



## Research article

# Pre-service nurses' experiences of simulated health education classes: A phenomenological study

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## ABSTRACT

With the growing demand for health education, enhancing nurses' ability to deliver such education is vital. This phenomenological qualitative study, employing convenience sampling, investigates pre-service nurses' experiences in simulated health education classes. The study included 32 fourth-year pre-service nurses from the Department of Nursing at a South Korean university. Between April 20 and June 30, 2022, these participants documented their perceptions of the simulated classes in self-reflection journals. The researcher utilized the phenomenological research method as proposed by Colaizzi (1978) to analyze the data. The findings suggest that simulated health education classes offer an opportunity to bolster pre-service nurses' practical knowledge, fostering their growth as nursing educators. The pre-service nurses reported gaining confidence in their roles as educators and enhancing their professionalism through these simulated classes. Therefore, as public health promotion becomes increasingly crucial and the demand for health education rises, simulated health education classes serve as a valuable adjunct to teaching methods in health education.

## 1. Introduction

Health education aims to provide essential health information, enabling individuals to acquire accurate health knowledge and develop skills to maintain their well-being. Nurses, as the largest group of healthcare providers [1], play a pivotal role in delivering health education, effectively fulfilling the health education needs of patients. Furthermore, health education is a fundamental and critical aspect of nursing—it significantly influences the quality of nursing care [2]. Consequently, nursing education institutions bear the responsibility of effectively incorporating health education into the curriculum for pre-service nurses. This ensures that they are equipped with the necessary knowledge, skills, motivation, and confidence [3]. Health education competency refers to the ability to efficiently manage and execute all vital processes involved in health education. This includes adapting to and responding to changes in health conditions and the overall health environment [4]. Therefore, fostering effective professionalism in health education among pre-service nurses is crucial to enhance their competency in providing health education to diverse groups like patients and residents.

To enhance the health education competency of nursing students, it is imperative to provide them with practical educational experiences that combine major theories and practical competencies. Health education competency extends beyond mere theoretical nursing knowledge. It involves integrating pedagogical knowledge, which encompasses instructional content, learners, teaching methods, and learning approaches, to translate it into practical knowledge [5]. In this context, simulated classes represent an effective teaching and learning strategy. They offer students the opportunity to experience the process of preparing and conducting health

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education in a comprehensive manner [6].

The ability to conduct simulated classes is a crucial practical skill in education, offering valuable experience in applying theoretical knowledge to real-life teaching scenarios. Consequently, prior research has advocated for increasing opportunities for pre-service teachers to engage in teaching, highlighting its effectiveness in enhancing teaching capabilities over merely extending field training duration [7]. It has been noted that teachers benefit from experiencing classroom life in a less stressful environment, as it presents a valuable educational opportunity [8]. In the context of health education for real patients, the training provided to pre-service nurses is notably insufficient. The use of simulated classes plays a critical role in minimizing educational errors when nurses apply their acquired knowledge to subjects without prior clinical practice [9].

Therefore, simulated classes serve as a fundamental method for pre-service nurses to acquire practical experience and enhance their health education expertise. Research indicates that the cumulative experience of conducting simulated classes during the pre-service period is vital in developing class expertise [10]. Furthermore, the educational experiences undergone by many teachers during their pre-service years lay the groundwork for their future teaching practice, extending well beyond their graduation and into their roles as active educators. Thus, the content and quality of simulated classes are of paramount importance [11].

Moreover, simulated education classes enable learners to reflect on scenarios resembling real-life situations and work in settings that more closely represent actual environments. Prior research on pre-service teachers has shown that their teaching skills improved through delivering simulation lessons to peers, followed by the analysis and discussion of their teaching experiences [12]. Similarly, pre-service nurses engaged in simulated classes mimicking clinical practice environments demonstrated enhanced abilities in practical problem-solving, critical thinking, and clinical decision-making [13]. Consequently, nursing educational institutions are increasingly advocating for the more frequent incorporation of such classes. Through these simulated health education classes, pre-service nurses acquire experience in devising lesson plans and instructing classes.

Although research on simulated education classes is largely ongoing, a few studies have specifically focused on simulated health education in nursing. These include investigations into simulation training, like pre-service teachers' experiences teaching various subjects, class teaching methods utilizing immersive virtual reality, innovative class models by pre-service teachers, and pre-service teacher education for infants and toddlers [14–16]. Health education simulations afford pre-service nurses the chance to directly demonstrate classes and hone their teaching skills through peer feedback and advisor guidance. Moreover, these classes offer opportunities for pre-service nurses to evaluate and discuss health education content with their advisors and peers. Therefore, the experiences of pre-service nurses in simulated health education classes provide a comprehensive understanding of health education based on theories, in a context akin to the nursing field. This study aims to examine the experiences of pre-service nurses in performing simulated health education classes and to explore their implications.

## 2. Methods

### 2.1. Research design

This qualitative study employed a phenomenological method, a scientific approach focused on studying, describing, and interpreting various life phenomena. Utilizing this method, the study aimed to gain a deeper understanding of the learning process in pre-service nurses by exploring the prototypes of their experiences, thoughts, perceptions, and emotions. The phenomenological research approach was deemed highly suitable for elucidating the fundamental nature of human engagement in experiences and for capturing the intricate relationship between nursing and learning experiences.

### 2.2. Participants

The study involved 32 fourth-year pre-service nurses majoring in nursing at the Department of Nursing, University A, located in Y City, South Korea. These pre-service nurses participated in health education simulation classes as part of their assignment during the community public health nursing practice period. The demographic composition of the participants included 6 males and 26 females, with average ages of 27 and 23, respectively, as detailed in Table 1.

### 2.3. Data collection

The study was conducted from April 20 to June 30, 2022, aiming to improve the efficacy of the simulated health class method. Participants utilized a reflection journal for documenting their experiences during practice sessions. The researcher independently analyzed and assessed the participants' entries, with the journals serving as an effective tool for capturing reflective content, process,

**Table 1**  
General characteristics of participants.

	Male	Female
Gender	6	26
Average age	27 ± 1.04	23 ± 1.97
Grade	4	4
Major	Nursing	Nursing

and changes in reflection levels.

At the beginning of the class, the researcher clarified that data from the reflection journals would be exclusively used for research to enhance the class. The students were then instructed on how to express their willingness to participate, either through text or phone, should they decide to join. Out of sixty pre-service nurses in the community nursing practice, those who submitted their self-reflection journals as part of their post-class assignments were considered for the study.

A non-probability convenience sampling method was employed to select 32 students who consented to participate and provided their reflection journals. The researcher met these prospective nurses face-to-face, extensively explained the study's purpose and methodology, and obtained their informed consent. Participants were instructed to type and submit their reflection diaries, spanning one to two pages of A4 paper, focusing on their "experiences during the simulated health education performance." Additionally, the students were informed of their right to withdraw from writing the reflection journal at any point.

## 2.4. Research procedure

### 2.4.1. Guidance on health education methods

On the initial day of community nursing practice, the researcher conducted a 50-min lecture detailing the theory behind health education methods. This session included instructions on formulating assignments for simulated health education classes, encompassing the creation and examples of health education lesson plans, selection of topics for health education, and key points to emphasize in health education delivery.

### 2.4.2. Providing feedback about lesson plans

The researcher provided feedback via email on the pre-service nurses' developed plans for simulated health education classes. This feedback process enabled discussions on the evolution of simulated health education classes, focusing on effective questioning techniques, the creation and presentation of efficient class materials, and optimal class time allocation. The feedback was provided in an open format without a rigid structure. The researcher assessed the organization of the simulated health education class plans, ensuring they included an introduction, body, and conclusion. Additionally, the researcher evaluated the relevance of the selected content for the target audience and offered critiques on any inappropriate sections.

### 2.4.3. Simulated health education classes

On the final day of practice, pre-service nurses conducted the simulated health education classes. Team members, except for the presenter, assumed the role of a substitute target audience. The instructor led the session as in a real classroom setting. Team members and researchers, acting as the virtual audience in this educational endeavor, engaged in the class by responding to queries and participating in educational activities as if in an actual class. Following the completion of the simulated health education classes, which lasted about 30–40 min, the researcher convened an evaluation meeting. This meeting focused on providing feedback on the strengths and areas for improvement in each team's presentation. Pre-service nurses engaged in self-assessment of their simulated health education experiences, fostering confidence through mutual support and commendation. This session also served as an opportunity for reflection, discussing potential enhancements and additions for future sessions.

### 2.4.4. Writing an individual self-reflection journal

In this component, pre-service nurses were encouraged to freely express their thoughts and emotions regarding their experiences in conducting simulated health education classes. The researcher directed the participants to articulate their feelings and learnings from the simulated health education activity.

## 2.5. Data analysis

The study adhered to Colaizzi's [17] seven-step analytical procedure for the phenomenological method: (1) thoroughly read and re-read the transcript to gain an overall "feeling" of its content, (2) pinpoint statements that significantly reflect the pre-service nurses' experiences during the simulated health education in Korea, (3) extract "meaning" from these significant statements, (4) categorize the meanings into thematic clusters, (5) re-examine all transcripts through the lens of these thematic clusters to maintain close alignment with the original data, (6) distill extensive descriptions into succinct and rich statements, encapsulating the diverse meanings into the core essence of the experience, and (7) present the fundamental structure statement back to the participants for validation of the described pre-service nurses' experiences in the simulated health education in Korea.

The researcher collaborated with colleagues and experts in qualitative research to ensure the analyzed results preserved the original meaning. The themes identified in the analysis were articulated, linking them to the relevant phenomenon. The researcher then conveyed the phenomena using statements that captured the fundamental structure of the integration. The study's analysis was validated through cross-verification with the participants, confirming the accuracy of the descriptions. This research yielded 149 meaningful statements, nine subcategories, and four categories pertinent to the pre-service nurses' experiences in simulated health education.

## 2.6. Ethical considerations

This study commenced subsequent to obtaining approval from the Bioethics Committee of Dongyang University (IRB No. 1041495-

202205-HR-01-01, approval date: 2022-03-23). The researcher delineated the research objectives to the participants, secured their voluntary consent for participation, and assured that the gathered data would be utilized solely for this investigation. Furthermore, the researcher addressed ethical concerns such as withdrawal, confidentiality, and anonymity, provided the consent form, and acquired the participants' signatures. Non-participation posed no disadvantages to pre-service nurses.

### 3. Results

The study yielded four upper-category and ten subcategory outcomes for pre-service nurses following their participation in a health education simulation. These subcategories, identified through data analysis, are presented in [Table 2](#).

#### 3.1. Difficulty in preparing for the simulated health education class

The pre-service nurses were tasked with a health education simulation class. Initially, having only been recipients of health education, they were uncertain about how to approach the assignment, perceiving it as a preparation for their own learning.

##### 3.1.1. Not Sure what to do

Upon receiving the assignment to simulate a health education class, the pre-service nurses were unsure of the required actions. Additionally, they felt the pressure of the task being a collaborative effort rather than an individual one.

- “I have received health education from teachers, but since I was actually going to do it for someone, I was at a loss as to what to do.” (Participant 3)
- “I thought it was difficult because it was not a task to investigate the theoretical content alone but to think about it with the team members.” (Participant 23)

##### 3.1.2. Difficulties in writing a lesson plan

The initial step for the pre-service nurses in preparing for the health education classes was to develop a lesson plan. This plan required outlining a framework to meet their educational objectives. The task was daunting and consumed considerable time as the pre-service nurses strived to design an educational plan that detailed the content and structure of their health education lesson.

- “I felt the pressure to do well because I thought the actual educational activities could proceed smoothly only when the lesson plans were written accurately.” (Participant 27)
- “The contents and pictures so elementary school students could understand them well.” (Participant 13)

##### 3.1.3. Understanding the pain points as an educator

This section presented an opportunity for nursing students, who had previously only received education, to comprehend the essentials of preparation for becoming educators, including mindset considerations, through their own experiences in the educator role.

- “Educators have a lot to prepare before educating someone.” (Participant 20)
- “It was an opportunity to think deeply about how the best education that the audience can feel is created.” (Participant 17)

#### 3.2. Feeling the value of being together

In the process of preparing lesson plans and materials, pre-service nurses engaged in active discussions and consultations within their teams. They gained experience in exchanging views with team members, choosing topics, structuring content, and determining the methods for developing educational materials.

##### 3.2.1. The importance of team communication

During the assignment preparation, team members exchanged numerous ideas. This communication fostered positive synergy, as

**Table 2**  
Categorization of theme.

Category	Subcategory
Difficulty in Preparing for the Simulated Health Education Class	Not Sure What to Do
	Difficulties in Writing a Lesson Plan
	Understanding the Pain Points as an Educator
	The Importance of Team Communication
Feeling the Value of Being Together	Good Ideas Coming Together
Mindset as a Health Educator	Careful Presentation Check
	Feels Like a Real Class
Growth as a Nursing Educator	Acquiring Practical Knowledge
	Confidence in Education

participants considered each other's perspectives for task enhancement and shared diverse concepts, avoiding emotional criticism.

- “There was a difference of opinion among the members, but I was able to communicate a lot, and I think the result was more satisfactory because I could think about it in various ways.” (Participant 25)
- “I learned that my thoughts can sometimes be wrong and that other people's opinions are sometimes the right decision.” (Participant 31)

### 3.2.2. *Good ideas coming together*

As the pre-service nurses shared their thoughts within the team, innovative and creative ideas surfaced. The team amalgamated these ideas to devise a lesson plan.

- “The idea of making our educational videos was really good.” (Participant 15)
- “I thought it would be good to create a dental education model to help the target audiences understand and to give a quiz at the end of the lesson.” (Participant 11)

### 3.3. *Mindset as a health educator*

Pre-service nurses engaged in extensive preparations for health education classes, participating in simulated class demonstrations. During these simulations, they contemplated diverse strategies to keep the target audience engaged and attentive, leading to multiple revisions of their plans.

#### 3.3.1. *Careful presentation check*

The completion of these simulated health education classes involved delivering a simulation presentation. Pre-service nurses responsible for the presentation diligently practiced and revised their scripts through numerous rehearsals to enhance the effectiveness of the class. Additionally, they meticulously prepared aspects such as the tone and speed of their voices, their comments, and movements to improve class delivery.

- “I practiced the presentations several times so they would not get bored.” (Participant 18)
- “I wrote the presentation script in advance, and during the rehearsal, I kept seeing the parts that needed correction from the team members, so I kept revising them.” (Participant 21)

#### 3.3.2. *Feels like a real class*

In the simulation process, team members and the researcher, excluding the presenter, assumed the roles of the target audience. While the presenter delivered the simulation, these role-players actively engaged, responding to questions and listening as if they were genuinely receiving the information.

- “When I gave a presentation, I was grateful when the audience responded positively.” (Participant 28)
- “I think it was very interesting and fun to work on the mock simulation presentation method that I tried for the first time.” (Participant 24)
- “I didn't make the presentation, but I learned a lot and had fun preparing it together.” (Participant 25)

### 3.4. *Growth as a nursing educator*

Pre-service nurses enhanced their practical understanding by applying theoretical classroom knowledge in active learning contexts, such as teaching others. This experience is expected to cultivate their confidence in delivering effective health education to patients or groups once they become practicing nurses.

#### 3.4.1. *Acquiring practical knowledge*

In preparation for their roles, pre-service nurses engaged in simulated health education sessions, effectively converting theoretical knowledge into practical skills.

- “While preparing for simulated health education, I deepened my understanding of the related health knowledge.” (Participant 19)
- “My team presented a simulated health class on correct posture for spine health, which made me realize the importance of practicing proper posture daily.” (Participant 4)
- “As I prepared for education with the mindset that I was teaching someone, I began to pay more attention.” (Participant 17)

#### 3.4.2. *Confidence in education*

Participating in simulated health education classes enhanced the pre-service nurses' confidence in their abilities to excel as health educators in their future nursing roles. They also expressed a desire to utilize their developed educational materials with actual target audiences.

- “I gained confidence in the fact that I could do better if I had the opportunity to do health education again.” (Participant 5)
- “I would also like to experience teaching this material to a real educational audience.” (Participant 31)

#### 4. Discussion

This study investigated the implications of simulated health education class experiences for pre-service nurses. Earlier research indicated that pre-service nurses often encounter high levels of stress when dealing with uncertainties and unfamiliar situations [18]. In our study, these nurses faced challenges in identifying the appropriate target audience and in formulating an effective educational strategy and content. They developed educational content and materials specifically designed for the simulated health education classes, focusing on the selected target group. Nonetheless, differentiating the content to suit various audience age groups, socio-economic statuses, and educational backgrounds proved difficult for them. This experience led the pre-service nurses to recognize the importance of considering multiple aspects in preparation for teaching roles. The findings of this study align with previous research on simulated class experiences for young children [19], which concluded that students found the simulated class task challenging across all grade levels.

This research involved conducting a simulated health education class as a team project. Implementing a simulated health education class necessitates extensive data, research, collaboration, and effort among team members. Through communication and the exchange of ideas, students generated more innovative concepts, fueled by mutual motivation from their collective hard work. This dynamic heightened the participants' zeal for learning through active engagement in simulation-based role-play. Prior research indicates that groups engaging in simulation-based learning markedly enhance their communication and cooperation abilities compared to control groups, corroborating the findings of this study [9,20]. In the clinical nursing domain, nurses engage in problem-solving through teamwork, sharing insights with peers [21]. Therefore, the collaborative skills honed by pre-service nurses in preparing for these simulated classes serve as a vital learning tool for addressing potential challenges in clinical settings. It also fosters confidence in effectively executing their responsibilities.

Furthermore, the experience of collaboration led participants to appreciate the importance of communication, assess their communicative competencies, and cultivate their nursing character within the learning community. Research highlights simulation-based classes as engaging educational approaches for students, aligning with evidence that these methods significantly influence student behavior in real-life contexts [9]. Notably, pre-service nurses acting as instructors in these simulations enhanced their teaching abilities by actively seeking and incorporating feedback from team members during the sessions. Previous studies [22] have demonstrated that simulated teaching environments bolster instructors' skills through the identification and analysis of their challenges. In this context, nursing educators should guide pre-service nurses to perceive teaching experiences in simulations as opportunities for professional growth, rather than simply tasks to complete. The simulated education methodology, designed to mirror real-life scenarios, proves effective in bridging theoretical education with practical application, capturing student interest, and integrating smoothly into clinical settings [23,24].

Applying knowledge gained in the classroom to real-world scenarios is a significant challenge for pre-service nurses. Simulation education, therefore, offers an environment that closely resembles actual field conditions, bridging the gap between theoretical learning and practical application. This approach not only offers engaging experiences for students but also integrates seamlessly into clinical settings [23,24]. These findings align with earlier research, which indicates that simulated education classes improve the learners' confidence in performing teaching tasks [19,25]. A systematic review examining the impact of simulated education on knowledge and confidence revealed improvements in both areas across all 17 studies [26]. The act of applying theoretical knowledge in practical contexts builds confidence in one's understanding [27]. Pre-service nurses reinforce their theoretical knowledge, sourced from major textbooks, by employing it in simulated health education classes [19]. Through this method, they learn autonomously and enhance their ability to apply knowledge effectively. This process evolves into an experience of planning their own growth, equipped with the skills and courage to execute their knowledge.

#### 5. Conclusion

Health education competency is crucial for nurses, yet research on training programs and educational methods in this area is scant. Simulated health education proves to be significant in enhancing health education skills, providing students with educational experiences that foster practical knowledge vital for their future roles as nursing educators. It is hoped that this study will mark a new beginning in advocating for competence in nurse health education.

#### Limitations

This study presents certain limitations. Firstly, it did not conduct a detailed analysis of the stages of change in the thought processes of nursing students. An in-depth study of how natural experiences evolve during the pursuit of meaning in simulated health education classes is warranted. Moreover, the generalizability of this study is limited, as it focuses on a small cohort of students from a single university. Therefore, future research should involve a broader participant base to analyze the experiences in simulated health education classes more effectively.

## Data availability statement

Data will be made available on request.

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## CRediT authorship contribution statement

**Youn-Joo Um:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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