well as a professional attitude</td>
<td>9.1</td>
</tr>
<tr>
<td>4. We should talk to a patient</td>
<td>8.1</td>
</tr>
<tr>
<td>5. Think about how to overcome our own weaknesses</td>
<td>6.2</td>
</tr>
</tbody>
</table>

About 30% of respondents reported that the first and utmost important thing for caring a patient is “awareness”.

Conclusion

Through experiencing this simulation activity, the first-year nursing students:

- had a hands-on experience to understand very basic things in safety management for a patient such as checking a patient’s name.
- understood how important to have and raise their knowledge and skill levels in order to ensure a patient’s safety.
- recognized the importance of “awareness” in order to care for a patient.
- motivated for further learning as a nursing student.