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# Clinical practice experience of doctor of philosophy nurses in South Korea: a qualitative study

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## ABSTRACT

**Purpose:** This study aimed to gain a broader understanding of the clinical practice experience of Doctor of Philosophy nurses working in nursing positions.

**Method:** Participants were 15 full-time nurses who are current Doctor of Philosophy candidates or have acquired a Doctor of Philosophy in nursing. Data were collected through face-to-face interviews and the participants' diaries, which were analysed using a descriptive qualitative method.

**Results:** The patient care experiences of Doctor of Philosophy nurses in clinical practice were grouped into four themes: "providing evidence-based and patient-specific education," "proactively taking responsible for communicating with patients," "enhancing the quality of nursing through reflective attitudes," and "advocating for patients using a multifaceted approach." The factors facilitating or inhibiting clinical practice were identified with three themes.

**Conclusion:** This study revealed that the Doctor of Philosophy nurses used the knowledge and experience they gained in their Doctor of Philosophy nursing programme to serve as role models for the advancement of nursing education and evidence-based practice.

## ARTICLE HISTORY

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## KEYWORDS

Evidence-based nursing; nurses; nursing education; patient advocacy; qualitative research

## 1. Introduction



As nursing practice becomes complex and patients become aware of their rights, the importance of a high level of professionalism among nurses has been amplified (Thielmann et al., 2019). Nurses' professional knowledge and education strongly influence the health outcomes of patients (Yakusheva et al., 2014), prevalence of adverse events and complications, and cost-effectiveness of health care institutions (Staffileno et al., 2013).

Doctoral programmes aimed at knowledge creation and development of novel theories in the field of nursing science became widespread in the late 20th century. Nurses with a Doctor of Philosophy (PhD) degree in nursing account for 1% of all nurses in the USA and Sweden (Nickitas & Feeg, 2011; Swedish Society of Nursing, 2018). The doctoral course in nursing was first established in 1978 in South Korea, and the number of nurses pursuing a doctoral degree is increasing (Geraghty & Oliver, 2018): 111 nurses graduated with PhDs in 2012, while 278 graduated in 2019, representing a 2.5-fold increase (The Korean Nurses Association News, 2012, 2019). Most PhD nurses focus on research and education in an academic setting, although some remain in a clinical setting (Andreassen & Christensen, 2018; Moghadam et al., 2017; M. Orton et al., 2019). Recently, a trend among PhD nurses to remain in

a clinical setting after completing graduate studies has been noticed (Brusie, 2020).

PhD nurses working in a clinical setting are able to provide care for patients in a more systematic way compared with non-PhD nurses. They not only comply with existing evidence-based practice (EBP) guidelines, but also play a greater role in fostering EBP than they did prior to their graduate studies (M. Orton et al., 2019). Additionally, they apply their specialized knowledge to advance the education of nursing students by linking nursing research to clinical practice (Andreassen & Christensen, 2018; McNett, 2006), and contribute to the improvement of professionalism among other nurses by encouraging the development of nursing competence (M. L. Orton et al., 2021).

In the USA, where practice-oriented Doctor of Nursing Practice (DNP) programs have existed for a while, the goal—of a staffing ratio of 1 PhD nurse to 1,000 general nurses for one EBP project per 100 beds—has been proposed (Staffileno & McKinney, 2011). Patient care outcomes and cost effectiveness are typically considered together in healthcare performance assessments (Staffileno et al., 2013), and PhD nurses working as researchers have provided the necessary skills and support for major research related to improving patient outcomes (Carrick-Sen et al., 2016; S. Lee et al., 2013).

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However, PhD nurses in the USA often experience difficulties in performing these roles because of insufficient knowledge on how to initiate and sustain organizational change to demonstrate their competence in clinical practice (Bauer & Kirchner, 2020). They also face insufficient institutional support to demonstrate their competence in clinical practice (Orton et al., 2019). Moreover, PhD nurses in Iran have experienced an identity threat in clinical settings owing to the lack of clinical competence (Moghadam et al., 2017), while Korean PhD nurses are concerned that their preparation to act as educators is insufficient (Kim et al., 2015). These studies clearly show that no matter which country, PhD nurses working in clinical practice experience difficulties.

Although the number of PhD nurses is increasing in South Korea, only a few studies have focused on the conflict and burden of work–family balance among married PhD nurses (Lim et al., 2018; Shin et al., 2016), and no study has described their clinical practice experience. Therefore, this study explored the clinical practice experience of Korean PhD nurses. The research question was “What experiences do PhD nurses have in clinical practice?”

## 2. Methods

### 2.1. Study design

This study applied a descriptive qualitative method. It explored the clinical practice experiences of PhD nurses (after completion of nursing course work or graduation) in medical institutions. The study was carried out in compliance with the COREQ checklist (Tong et al., 2007).

### 2.2. Participants

Using a convenience sampling method, the second author, a PhD nursing student, recruited her colleagues and acquaintances who met the inclusion criteria for this study. The inclusion criteria for the participants were as follows: nurses who had completed PhD course work or acquired a PhD degree, employed full-time at a medical institution, and directly participating in patient care. As no previous studies presented any differences between nurses who had completed PhD course work and acquired a PhD degree, the criteria considered the homogeneous characteristics of learning curricula required for a doctoral degree in order to explore the clinical practice experience of nurses with a PhD. The participants were referred to as PhD nurses in this study. Nurses with a PhD in a field other than nursing, PhD nurses employed in an academic setting, and PhD nurses who did not directly participate in patient care were excluded.

The participants were employed in 10 general hospitals, and their average age was 44.7 (range: 32–55) years. They comprised seven nurses and eight front-line nurse managers. Their work experience as a nurse ranged from a minimum of six years to a maximum of 33 years, and the average number of years since they completed a doctoral degree was 24 (range: 4–48) months. They worked in internal and surgical wards, intensive care units, and special units such as haemodialysis units and hospice units.

### 2.3. Data collection and ethical considerations

This study was conducted from October 15 to 31 December 2019, after obtaining ethical approval from the institutional review board. The first author served as the interviewer and provided sufficient explanation to the participants regarding the purpose and method of the study, voluntary participation, anonymity, use of a recording device, possible benefits and disadvantages, and their right to withdraw at any time. All participants provided informed consent. Data were collected using face-to-face interviews based on semi-structured questions, participants’ diaries, and field notes. Any guidelines or request to write about their experience in the diaries were not given. The participants voluntarily provided their diaries which they had written in the past. After explaining the purpose and recording of the study data to the voluntary participants, we received written consent and conducted the interviews in a quiet and comfortable space such as a conference room at their work, according to each participant’s preference. The interview questions were designed based on a literature review of previous studies (McNett, 2006; M. Orton et al., 2019).

The first author, who had previous experience conducting qualitative research and who had no conflict of interest with the participants, conducted all the interviews, which began with an open-ended question, “Could you tell us the work (tasks) you have performed in clinical practice after obtaining a PhD in nursing?” Additional questions such as “What happened then?”, “Give me an example” were asked when it was necessary to reconstruct the story presented by the participants. Each interview lasted 45 ~ 60 minutes, on average. The author’s general reflections regarding the interview were centred on keywords. Also, while the interviews were in progress, the author wrote participants’ facial expressions, the volume of their voice and their nonverbal expressions in the field notes. Two participants provided their diaries describing their patient care experience in the past, which illustrated how they had performed clinical practice. The recorded audio file was transcribed in Korean by the first author. No new concepts were presented

after interviewing the 15 participants, and data saturation was attained.

## 2.4. Data analysis

Data collection and analysis was conducted simultaneously by applying the descriptive qualitative method (Elo & Kyngas, 2007). First, we read and reread the contents of the transcribed interviews to familiarize ourselves with the results. Second, through line-by-line analysis, we identified meaning units such as words or sentences that contained clear and consistent messages in the interview data and the participants' diaries. Third, similar or different units were grouped into higher-level units such as subthemes and themes through several discussions and consensus among the authors. Lastly, overarching themes were derived to provide a broader understanding of doctoral nurse experiences.

## 2.5. Rigour

We ensured the quality of this study with respect to credibility, transferability, dependability, and confirmability by following the criteria suggested by Lincoln and Guba (1985) for evaluating rigour. For credibility, we verified the transcribed interview data with the participants, presented the analytical results to three participants to confirm the validity of the analyses, and underwent a peer review process with three qualitative researchers during data analysis. For transferability, we continued the interviews until sufficient data were collected and the findings were clearly reflective of the clinical practical experiences of nurses who had completed PhD course work or obtained a PhD degree. For dependability, we collected, analysed, and described all the interview data. For confirmability, we sought to minimize the risk of bias and ensure reflexivity by repeatedly listening to the recorded audio file of each interview to see if there had been unnecessary interventions by the interviewer or comments or judgements on the participants' responses during the interviews. Additionally, given that colleagues and acquaintances were invited to participate, the findings after the data analysis were reviewed by other two PhD nurses who did not participate in this study, to ensure reflexivity.

## 3. Results

The PhD nurses' experiences in clinical practice were grouped into three themes and ten subthemes. The themes were patient care, facilitating factors, and inhibiting factors (Figure 1).

### 3.1. Applying evidence-based and reflective decisions for improving multifaceted care

Patient care experiences reported by PhD nurses in clinical practice included four themes related to education, communication, attitude, and approach.

#### 3.1.1. Providing evidence-based and patient-specific education

When educating patients, the PhD nurses provided patient-specific information after careful consideration of duration of hospitalization, educational level, and self-management ability of patients, and patients' understanding of their condition and treatment increased. Each PhD nurse used various methods to impart education. One explained the possible symptoms to patients while focusing on why the symptom can be expected and how his/her care plan will be implemented. They also reported that creating guidebooks with visual effects or imparting information while taking pictures or notes helped patients understand the educational materials more easily.

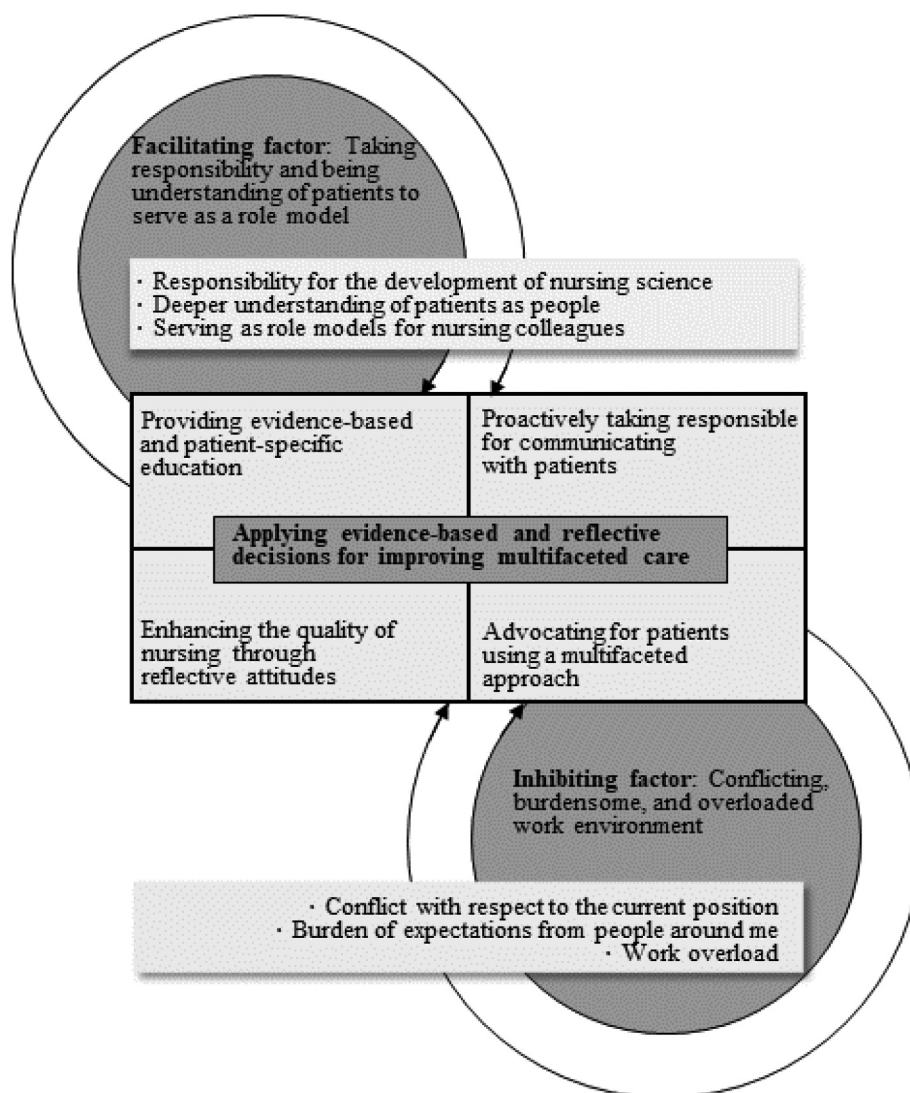
*Through doctoral course work, I have attained expertise in determining when patients might experience difficulties and how they could overcome the symptoms. In fact, I share my expertise with a new patient or patients who are unable to manage symptoms even though they have had the disease for a long time; then, their conditions change quickly (Participant 3).*

*Even if I explain [only] one thing, I contemplate how to explain it for patients in a way that they can understand [it] easily. When I explain something through pictures or notes, the patients or caregivers can easily understand the educational material. They often say, "I have faith in your explanation." This might be different from nurses without a PhD (Participant 14).*

#### 3.1.2. Proactively taking responsibility for communicating with patients

By proactively offering information in their communication with patients and caregivers, the PhD nurses consistently built trust and provided feedback after communicating with patients. They mentioned the importance of asking the patients whether they had any questions and of waiting for patients to ask them about their doubts. If a patient was deemed to have received the wrong information or to have misunderstood the information, the PhD nurses pointed out the possible confusion and provided guidance.

*In the past, rather than asking the patient if he/she had anything to ask, I just said what I had to say. I recognized that it was very important in patient education to wait for patients to comprehend the information. Actually, patients do not ask a lot of questions, but when I ask, "Do you have any more questions?" the patients feel relieved and trust me (Participant 13).*



**Figure 1.** Clinical practice experience of PhD nurses.

*I told patients that the purpose of searching online should be matched with the patients' treatment. Some useless information could make patients sicker. Instead of relying on blogs, I teach them to visit hospitals' or public institutions' websites to find trustworthy education material (Participant 4).*

### 3.1.3. Enhancing the quality of nursing through reflective attitudes

The PhD nurses often contemplated the quality of nursing provided to patients. They reported frequently questioning and evaluating the quality of nursing care they provided, as is evidenced by their questions as follows: "Since I attained a higher level of education, shouldn't I think about this more?", "Shouldn't my nursing standards be higher than those of other nurses without a PhD?" Additionally, rather than providing one-time information to patients, the PhD nurses observed their patients closely and provided them continuous information with a particular focus on prevention.

*Even in the midst of a busy time, when I see this patient, regardless of the case severity, I want to do*

*what this patient needs this time; complete the care that needs to be done for this patient and move on ... When I have just five minutes, I am providing good care not in a quick and hasty manner; I want to show the patients that I can provide good care even for the five minutes (Participant 6).*

*There are high risks of falling when patients sit or walk in a wheelchair in the Osteo Surgery unit, but the tasks of having patients sit or walk were delegated to employed caregivers before. However, the tasks I care about the most now are sitting and walking education for patients. I ask patients to walk and sit with me (Participant 5).*

*Today, I tried to find clinical meanings in the simple words and actions that the patient showed to me. I have never done this before because I thought that I was always busy. How could I have tried to find meanings from patients' words and actions? Was this my intellectual curiosity? This approach was helpful for my nursing competency. A patient was in pain and I told him that he looked well. The patients said that he felt comforted from my feedback. I always made a round watching the*



behaviours and facial expressions of patients ... I thought that this might be my little interest and efforts to find clinical meaning (Participant 4, diary).

### 3.1.4. Advocating for patients using a multifaceted approach

Human understanding was embedded in the participants' nursing practice. The PhD nurses considered the patients' situation and advocated for and protected patient rights. They tried to not only understand their patients' physical symptoms, but also assess the hidden meaning of their language or behaviour. Even if a patient's needs exceeded the PhD nurses' capability, they offered their help by connecting patients with multidisciplinary professionals.

*The male patient on haemodialysis felt exhausted. I had him experience the art therapy this hospital provided. He should be excluded when considering the inclusion criteria for patients. I wanted to add just a little vitality to his life. When he became aware of my intention, he was very grateful that he had received good therapy for free because of my help. He said he felt loved and protected by my care (Participant 3, diary).*

*I know I cannot solve all the needs of patients and their families, but I think, "How can I help them?", and I connected them to physicians, social workers, and other professionals ... In the past, I only assessed patients' physical conditions. Now, I am more into taking care of difficulties of patients and family and encouragement ... (Participant 1)*

*Sometimes physicians do not notice the ethical considerations for research and enrol patients in their study ... There are several times when they ignored the ethical process. Then I raised an objection, saying, "Do you know you cannot do that?" (Participant 8)*

## 3.2. Facilitating factor: taking responsibility and being understanding of patients to serve as a role model

Three themes of factors facilitating clinical practice identified by the PhD nurses were determined to be related to responsibility, deep understanding of patients as people, and being a role model for colleagues.

### 3.2.1. Responsibility for the development of nursing science

The PhD nurses had a sense of responsibility to develop nursing science because of their appreciation for colleagues' support at work, patient recognition, and the pride that their family had for them.

*There is a sense of responsibility to play a role in the process of nursing "scientification." It is a different sense from before (Participant 2).*

### 3.2.2. Deeper understanding of patients as people

Through their doctoral course work, the participants often developed a deeper understanding of people rather than merely treating patients as healthcare customers. They also insisted that the holistic view and attitude of patients' healthcare concerns in various fields were fostered through doctoral course work focused on aesthetics, philosophy, and qualitative research.

*When I took a qualitative research class, I began to think, "This is a human. This is a person before I approach him as a patient." It was important to think of them as humans and to understand them (Participant 3).*

### 3.2.3. Serving as role models for nursing colleagues

As role models among nurses, the PhD nurses served to motivate their colleagues. They were able to persuade other colleagues easily to pursue higher education because they studied during their working shifts. They also shared ideas about research whenever appropriate.

*I encourage nurses in this department to enrol in graduate school and actually exchange ideas with nurses about research so that they have an awakening to research (Participant 2).*

## 3.3. Inhibiting factor: conflicting, burdensome, and overloaded work environments

Three themes of factors inhibiting clinical practice identified by the participants after completing PhD course work or PhD graduation were determined to be related to conflicts, expectation, and work overload.

### 3.3.1. Conflict with respect to the current position

Because of the perception of the people around them, the PhD nurses experienced conflict in that it was assumed they would take a university position after PhD graduation. They reported they could feel the gaze and behaviour of people around them and had the impression that others felt they "wouldn't be in this hospital anymore," or made sarcastic remarks about them working in a clinical setting. The general lack of advantage (in terms of salary) and common disadvantages (including separation from family) in becoming a university faculty member resulted in their frustration.

*People around me often say, "You also got a doctoral degree; now you are going to move to university." Then sometimes I feel conflicted like "So should I move on to university as a nursing professor?" When I think of my career, I have such thoughts (Participant 1).*

### 3.3.2. Burden of expectations from people around me

The expectations of the people around the PhD nurses sometimes created a burden. They were

expected to have professional knowledge and play a leading role. They felt that they were being tested on how they were accomplishing tasks, and if they did not meet others' expectations, they felt that they were being disparaged, because of the apparently greater frequency of demeaning than encouraging comments.

*It is something like this. "Let's see how well she is doing." When the department prepares for a workshop or official presentation, they say, "You have a doctoral degree, try it." I feel uncomfortable when they talk like this (Participant 7).*

### 3.3.3. Work overload

The PhD nurses felt overworked because of many unnecessary tasks. They thought that there were tasks besides routine work such as education and data analysis, which tended to be mainly concentrated on themselves. There was a feeling of resentment that they were assigned more work unnecessarily because it appeared their outcomes were different from those of nurses without PhDs.

*When nurse managers assigned a task to me, it sounded like "You need to try to do your best to complete the most difficult job," and "you are the best at this kind of task; complete it" (Participant 7).*

## 4. Discussion

This study explored the experiences of PhD nurses in clinical practice, providing a preliminary foundation for high-quality patient care. In general, most PhD nurses have been affiliated with a university—an academic environment that focuses on research and education, and their involvement in research in a clinical setting is rare in South Korea. Thus, given that PhD nurses in clinical settings in South Korea mostly perform activities related to nursing care, this study focused on determining these activities, not on performing research based on clinical practice. However, it is emphasized that the positioning of PhD nurses plays a pivotal role in linking research, education, and practice in the nursing profession (Andreassen & Christensen, 2018; Carrick-Sen et al., 2016). This study indicates that the PhD nurses' role of conducting research based on clinical practice needs to be strengthened in the future.

The findings of this study revealed that the participants continued their efforts to improve the quality of nursing by using the knowledge and experience gained through their doctoral course work, evaluating and reflecting on their understanding of people and the meaning of nursing, building empathy and trust with patients, and, consequently, having pride in the contributions they make as PhD nurses. According to a previous study of doctoral nurses working in clinical settings, the primary responsibilities of these nurses

were to develop nursing practice, conduct research (M. Orton et al., 2019), and implement EBP (Andreassen & Christensen, 2018). They also support the findings of this study that PhD nurses provided patient-specific education and strengthened EBP in nursing at their institutions by drawing upon their academic knowledge and hands-on experience.

The PhD nurses provided patient-specific nursing services, making the patients feel valued. The act of focusing on patients was reported to consist of the provision of comprehensive nursing services by paying attention to preventive care while building trust with patients, and committing to take responsibility for patient outcomes. Similarly, according to a systematic literature review on the roles and functions of PhD nurses, combining clinical and academic experience is important for them to improve patient care (M. L. Orton et al., 2021). Moreover, in the study investigating the role of Nordic PhD-prepared nurses (Elgaard Sørensen et al., 2019), the nurses responded that making a difference for patients is important in their ideal work life. This improved professionalism could affect patient-specific nursing services.

PhD nurses' patient advocacy, which involves meeting patient needs and caring for underprivileged patients by assessing their invisible messages, reflects their practical maturity obtained through a broad understanding of patients' individual needs. Dr. Prema in Singapore suggested that as a doctoral nurse, internalizing what she has developed and learned about this profession contributes to professionalism (Soon, 2004). The participants in this study described how the completion of a humanities course as part of their doctoral course work in nursing helped expand their understanding of patient emotions. Humanities courses include philosophy, literature, art, and ethics. As the healthcare service involves interaction with patients based on respect, learning about humanistic values in medical school is crucial for medical students (Jung et al., 2016), and Seoul National University College of Medicine has provided medical humanistic courses to potentiate humanities of medical students (S. Y. Lee et al., 2019). Humanities courses enabled a holistic, people-centred approach to care, providing a new "lens" to understand the role of nurses and others better through interaction among clinical team members, and this might support holistic nursing by fostering a greater understanding of people (Hall et al., 2014). Therefore, nursing educators need to find ways for nurses to promote humanistic thinking continuously.

Factors experienced by the PhD nurses that facilitated their work in clinical practice were "responsibility for the development of nursing science," and "serving as role models for nursing colleagues." This finding is similar to the results of a study that surveyed doctoral nurses, colleagues, and nurse

managers with regard to how doctoral nurses were positioned in clinical fields and contribute to nursing practice, which revealed that doctoral nurses felt responsible for improving nursing standards (Andreassen & Christensen, 2018). In a systematic review study of PhD nurses' roles and functions in clinical care (M. L. Orton et al., 2021), the role of bridging between theory and practice by contributing their scientific knowledge to the implementation of patient care was emphasized, and they can serve as an attractive role model for colleagues. Another scoping review study on the roles of PhD nurses in clinical settings also described similar findings such as a practice influencer to colleagues as well as clinical leader and a clinical teacher for students (Dobrowolska et al., 2021). Columbia University School of Nursing and participating health systems in the USA established a Joint Nurse Scientist Role, where PhD nurses are responsible not only for student education but also for conducting research with institutional nurses and providing mentorship. As a result, PhD nurses conducted research that combined theory with clinical practice and smoothly carried out scholarly activities, thereby improving their value and presence (Carter et al., 2020). These results suggest various possibilities of PhD nurses' roles in educational and medical institutions.

This study found that nursing colleagues tended to think of PhD nurses as resources and expected them to be available to answer questions at any time and to provide research advice (Andreassen & Christensen, 2018). However, in this study, the pressure from the people around the PhD nurses and work overload posed obstacles to their work, which indicates that some colleagues lack understanding of the role of PhD nurses and that the duties of the role have not been established. PhD nurses experience the burden of developing their own roles without mentors or previous role models. Furthermore, PhD nurses in Iran felt the threat of professional identity because of expectations beyond their ability and their lack of clinical competence (Moghadam et al., 2017), which suggests conflicting expectations among PhD nurses, their colleagues, and nursing managers with regard to their respective roles.

Our findings indicate that PhD nurses are highly educated human resources that can improve the quality of nursing education and practice. Although each medical institution has different ways to maintain and allocate their human resources, PhD nurses in Iran were in charge of their role as clinical educators (Moghadam et al., 2017) and employed in both schools of nursing and medical institutions to conduct research and provide practical education, similar to PhD nurses' job descriptions in the USA (Carter et al., 2020). In particular, nurses who have acquired the Doctor of Nursing Practice qualification, a practice-focused degree,

engage in their practice based on the job descriptions of their professional roles and authority (Beeber et al., 2019). However, unlike previous studies, there are no official roles, work standards, and job skills for PhD nurses in medical institutions in South Korea. Thus, there is an urgent need to present evidence of the necessity to position nurses in the workplace according to their educational level and capabilities. In this respect, by exploring the clinical experiences of PhD nurses, this study contributes in that it highlights the need among nursing staff to focus on role models and the quality management of EBP. In particular, the role models presented by PhD nurses indicated the characteristics of transformational leadership (Bass & Riggio, 2008), namely, individualized consideration that advocates for vulnerable patients and provides patient-focused education; motivational inspiration to lead changes in patients through preventive education; idealized influences to trust nurses and to demonstrate a responsible attitude; and intellectual stimulation for the benefit of colleagues. Therefore, nurse managers should take the lead so that PhD nurses' performance can be seen in light of the interest and cooperation fostered by PhD nurses.

## 5. Conclusion

Addressing the impact of evidence-based and patient-specific nursing is important because of the complexity of nursing practice and a surge in the need for evidence-based professional nursing. In this study, PhD nurses working in clinical settings were found to serve as role models equipped with the characteristics of transformational leaders and as human resources equipped with professional competence to improve the quality of patient care. These findings highlight the necessity of raising awareness of their competence and value in medical institutions. Therefore, healthcare administrators should speak up for PhD nurses so as to enhance the quality of care and patient safety. The findings of this study suggest that the doctoral degree curriculum for nurses requires adjustments to enhance the clinical competency of PhD nurses and prepare them as clinical educators. The limitation of this study is that the sample population included participants only from one university in South Korea. However, an advantage of the sample is that the participants had worked at 10 general hospitals after completing their PhDs. The study findings also suggest the need for further research on the effects of patient care provided by PhD nurses and on improving the quality of nursing.

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