

Simulation Training for Therapeutic communication

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Abstract

The purpose of the study was to investigate the effects of a therapeutic communication simulation scenario development program on critical thinking, self-efficacy for learning, and education satisfaction in nursing students. A total of 61 students were recruited from Kangwon National University, Kangwon, Korea. The program was conducted in a total of six sessions, three times a week for two weeks. A scenario has been developed by a group that consisted of 5~6 persons. They applied an actual situation at the practice field based¹ on the learning goals for therapeutic communication and theories of education contents. There were statistical significant increase in critical thinking ($t=6.04$, $p<0.001$), self-efficacy for learning ($t=2.07$, $p=0.043$), and education satisfaction ($t=3.79$, $p<0.001$). These results suggest that an simulation-based training could be used as a practical program for nursing students to improve critical thinking, self-efficacy for learning and education satisfaction.

Keywords: *Simulation, Communication, Training*

1. Introduction

Recently, the nursing field requires not only the theoretical knowledge necessary for the nursing performance of a new nurse, but also the nursing competency as a professional nurse. Clinical training is an essential curriculum to equip core competencies relevant to nursing by practicing knowledge, skills, and attitudes learned through theoretical training courses in the nursing field [1]. The requirements for nursing care quality and safety of the patients have been emphasized; however, the clinical training for the nursing students is limited, and only noninvasive practices, such as vital signs and observation, have been conducted [2].

The lack of acquisition of professional roles in practical training may have a negative impact on the nursing students, such as the lack of confidence and feeling of helplessness. Furthermore, the new nurse may also experience difficulty in adjusting to the field and lack the required clinical nursing competency [3]. Practical training for psychiatric nursing is more difficult for the students to apply what they have learned theoretically to the training field than when the training is performed to the patients with physical problems. According to the previous studies, the nursing students frequently experience anxiety, fear, and negative attitude during the practical training for psychiatric nursing [4]. As a result, they have difficulties in building a therapeutic relationship with a patient or learning more on psychiatric nursing [5].

In order to reduce the problem caused by the detachment between theoretical training and practical training, nurse educators are looking for ways to improve the nursing education. Simulation-based education is a class designed to mimic real-life situations by utilizing multimedia technology, standardized manikins, and standardized patients. This

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gives an opportunity for the nursing students to infer clinical problems, and to make a clinical decision without imposing any risk on the patients [6].

In the psychiatric nursing area, due to the absence of standardized manikins that can integrally respond, the simulation training is mainly performed using standardized patients [7]. This maximizes the learning effect by reducing the anxiety regarding psychiatric nursing practice because the students are provided with practical training in free and comfortable environments [8]. In addition, it has been recognized as an education method that can increase the adaptability and agility required in the clinical field, since the students can understand the internal psychological state of the patients and communicate with them [9].

Based on the research that applied a simulation to the psychiatric nursing field in South Korea, only two studies have been conducted, such as the study that investigated the effects of practical training of psychiatric nursing on standardized patients with depressive disorder [10], and the study that verified the effects on self-directed learning, self-efficacy for learning, and education satisfaction by utilizing standardized patients for psychiatric nursing assessment training [7]. For this reason, further studies need to be conducted.

Therefore, this study aims to conduct a training on developing a scenario regarding therapeutic communication simulation by using standardized patients to increase the interaction between the nursing students and the psychiatric nursing patients, help them overcome difficulties in therapeutic communication, and provide basic data of psychiatric nursing training by verifying its effects.

2. Study Methods

2.1. Study Participants

This is a quasi-experimental study of a single group pre-post design to evaluate the effectiveness of a training program. The subjects include senior students who enrolled in a nursing school located in the Kangwon province, and completed 4 credits of theoretical course and 2 credits of practical training. When the sample size was calculated by using the G power 3.1.2 program with a medium effect size of 0.5, a statistical power of 95%, and a significance level of .05, 45 subjects were required. However, when considering the drop-out rate, 63 persons were selected.

2.2. Study Instruments

2.2.1. Critical Thinking

Critical thinking is also called critical analysis. It means clear and rational thinking and reasoned judgments. According to the National Council for Excellence in Critical Thinking, critical thinking is defined intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and evaluation information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action [11].

Many educational leaders recognized that a curriculum aimed at building critical thinking skills would benefit the individual learner, the community, and the entire democracy. Critical thinking is important in academics because of being significant in learning [12].

In order to measure critical thinking, the instrument for the measurement of critical thinking disposition, which was developed by Yoon [13], was utilized. It consisted of 27 questions in 7 dimensions of intellectual passion, curiosity, prudence, confidence, systematicity, intellectual fairness, healthy skepticism, and objectivity. Each item corresponded with the 5-point Likert scale (strongly disagree, disagree, neither, agree, strongly agree), wherein the higher the score, the higher the critical thinking ability.

Internal consistency (Cronbach's α) that represented the reliability upon developing the instrument was 0.84; however, it was 0.86 in this study.

2.2.2. Self-Efficacy for Learning

Self-efficacy is the belief in one's abilities, or the level of confidence that people have in their capability to succeed at a task. These beliefs play a significant role in determining the choices people make. Also it is important to perform tasks, to persist their effort in the face of challenge and to complete their motivation [14].

Previous study showed that those who have high self-efficacy achieved better academic performance than those who have low self-efficacy. It means that confident individuals typically made control over their own learning experiences. Also they were more likely to attend in class, and shied away from academic interactions. Furthermore, those with high self-efficacy will attribute the result to rich mathematical ability [15].

In order to measure self-efficacy for learning, an instrument for measuring self-efficacy for learning, which was developed by Ayres [16] and modified by Kim and Kim [7], was used. The instrument consisted of 10 questions with a 4-point Likert scale (strongly disagree, disagree, agree, strongly agree), wherein the higher the score, the higher the self-efficacy for learning. Internal consistency (Cronbach's α) that represented the reliability upon developing the instrument was 0.94; however, it was 0.90 in this study.

2.2.3. Learning Satisfaction

Recently the role of students in the classroom have switched from that of passive receiver to that of active learner. This is a new learning paradigm that university professors are gradually adopting. In the new paradigm's constructivist approach, students take responsibility for their own learning by participating themselves in knowledge concoction [17].

Learning satisfaction is the subjective perceptions of how well a learning environment supports academic success. Strong learning satisfaction implicates that suitably challenging instructional methods are serving to prompt students' thinking and learning. Significant elements in learning satisfaction are likely to respect the role of the instructor and of the students [18].

In order to measure learning satisfaction, an instrument for measuring learning satisfaction, which was developed by Jeffries [19] and translated by Park [10], was used. The instrument consisted of 8 questions with a 5-point Likert scale (strongly disagree, disagree, neither, agree, strongly agree), wherein the higher the score, the higher the learning satisfaction. Internal consistency (Cronbach's α) that represented the reliability upon developing the instrument was 0.94; however, it was 0.89 in this study.

2.3. Intervention

The experimental intervention was conducted in a total of six sessions, three times a week for two weeks. One session, which lasted for 4 hours, was divided into two that resulted in 2 hours each. A scenario has been developed by a group that consisted of 5~6 persons. They applied an actual situation at the practice field based on the learning goals for therapeutic communication and theories of education contents.

The development details included the therapeutic (verbal and non-verbal) communication scenario, evaluation standard table, guidelines for standardized patients and simulation situations, and debriefing items, among others.

In order to develop a scenario on therapeutic communication by utilizing standardized patients, theoretical training was carried out with regard to guidelines on practical training by using standardized patients, basic concept of scenario, modeling method, scenario examples, utilization method, effective therapeutic communication skills, and effective communication barriers, among others. A subject of a scenario that involved a patient

with schizophrenia, who showed the highest admission rate in the inpatient ward, was recommended by the director of the nursing service at a psychiatric hospital. The major content of the simulation situation was the process at which the nursing student applied the therapeutic communication skills to a patient, who was readmitted for schizophrenia, during practical training at the psychiatric department. In order to understand schizophrenia and analyze the concepts on the typical cases, a literature review was conducted by each team.

The cases were analyzed based on the literature review, and then a draft of the scenario was prepared. After the team members were well-acquainted with the draft, they modified and supplemented the scenario while taking turns in playing the role of the standardized patient and the student. After the simulation evaluation was performed based on the evaluation standard table that targeted all of the students, the second modification on the scenario was done, which reflected the feedback of the other students.

The scenario was finally modified after its validity was reviewed by a psychiatric nursing professor. The evaluation on practical training for all of the students was conducted. For the evaluation, the students shared their opinions on which part was difficult when developing a scenario, how they solved the problem, and what was done right and wrong while they performed the scenario by utilizing their nursing skills. The program was completed after discussing whether or not the developed scenario could be applied to the actual nursing field.

2.4. Data Analysis

The data were analyzed by using the SPSS 18.0 program as follows. First, in order to analyze the subject's general characteristics, the frequency, percentage, and the mean and standard deviation were presented. Second, in order to analyze the differences in the subject's critical thinking, self-efficacy for learning, learning satisfaction before and after the program implementation, and paired-t-test were employed.

3. Results

3.1. General Characteristics of the Participants

In terms of the gender of the subjects, the majority were women, which consisted of 54 female subjects (88.5%) with the mean age of 22.2 years old, and 34 subjects (55.7%) with no religious affiliation. With regard to self-reported academic performance, 46 subjects (75.5%) answered higher than 'middle', while 58 subjects (95.1%) had higher than 'average' satisfaction with their major. More than 59 subjects (96.7%) showed higher than 'average' satisfaction with the clinical training (Table 1).

Table 1. General Characteristics of Participants (N=61)

| Characteristics | Categories | n(%) |
|------------------------------------|--------------|------------|
| Gender | Male | 7(11.5) |
| | Female | 54(88.5) |
| Age (years) | 21-25 | 60(98.4) |
| | > 26 | 1(1.6) |
| | Mean (SD) | 22.2(1.30) |
| Religion | Yes | 27(44.3) |
| | No | 34(55.7) |
| Self-reported academic performance | High | 9(14.8) |
| | Moderate | 37(60.7) |
| | Low | 15(24.6) |
| Major Satisfaction | Satisfied | 20(32.8) |
| | Moderated | 38(62.3) |
| | Dissatisfied | 3(4.9) |
| Satisfaction of clinical practice | Satisfied | 20(32.8) |
| | Moderated | 39(63.9) |
| | Dissatisfied | 2(3.3) |

3.2. Differences in Dependent Variables

The differences before and after the program implementation in critical thinking, self-efficacy for learning, and education satisfaction were shown in Table 2. The mean critical thinking increased from 3.48 ± 0.27 points before the program implementation to 3.81 ± 0.35 points after the program implementation. The difference was statistically significant ($t = 6.04, p < .001$). The mean self-efficacy for learning increased from 3.88 ± 0.46 points before the program implementation to 4.04 ± 0.37 points after the program implementation. The difference was statistically significant ($t = 2.07, p = .043$). Furthermore, the mean education satisfaction increased from 3.49 ± 0.41 points before the program implementation to 3.81 ± 0.48 points after the program implementation. The difference was statistically significant ($t = 3.79, p < .001$).

Table 2. Difference of Dependent Variables between Pre-test and Post-Test (N=61)

| Variables | Pre-test | Post-test | Differenc | t | p |
|----------------------------|-----------|-----------|--------------|------|------|
| | Mean±SD | Mean±SD | e Mean±SD | | |
| Critical thinking | 3.48±0.27 | 3.81±0.35 | 0.32±0.42 | 6.04 | .000 |
| Self-efficacy for learning | 3.88±0.46 | 4.04±0.37 | 0.16±0.60 | 2.07 | .043 |
| Education satisfaction | 3.49±0.41 | 3.81±0.48 | 0.32±0.66 | 3.79 | .000 |

4. Discussion

This study was performed in order to confirm the effects of a training program that utilized a simulation scenario with standardized patients on the nursing students' critical thinking, self-efficacy for learning, and educational satisfaction.

The education effect was verified based on the significant increase of critical thinking after the program implementation. The result was similar to the outcome of the study that carried out a simulation training for nursing in pediatric patients with febrile seizures by

using standardized patients [20] and the study that carried out a simulation training by using standardized patients on the topic of blood transfusion nursing [21]. Such a result has been forecasted because the program offered opportunities of training for the students to improve their critical thinking competency by collecting, analyzing, combining, and reasoning with regard to the information necessary for applying appropriate communication skills to the actual practice. In order to adequately deal with the rapidly changing medical culture and different responses of the patients, it is important for the nurses to foster critical thinking competency [22]. It increases the problem solving skills necessary for a nurse to make the right decision in clinical situations [23].

A previous study discussed 7 critical thinking skills: analyzing (separating or breaking a whole into parts to find out their nature, functional and relationships), applying standards (judging according to rendered personal, professional, or social rules or criteria), discriminating (observing differences and similarities among things or situations and separating carefully as to category or rank), information seeking (looking up evidence, facts, or knowledge), logical reasoning (searching inferences or conclusions that are sustained in justified by evidence), predicting (picturing a plan and its consequences), transforming knowledge (shifting and switching the condition, nature, form or function of concepts among contexts) [24].

The result of this study showed that the implementation of the training program was effective on the improvement of the nursing students' self-efficacy for learning. This result was similar to the outcome of a study that applied a simulation training to standardized patients with depressive disorder [10], and with the outcome of a study that performed psychiatric nursing simulation training for psychiatric nursing assessment training [7]. Self-efficacy for learning is a process that enables the students to accurately perform what they have learned [25]. It also has a negative correlation with anxiety that they experienced during their clinical training [26]. In addition, Brown, Ganesan, and Challagall [27] reported that the learners with higher self-efficacy for learning gather and classify more information during the learning process, thereby demonstrating a higher work competency. In order to enhance clinical practice competency and improve the nursing students' self-efficacy for learning, the simulation training that induces the students' active participation in educational activities and more comfortable environments must be actively employed.

In this study, the training program that utilized simulation was found to be significantly effective on increasing the education satisfaction of the nursing students. This result was similar to the outcome of a study wherein the education satisfaction increased after the nursing simulation training for stroke patients [28], and with the outcome of a study wherein the score in the area of education satisfaction was the highest after the nursing simulation training for the patients with upper gastrointestinal bleeding [29]. It was reconfirmed in this study that education satisfaction was high because the training that used the simulation provided opportunities for the students to repeatedly learn until they master their communication skills, direct nursing skills, self-reflection, and feedback receptivity for rectifying nursing errors and preparing for sufficient nursing competency [28, 30]. Recent researches reported that student's satisfaction is related to teamwork, team performance and collaborative learning [31], or concerning satisfaction with learning courses [32]. A previous study showed a review of various studies. It emphasized the strong positive significant correlations between learning motivation and learning satisfaction [33]. Another previous review suggested six factors of learning satisfaction: teacher, course content, teacher's teaching, class materials and the quality and setting of the course [34]. Therefore, nursing educators must be interested in the development of simulation activity programs in order to increase the nursing students' education satisfaction even during the psychiatric nursing training.

This study has its significance in the following points. First, the effects of the simulation scenario development training process on critical thinking, self-efficacy for

learning, and education satisfaction in the nursing students were verified. Second, the basic data on an effective educational method for the nursing students were provided to the nursing educators. However, this is a single-group pre-post design study that focused on the nursing students in one university, and caution is required during the observation of the effects. Moreover, repetitive studies need to be performed in order to increase the explanatory power by conducting experimental studies with a control group in the future.

5. Conclusion

Considering that learning and practicing knowledge and skills are important for nursing students, a therapeutic communication simulation scenario development program can be a beneficial option for improving knowledge and skills in nursing students. Our findings show the significant effects of a therapeutic communication simulation scenario development program using standardized patients on critical thinking, self-efficacy for learning, and education satisfaction among the nursing students. Future research should investigate and compare the effects of different situations on psychiatric nursing. Additional research is also needed to explore the effects of simulation program on various valuables. It is also recommended that other learning instruments to be used in future studies.

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