

**45th Biennial Convention (16-20 November 2019)**

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

**Maki Fujikawa, MED, RN**

Miwako Hoshi, PhD, RN

Chihiro Tanaka, MSN

Yuko Nishida, MSN

Misako Yoshitake, MSN, RN

Takumi Yoshino, MSN, RN

*School of Nursing, Fukuoka Jo Gakuin Nursing University, Koga, Fukuoka, Japan*

**Backgrounds:**

Simulation has been internationally recognized as an effective and innovative teaching approach in nursing education. It provides a safe, active, and hands-on experience for learners. For nursing students, simulation experiences not only reduce their level of anxiety, but also significantly increase their self-confidence. Moreover, due to the shortage of clinical settings in Japan, simulation serves as an ideal replacement for clinical practices in which students will have more opportunities to learn knowledge and skills they need.

The effectiveness and importance of simulation in nursing education has been rapidly acknowledged in Japan, and currently many nursing programs has incorporated some aspects of simulated activities into their classes. After reviewing related literature, we found that simulation courses in Japan are mainly provided for either sophomore or junior year nursing students and these courses emphasize the instruction of communication and technical skills of adult health nursing. There was no study addressing the simulation instruction for freshman students currently. Furthermore, although there was a study indicating the promising use of a pediatric nursing simulation course on promoting students' caring ability, the researchers of this study did not intend to design this course as a "caring-ability building" course.

In this study, 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 and improve their caring ability. Since the simulation was designed for freshmen, its emphasis was primarily placed on enhancing their awareness about the patient and the environment. Participating students were expected to broaden their nursing perspectives after receiving the simulation training.

**Purpose:**

The purpose of this study was to demonstrate how we design a simulation activity attempting to integrate caring capacity into fundamental nursing skills as well as to evaluate the effectiveness of the simulation for the first-year undergraduate nursing students in Japan.

**Methods:**

**Participants:**

A hundred and twenty-one first-year nursing students participated in the study. These students received the simulation training at the end of the first semester in which the

courses they took included the *Fundamental Nursing Concepts, Human Caring,* and *Basic Nursing Skills*. Prior to this study, participating students did not have any practical experiences in a clinical setting.

### **Simulation Design;**

Learning objectives of the simulation training were addressed from three domains. Specifically, 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).

We designed several pre-scenario learning activities. First, we offered a basic lecture and practice sessions designed to train students to be aware of hidden dangers, manage to ensure safety for a patient, and provide comfort to a patient in a clinical setting. Second, we provided students with a reading assignment which is a poem named "Listen Nurse" written by a patient to encourage students to ponder the meaning of caring. Students were also requested to analyze whether specific behaviors demonstrated by the nurse in the poem could be viewed as caring and the rationale behind their thoughts. Third, we made a three-minute film using a mannequin as a patient and assigned students to watch it before coming to the simulation. In the film, there were lots of situational elements regarding safety issues (e.g., placing a patient in a high-raised bed without using side rails, incorrect name on the patient identification plate on the bed, displacing a nurse call button far from a bed) or the lack of caring for the patient (e.g., placing an empty glass or leaving meals on a bedside table). Students were asked to identify the conditions that may endanger a patient's safety and comfort and discuss potential interventions.

In this study, we developed two simulation scenarios, both of which included 7-8 conditions. Among these conditions, some were presented in accordance with the plots in the poem or the film used for the assignments so that students could apply what they have considered and discussed earlier to the simulation. In terms of the actual simulation, we used a standardized patient who acted as an 80-year-old male patient who is diagnosed with pneumonia and bedridden.

### **Simulation Learning Sessions:**

Approximately 60 students attended each simulation session. These students were divided into 10 groups with each one consisting of 6 students. To reduce students' anxiety resulted from their first simulation training, we randomly selected two groups to perform the demonstration. Specifically, 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 nine groups of students observed the simulation demonstration and joined a group discussion in a debriefing session.

### **Research Design:**

A descriptive qualitative research with content analysis methods was employed in this study.

### **Data Collection and Analysis:**

After the simulation, there was a post simulation assignment which requested students to reflect on their simulation learning experiences and thoughts about caring. We analyzed the contents of each student's assignment using the Text Mining Software to explore the critical perspectives regarding their learning experiences, such as what they have learned in the class, what they thought of their strengths and weaknesses, and how they expect themselves to improve nursing skills.

**Results:**

Analysis of the data has been in progress and will be completed by spring 2019.

**Implications:**

This is our first attempt to design a simulation scenario aimed at promoting nursing students' caring ability and basic nursing skills that ensure patients' safety. We expect that results of this study would not only contribute to the theory and practices of simulation education characterized by its integration of cognitive, psychomotor, and affective objectives, but also improve first-year nursing students' expertise and caring ability. The teaching model provided in this study would also serve as an important reference that helps researchers to build an effective and powerful simulation training for undergraduate nursing students in Japan.

---

**Title:**

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

**Keywords:**

Simulation, caring and undergraduate students

**References:**

- Eggenberger, S.K., Regan, M. (2010). Expanding simulation to teach family nursing. *Journal of Nursing Education*, 49(10), 550-558
- Jonston, R. (1971). Listen, Nurse. *American Journal of Nursing*, 71(2), 303
- Kuzuba, M. & Fujiwara, M. (2017). Review of literature on the current situation of simulation education and its effect in basic nursing education in Japan, *Nursing Journal of Osaka Aoyama University*, 1, 9-20.
- Matsuzawa, A., Shiroki, Y., & Tsuda, S. (2017). Issues of simulation-based learning for undergraduate pediatric nursing students: A literature review. *Japan Journal of Academy of Nursing Science*, 37, 390-398.
- Sideras, S., McKenzie, G., Noone, J., Markie, D., Frazier, M., & Sullivan, M. (2013). Making simulation come alive: Standardized patients in undergraduate nursing education. *Nursing Education Perspectives*, 34(6), 421-425
- Tamaki, T., Inumaru, A., Yokoi, Y., Tomita, M., Kido, M., Ohno, Y., & Tsujikawa, M. (2017). Development and evaluation of a terminal care simulation scenario for nursing

students: Randomized controlled trial using the flow-experience checklist. *Japan Journal of Academy of Nursing Science*, 37, 408-416.

Tamura, Y., & Okamoto, T. (2013). A Simulation Training that cultivates Caring in Pediatric Nursing. *A Journal of Nursing Health Science Research*, 14(1), 147-154

Ulrich, B., & Mancini, B. (2014). Mastering simulation: A handbook for success. Indianapolis, IN; Sigma Theta tau International

Yoshino, T., Hoshi, M., Fujikawa, M. & Yoshitake, M. (2018). Issues and challenges of using simulation in fundamental nursing: Lessons learned from an undergraduate nursing program in the United States. *Bulletin of Fukuoka Jo Gakuin Nursing University*, 8, 53-62.

### **Abstract Summary:**

This study demonstrates a simulation scenario designed for the first year Japanese nursing students to foster caring ability in addition to training basic nursing skills for ensuring a patient's safety. Evaluation of its usefulness and effectiveness would be also discussed.

### **Content Outline:**

#### I. Introduction

Background about simulation education and current issues in Japan

#### II. Purpose of the study

#### III. Methods

##### 1. Participants

##### 2. Simulation Design

##### 1) Learning Objectives of the simulation activity

##### 2) Pre-scenario Learning Activities

##### 3) Simulation Scenarios

##### 3. Simulation Learning Sessions

##### 4. Research Design

##### 5. Data Collection and Analysis

#### IV. Results

#### V. Conclusions and Implications

### First Primary Presenting Author

#### **Primary Presenting Author**

Maki Fujikawa, MED, RN  
Fukuoka Jo Gakuin Nursing University  
School of Nursing  
Assistant Professor  
Koga, Fukuoka  
Japan

**Author Summary:** Ms. Fujikawa is currently an assistant professor in Fukuoka Jo Gakuin Nursing University. She teaches classes in Fundamental nursing such as Basic Nursing Skills and Fundamental Nursing Clinical Practice.

Second Secondary Presenting Author

***Corresponding Secondary Presenting Author***

Miwako Hoshi, PhD, RN  
Fukuoka Jo Gakuin Nursing University  
School of Nursing  
Professor  
Koga, Fukuoka  
Japan

**Author Summary:** Dr. Hoshi is currently a professor in Fukuoka Jo Gakuin University. She teaches classes mostly related to fundamental nursing and nursing management. Her research interest is self-transcendence and well-being, nursing education, and nursing management.

Third Secondary Presenting Author

***Corresponding Secondary Presenting Author***

Chihiro Tanaka, MSN  
Fukuoka Jo Gakuin Nursing University  
School of Nursing  
Assistant Professor  
Koga, Fukuoka  
Japan

**Author Summary:** Ms. Tanaka is currently working as an assistant professor at the Fukuoka Jo Gakuin Nursing University. She teaches classes and clinical practice related to fundamental nursing.

Fourth Secondary Presenting Author

***Corresponding Secondary Presenting Author***

Yuko Nishida, MSN  
Fukuoka Jo Gakuin Nursing University  
School of Nursing  
Assistant Professor  
Koga, Fukuoka  
Japan

**Author Summary:** Ms. Nishida is currently working as an assistant professor at Fukuoka Jo Gakuin Nursing University. She is mainly teaching classes related to fundamental nursing, such as Introduction of Nursing Concepts, Basic Nursing Skills, Physical Assessment, and Clinical

Practice. Her research interests are about Japanese nurse practitioners including nature and characteristics of work, clinical judgment and decision making skills.

Fifth Secondary Presenting Author

***Corresponding Secondary Presenting Author***

Misako Yoshitake, MSN, RN  
Fukuoka Jo Gakuin Nursing University  
School of Nursing  
Associate Professor  
Koga, Fukuoka  
Japan

**Author Summary:** Ms. Yoshitake is currently an associate professor mainly teaching classes in Fundamental Nursing. She teaches the class of Physical Assessment, Basic Nursing Skills, and Human Caring 2 which is a unique course focusing on caring in the Fukuoka Jo Gakuin University.

Sixth Secondary Presenting Author

***Corresponding Secondary Presenting Author***

Takumi Yoshino, MSN, RN  
Fukuoka Jo Gakuin Nursing University  
School of Nursing  
Assistant Professor  
Koga, Fukuoka  
Japan

**Author Summary:** Mr. Yoshino is currently an assistant professor in Fukuoka Jo Gakuin Nursing University. He teaches classes in Fundamental Nursing such as Basic Nursing Skills, Physical Assessment, and Clinical Practice.