Development of a Patient- and Family-Centered Care education program for nurses in Intensive Care Unit

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ABSTRACT

Development of a Patient- and Family-Centered Care education program for nurses in Intensive Care Unit

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Background: Patient- and family-centered care (PFCC) emphasizes consumer-centered nursing that respects the individuality of patients and families, focusing on their needs, values, and preferences while fostering collaboration. Despite its proven benefits, including improved patient satisfaction, better health outcomes, and reduced family anxiety, implementing PFCC in intensive care units (ICUs) remains challenging. Nurses play a pivotal role in delivering PFCC, and a growing demand exists to enhance their competencies in this area. However, existing programs for ICU nurses often fail to adequately address the essential competencies required to implement PFCC effectively within a theoretical framework. Moreover, systematic and comprehensive educational programs explicitly designed to enhance these competencies are lacking. Therefore, this study aimed to develop an educational program to improve PFCC competencies for ICU nurses.

Methods: This methodological study employed the ADDIE (analysis, design, development, implementation, evaluation) model, focusing on the ADD (analysis, design, development) stages. The development of a preliminary program was developed through a systematic literature review and focus group interview conducted with ICU nurses. The program underwent two expert validations by seven experts, followed by a feasibility evaluation involving 12 ICU nurses. Pre- and post-intervention assessments measured patient-centered communication skill, empathy, peer

support, and Person-centered Critical Care Nursing (PCCN) level. Feedback was also collected through group interviews with participants.

Results: The education program consisted of six sessions designed to develop the core competencies required effectively implement PFCC: Professional competencies, knowing self, clarity of values and beliefs, commitment to the job, interpersonal skills including communication, empathy, and collaboration, management of the physical environment and fostering peer support. The feasibility evaluation demonstrated significant improvements in patient-centered communication, empathy, peer support, and PCCN level post-education. Participants reported increased motivation and practical confidence in implementing PFCC. Feedback highlighted the need for extended role-playing activities and additional discussion time. These suggestions were incorporated into the final program, structured into six sessions delivered over four weeks (three in-person, three online), each lasting 90 minutes.

Conclusion: This study successfully developed an educational program for adult ICU nurses using the ADD stages. The program effectively bridged theoretical knowledge and practical application, demonstrating its potential to enhance PFCC competencies. This program is expected to improve patient and family care experiences and satisfaction while fostering a culture of PFCC. Further studies should evaluate its effectiveness across diverse clinical settings and explore the development of tailored PFCC programs for neonatal and pediatric ICU nurses.

Key words: **Patient-and Family-Centered Care, Education program, Nurses, Intensive Care Unit, Nursing competency**

1. Introduction

1.1. Research background

Patient- and family-centered care (PFCC) refers to a consumer-centered approach to nursing that respects the individuality of patients and families, prioritizing their needs, values, and preferences over the traditional provider-centered healthcare delivery model (Secunda & Kruser, 2022). According to the Institute of Patient-and Family-Centered Care (IPFCC), PFCC emphasizes planning, delivering, and evaluating healthcare through mutually beneficial partnerships among healthcare providers, patients, and families (IPFCC, 2023). In particular, PFCC challenges the traditional biomedical model, which focuses solely on disease and treatment, advocating for a biopsychosocial perspective that recognizes patients as empowered individuals (Van Mol et al., 2017). This paradigm shift has spurred the widespread adoption of PFCC in clinical settings, demonstrating its value through improved patient satisfaction, better health outcomes, and reduced anxiety and depression among family members (Scott et al., 2019; Goldfarb, Bibas, & Burns, 2020). Additionally, PFCC has been linked to enhanced communication quality between patients and healthcare providers (White et al., 2018), increased job satisfaction, and reduced turnover intentions among nurses (Park et al., 2018). The growing emphasis on PFCC highlights the importance of developing competencies among nurses, who play a pivotal role in fostering therapeutic relationships, improving patient and family satisfaction, and enhancing the overall healthcare experience for patients and their families (Kwame & Petrucka, 2021; Frakking et al., 2020).

However, intensive care units (ICUs) present unique challenges to delivering PFCC due to the prevalence of advanced medical equipment, such as life support devices, which can impede nurse-

patient interactions. Moreover, the primary focus on managing hemodynamic symptoms and treatment may divert attention from PFCC (Ramírez-Elvira et al., 2021). For ICU nurses, individual factors such as patient-centered communication (Joo & Jang, 2022), empathy (Choi, 2020), empowerment (Ramírez-Elvira et al., 2021), and moral sensitivity (Yim & An, 2023) significantly influence PFCC performance. In addition to individual factors, organizational aspects play a pivotal role. Leadership, a supportive organizational culture, a conducive work environment (Kang & Lim, 2019; Kang & Seo, 2021), and effective teamwork (Jeong & Park, 2019) are critical to fostering PFCC in ICU.

The person-centered nursing (PCN) theory, proposed by McCormack and McCance (2006), identifies essential nursing competencies for PFCC. These include professional competence, self-awareness, clarity of personal values and beliefs, and strong interpersonal skills. Nurses who possess these competencies are better prepared to implement the care processes of PFCC, ensuring alignment with and respect for individuals' values and beliefs, actively involving patients and families in shared decision-making, and providing holistic care (McCance & McCormack, 2006; 2016).

Professional competence encompasses the clinical knowledge and skills essential for patient diagnosis and treatment. ICU nurses, in particular, excel in technical skills that enable them to respond effectively to patients' physiological changes. To promote PFCC, nurses require knowledge and skills in managing physiological symptoms and comprehensive professional competency. This includes an in-depth understanding and application of PFCC principles and the ability to navigate and adjust facilitators and barriers within clinical settings (Walter & Robb, 2019).

Self-awareness involves understanding oneself as a PFCC practitioner and encompasses the ability to learn through self-reflection continuously. By cultivating self-awareness, nurses enhance their understanding of and empathy for patients and families, positively influencing PFCC practices (Abu Lebda et al., 2023). Additionally, ICU nurses must develop a clear recognition of their values

and beliefs while remaining attuned to the diverse ethical situations that arise in the ICU. They must demonstrate the ability to respect and align with patient and family choices, even when these differ from their own (McCormack & McCance, 2016).

Interpersonal skills are essential for forming therapeutic relationships with patients and families, enabling nurses to build trust and foster collaboration. ICU nurses often interact with patients on mechanical ventilation and their families during restricted visiting hours. Given these constraints, nurses must exchange information effectively and accurately, assess needs, communicate treatment plans, and facilitate shared decision-making (Joo & Jang, 2022). Therefore, in this context, patient-centered communication skills are crucial for enabling nurses to fulfill these responsibilities effectively (Kwame & Petrucka, 2021). Through empathy, nurses gain a deeper understanding of patients and their families, allowing them to provide individualized care tailored to each person's unique needs and preferences (Mirzaei Maghsud et al., 2020; Choi, 2020). Empathy is especially crucial in the ICU, where patients and families often face challenges such as post-traumatic stress disorder, depression, and anxiety. Addressing their psychological promotes treatment cooperation and enhances the overall quality of care (Ryu & Bang, 2016; Levett-Jones et al., 2019).

While the importance of strengthening PFCC competencies across various domains for ICU nurses is increasingly recognized (McCance & McCormack, 2016; Kiwanuka et al., 2019), studies reveal that nurses often lack training experience and awareness of PFCC practices (Jang & Kim, 2019). Furthermore, programs that enhance PFCC competencies for nurses remain limited, particularly those designed explicitly for ICU nurses. For instance, Kong (2020) developed a PFCC education program for nurses, nursing assistants, and caregivers working with elderly dementia patients in nursing homes, while Yoo (2018) created a program targeting clinical nurses (Yoo, 2020). While these studies are valuable as they focus on practicing nurses, they lack comprehensive content addressing the unique needs of ICU settings. Although some programs targeting ICU nurses have

been developed (Kim et al., 2011; Eggenberger et al., 2016; Walter & Robb, 2019; Beierwaltes, 2020; Sangi et al., 2023), these initiatives are often limited in their ability to address the competencies required for implementing PFCC within a robust theoretical framework. Many rely solely on theoretical sessions, which restrict their effectiveness in developing practical skills for clinical application. Adult and pediatric ICU differ significantly in terms of patient illnesses, family needs (Nam et al., 2023), nursing interventions (An & Ahn, 2020), and traumatic experiences.

Considering these considerations, developing a systematic and comprehensive educational program to enhance PFCC competencies specifically for adult ICU nurses is essential.

1.2. Purpose

This study aims to develop an education program to enhance PFCC competencies for nurses working in adult ICU. The specific objectives are outlined as follows.

1.2.1. Develop preliminary education program to enhance PFCC competencies among ICU nurses.

1.2.2. Evaluate the content validity of the developed program through feedback from experts group.

1.2.3. Evaluate the feasibility of the revised preliminary education program with ICU nurses.

1.2.4. Finalize the program based on the results of the feasibility evaluation.

1.3. Concept definition

1.3.1. Patient-and Family-Centered Care (PFCC)

(1) Theoretical definition: PFCC is defined as the planning, delivery, and evaluation of healthcare services based on a mutually beneficial partnership between healthcare providers, patients, and their families (IPFCC, 2018). It involves respecting the choices of patients and their families, making decisions together, and providing care that enhances their dignity and autonomy, thereby reinforcing the ethical demands of nursing. Through the formation of therapeutic relationships, holistic care is provided (Morgan & Yoder, 2012).

(2) Operational definition: In this study, PFCC refers to the levels of patient-centered communication skill, empathy skill, peer support and Person-centered Critical Care Nursing (PCCN) among ICU nurses.

1.3.2. PFCC education program

(1) Theoretical definition: PFCC competency refers to the nurse's ability to respect the beliefs of patients and their families, actively involve them, shared decision-making, express empathy, and deliver holistic care, based on the nurse's personal qualities and the surrounding care environment (McCormack & McCance, 2016).

(2) Operational definition: In this study, the term refers to a program developed by the researcher, based on McCormack and McCance's (2016) Person-centered Nursing (PCN) theory, aimed at enhancing the PFCC competencies of ICU nurses. The program includes training in professional competence, self-awareness, interpersonal skills, management of the physical environment, and peer support.

2. Literature review

This chapter provides an overall understanding of Patient- and Family-Centered Care (PFCC) in the context of intensive care units and reviews the competencies required of nurses to perform PFCC based on McCormack & McCance's (2006) Person-Centered Nursing (PCN) theory, along with an examination of currently developed programs to enhance PFCC competencies for nurses.

2.1. PFCC in ICU

PFCC involves respecting the individuality of families and integrating them into patient care through collaboration. The terms Patient- and family-centered care, Patient-centered care, and Person-centered care are often used interchangeably (Coyne et al., 2018).

This PFCC approach began in pediatric hospitals in the 1990s. As the healthcare paradigm gradually shifted towards a patients-centered approach—emphasizing the perspective, participation, and value of healthcare service consumers—efforts to meet the needs of patients and families and increase satisfaction gained attention (Fernández-Martínez et al., 2022). Consequently, the recognition of the importance of family and parental roles in the treatment of hospitalized children led to the widespread adoption of the PFCC philosophy, which is based on supporting and respecting family involvement in various aspects of nursing care (Jung et al., 2017).

The core elements of PFCC, as proposed by IPFCC (2018), include respect and dignity, participation, information sharing, and collaboration. Conceptual analyses by Jung et al. (2017) and Lacrocque et al. (2021) also identified key attributes such as respect, collaboration, support, and information sharing (Jung et al., 2017; Larocque et al., 2021). In other words, PFCC emphasizes

fostering participation through information provision and promoting partnership between patients, families, and healthcare providers across various care environments. As a result, patients and families are integrated as essential elements in the patient care process, shifting from passive roles to active participants in decision-making related to patient care (Coyne et al., 2018).

Currently, PFCC is applied to all age groups, including children, adults, and the elderly. Efforts to enhance the implementation of PFCC have been attempted among ward nurses, intensive care unit nurses (Joo & Jang, 2022), long-term care hospital nurses (Kim & Shin, 2020), and nursing students (Michael et al., 2019).

The intensive care unit (ICU) is a setting where patients are critically ill, surrounded by advanced equipment such as monitors and life-support devices. Approximately 50% of families of ICU patients experience issues such as anxiety, depression, and post-traumatic stress disorder (PTSD) due to factors like uncertain prognosis, reduced opportunities for interaction with healthcare providers, and separation from the patient (Johnson et al., 2019; Secunda & Kruser, 2022). In response to this ICU environment, numerous studies have been conducted to identify factors related to the promotion of PFCC. These studies have focused on various aspects, including personal characteristics and qualities of nurses, such as patient-centered communication skills (Joo & Jang, 2022), burnout and empowerment (Alhadidi et al., 2016), empathic competence (Choi & Song, 2022), emotional intelligence (Youn et al., 2022), and moral sensitivity (Yim & An, 2023). At the organizational level, factors such as teamwork, supportive organizational culture (Jung & Park, 2019), and work environment (Kang & Lim, 2019) have also been highlighted.

The benefits of PFCC have been documented across various dimensions: from the patient perspective, improvements in health outcomes and increased satisfaction (Goldfarb et al., 2017); from the family perspective, increased satisfaction, reduced anxiety and depression, and improved communication quality with healthcare providers (Dykes et al., 2017; Burns, 2020); and from the

healthcare provider perspective, increased job satisfaction, reduced nurse burnout and turnover intentions, and higher occupational satisfaction (Dykes et al., 2017). Additionally, the efficient use of healthcare resources, such as reduced readmission rates, shorter ICU stays, and fewer medical errors, has been reported as a benefit, further solidifying the case for PFCC (White et al., 2018).

Moreover, with the expansion of PFCC within healthcare systems, nurses have been identified as having the most significant impact on patients' and families' perceptions of PFCC and their overall healthcare experience compared to other healthcare professionals (Ben Natan, 2017), underscoring the importance of enhancing PFCC competencies through education and training for nurses (McCormack & McCance, 2016).

For the successful implementation of PFCC in the ICU, it is essential to understand the prerequisites, facilitators, and barriers, as well as the process and outcomes of PFCC interventions (Kwame & Petrucka, 2021). Prerequisites for PFCC include building trust between healthcare providers and families, healthcare providers' knowledge of PFCC, their commitment and positive attitude, active listening, and empathic skills. Facilitators involve effective interactions between healthcare providers and patients/families, timely information sharing, the ability to engage in patient-centered communication, appropriate education tailored to the patient's level of understanding, continuous family support, and institutional policies that broadly support, understand, and are willing to embrace change and innovation in PFCC. Barriers can be categorized into four areas: patient, family, healthcare provider, and environmental factors. Patient-related factors include invasive devices connected to the patient, unstable condition, patient demands, and fatigue. Family-related factors encompass stress, anxiety, fear, lack of understanding and distrust of healthcare providers. Healthcare provider factors include the burden of ICU work, time constraints, the perception that patient and family involvement disrupt workflow, lack of motivation or interest in PFCC, insufficient professional competencies, and poor communication skills. Finally,

organizational factors include the lack of awareness and interest in PFCC at the organizational level, hospital grading, work environment factors such as patient-to-nurse ratios, and ICU visitation policies (Heydari et al., 2020; Kiwanuka et al., 2019; Esmaeili et al., 2014).

Upon reviewing the current literature, it becomes evident that the improvement of PFCC can not only enhance nurses' competencies at the individual level but also getting supported by organizational level.

2.2. Nurses' competency to perform PFCC

2.2.1. Professional competency

Professional competency refers to the nurse's ability to integrate professional knowledge of patient diagnosis, treatment, and care planning into practice. The concept analysis of patient-centered care in the ICU (Jakimowicz & Perry, 2015) identified biomedical nursing practice and professional attitudes as key attributes. This professionalism in the ICU has also been confirmed in qualitative research related to the perception of patient-centered care from the patient's perspective (Hong & Kang, 2018).

A nurse's ability to respond swiftly to changes in the patient's condition, manage situations appropriately, and skillfully handle ICU devices and equipment is essential and naturally regarded as a necessary ability that builds confidence in patients and their families.

Due to the fundamental nature of this professionalism, it was deemed to have limited discriminative power in assessing patient-centered care levels among ICU nurses and was therefore excluded as an attribute in the development of tools for measuring the level of person-centered nursing in the ICU (Kang et al., 2018).

The professionalism of ICU nurses encompasses not only medical knowledge and technical proficiency but also an understanding of PFCC, which aligns with the fundamental philosophy of nursing that respects the individuality of patients and provides holistic care. It is emphasized that this competency should not remain only principles level but must be applied in practice, enabling the nurse to implement PFCC in the clinical settings based on knowledge, understanding, and experience.

2.2.2. Self-awareness

Through lifelong interactions with the social world, we grow and develop our personal meanings, beliefs, and values, shaping our sense of self. How individuals perceive themselves and construct their worlds can impact their practice of PFCC as professionals and influence their relationships with others. In this regard, “self-awareness” refers to how individuals understand their identity, presence, and growth as PFCC practitioners through reflection, self-awareness, and interaction with others.

This self-awareness is fostered through lifelong learning based on self-reflection and personal growth, highlighting the importance of a nurse’s ability to continuously learn by reflecting on their own actions (McCormack & McCance, 2006; 2016). This process enables nurses to better understand and regulate their emotions, remain calm and professional under stress, and enhance their empathy, focusing on providing care that meets patient needs, instilling trust and stability in patients and families, which forms the foundation of PFCC (Abu Lebda et al., 2023; Asai, 2011; Ayed et al., 2021). Nurses with these competencies can manage challenging situations in the ICU and gain confidence in delivering tailored care to patients from diverse cultural and religious backgrounds (Younas et al., 2020).

Programs aimed at enhancing self-awareness among nurses include Yoo's (2020) program, which provided clinical nurses an opportunity to reflect on the question "Who am I?" as part of PFCC competency enhancement. In another study, Kang & Bang (2017) developed a self-reflection program for pediatric ICU nurses who had experienced patient deaths, finding significant increases in personal growth and reductions in burnout in the intervention group (Kang & Bang, 2017). However, practical studies focusing on self-awareness among nurses remain limited (Rasheed et al., 2019), particularly in terms of providing education that incorporates the concept, importance, and opportunities for self-reflection related to PFCC for ICU nurses (Younas et al., 2020).

2.2.3. Clarity of values and beliefs

It is crucial for nurses to clarify their values and beliefs and recognize their impact on caregiving, requiring the ability to align their beliefs and values to promote PFCC. Such competencies positively influence moral sensitivity, allowing nurses to understand patient vulnerabilities and moral considerations in decision-making, ultimately enhancing caregiving efficacy and PFCC practice (McCormack & McCance, 2016). In the ICU, where many patients are in situations requiring decisions about life-sustaining treatment due to poor recovery prospects, healthcare providers and families often face the need to consider treatment withdrawal (Lee & Kim, 2017). In such situations, nurses must empathize with the emotions of patient families, recognize ethical dilemmas, and possess the capability to respect patient and family decisions, even when they differ from their own values and beliefs (Yim & An, 2023).

Moral sensitivity refers to the ability to uphold firm values, apply ethical knowledge in decision-making, respond swiftly, and recognize moral conflicts even amidst the urgency of the ICU environment. Clarifying one's beliefs and values plays a critical role in enhancing moral sensitivity,

especially for ICU nurses who frequently encounter terminal patients. Clear beliefs and values support careful and consistent decision-making in ethically challenging situations and improve responsiveness to the diverse values and needs of patients and families (Luo et al., 2023).

Studies on nurses' moral sensitivity have primarily focused on its relationship with end-of-life care performance among ICU nurses (Lee & Ahn, 2019), the relationship between moral sensitivity and person-centered care among nurses in long-term care facilities (Park & Park, 2018), and the impact of moral sensitivity on job satisfaction among emergency room nurses (Palazoğlu & Koç, 2019). To enhance clinical applicability, nurses need to clarify their values and beliefs, exploring the extent to which these align with their clinical practice. This process allows nurses to recognize the gap between their values and current practice, offering an opportunity to adjust or improve care in alignment with their ideals (Epstein & Street, 2011; McCormack & McCance, 2016). This foundation helps reduce conflicts between values and practice in ethically challenging situations, enabling consistent care for patients and families. Therefore, educational programs covering these topics are essential.

It is also worth noting that nurses' personal behaviors are heavily influenced by the culture, values, and philosophy of their organizations. For successful PFCC practice, developing and agreeing on shared beliefs and values at the organizational level is ideal. Specifically, aligning the team’s shared beliefs and values with behaviors observed in clinical practice is essential (McCormack & McCance, 2016).

Alanazi et al. (2024) highlight the ethical issues and palliative care practices encountered by nurses in end-of-life care, emphasizing that communication skills and the ability to involve patients in shared decision-making are essential yet challenging competencies for nurses. Consequently, education and organizational support are necessary for nurses to develop the skills and coping strategies required for this process (Alanazi et al., 2024).

For nurses to successfully implement PFCC, efforts at the organizational level are essential, not only strengthening nurses' competencies but also fostering a patient- and family-centered culture within the organization. This alignment sustains and develops individual behaviors in a way that promotes PFCC (McCormack & McCance, 2016; Vareta et al., 2023).

2.2.4. Commitment to the job

Commitment to the job reflects an intentional engagement in one's role, focusing on providing evidence-based, holistic care to patients and families (McCormack & McCance, 2016). A study interviewing nurses on factors hindering patient-centered care revealed that participants viewed job commitment as a critical factor for PFCC and noted that a lack of belief, commitment, and motivation hinders PFCC (Phiri et al., 2020). Job commitment positively impacts patient satisfaction and continuous professional development, making it essential for PFCC (Choi & Kim, 2023).

In this regard, commitment to the job aligns closely with job involvement, reflecting the extent to which organizational members identify with and engage in their roles. Studies indicate that self-leadership and job satisfaction positively influence job involvement (Sung & Lee, 2017), whereas emotional labor negatively affects both job involvement and job satisfaction (Gulsen & Ozmen, 2020). Emotional labor and work stress decrease job satisfaction and negatively impact PFCC, highlighting the need for skills to balance these factors (Jakimowicz et al., 2017).

However, personal commitment and job involvement may be difficult to maintain if they conflict with the organization's philosophy. Given that nurses' behaviors are heavily influenced by organizational factors, supportive nursing organizational culture is essential to enable effective PFCC practice based on job commitment (McCance & McCormack, 2016; Shin & Yoon, 2019).

Organizational culture can be categorized into innovation, relationships, hierarchy, and task

orientation. An innovative organizational culture fosters collaboration, builds trust, and adopts a visibly supportive approach. This culture enhances multidisciplinary collaboration and promotes high-quality care, empowering nurses' self-leadership and positively impacting patient-centered care (Jeong & Park, 2019). Research on ICU nurses has also shown that organizational culture type significantly affects job involvement (Kang & Park, 2023). In addition, to establish and spread a patient-centered care culture within nursing organizations, Shin & Yoon (2019) developed a measurement tool for assessing patient-centered care culture. Based on these findings, accurately understanding nurses' perceptions of organizational culture and identifying areas for improvement are essential, underscoring the need for relevant training (Shin & Yoon, 2019).

2.2.5. Interpersonal skill

Interpersonal skill, as discussed in the theory, refer to the practitioner's ability to communicate effectively with others in various situations, encompassing both verbal and non-verbal communication skills. This includes not only the ability to establish harmonious relationships with patients and families but also the capacity to develop these relationships into collaborative partnerships, deeply understanding and authentically empathizing with others' feelings and emotions in diverse situations.

(1) Patient-Centered Communication Skill (PCCS)

Patient-centered communication involves health-related goal-oriented interactions grounded in mutual respect, characterized by nonjudgmental, nondirective, and open dialogue that facilitates collaborative and continuous care aimed at disease prevention, well-being, and health promotion (Slatore et al., 2012).

ICUs require intensive care for critically ill patients, demanding nurses' rapid and precise responses facilitated by high-quality communication with patients, families, and healthcare teams (Bry et al., 2023). However, ICU nurses' communication competencies are reported to be lower than those of nurses in other departments, leading to challenges in forming therapeutic relationships with patients and families, increased stress and psychological burnout, low job satisfaction, and high turnover intentions (Adams et al., 2017; Kim et al., 2022). Conversely, high patient-centered communication levels among nurses' help establish therapeutic and trusting relationships with patients and families, preventing medical errors and delayed treatments, thereby optimizing patient health outcomes (Bry et al., 2023).

Communication between ICU nurses and patients is often hindered by factors such as altered patient consciousness, intubation, and the unpredictable, critical nature of the ICU environment. As a result, ICU nurses may adopt directive, brief, or even abrupt communication styles, with reduced emphasis on mutual engagement (Won & Kang, 2014). To address these challenges, scholars have emphasized the importance of education in overcoming communication barriers and improving nurses' communication skills (Kerr et al., 2022).

A patient-centered communication model for ICU nurses, based on the five attributes of Mead & Bower's (2000) Person-Centered Care framework, includes the following: The first attribute is the "Biopsychosocial" dimension, focusing on the patient's physical and mental state and explaining the purposes and procedures of nursing interventions to the patient or family. The second attribute, "Patient-as-person," emphasizes respect for the patient's individuality. The third, "Sharing power and responsibility," involves actively involving patients and families in treatment decisions. The fourth, "Therapeutic alliance," includes multidisciplinary collaboration and support. Lastly, "Clinician-as-person" involves nurses sharing their emotional experiences in the care environment with colleagues for support.

Among these attributes, nurses show the lowest frequency of communication in the areas of "Sharing power and responsibility" and "Therapeutic alliance." Specifically, "Sharing power and responsibility" includes encouraging patient and family participation in decision-making for therapeutic interventions, understanding their health beliefs and attitudes, and reflecting their needs, values, and preferences in care planning. "Therapeutic alliance" encompasses multidisciplinary collaboration, introducing support resources from other professional areas, long-term care planning, and communication related to end-of-life care (Slatore et al., 2012).

In a study by Park & Oh (2018), ICU nurses' communication competencies were evaluated using a tool developed by Yang (2013) based on Slatore et al.'s (2012) research. The study showed higher scores in the "Biopsychosocial" and "Patient-as-person" domains but lower scores in "Sharing power and responsibility" and "Therapeutic alliance," which aligned with Slatore et al.'s (2012) findings. Notably, communication frequency was lowest in the "Therapeutic alliance" domain, particularly in areas related to end-of-life care communication (Park & Oh, 2018).

These findings suggest that ICU nurses may view activities such as encouraging patient and family participation in decision-making and collaborating with other healthcare professionals as beyond their scope of responsibility. Additionally, they may limit communication with family members to avoid potential conflicts (Adams et al., 2017). Furthermore, ICU nurses have reported difficulties in engaging in therapeutic communication with families during end-of-life care, underscoring the need to incorporate this topic into communication training programs for nurses.

Communication training for ICU nurses has primarily focused on therapeutic communication with patients on mechanical ventilation. An integrative literature review on communication experiences and needs with intubated patients showed that common patient needs included requesting services or information related to physical, physiological, psychological, and emotional comfort and expressing their emotions or condition. Educational programs for nurses have also been

identified to enhance their awareness of intubated patients' needs (Noguchi et al., 2019).

Common tools used for effective communication with patients who cannot vocalize include picture boards and tablet-based communication devices. A qualitative interview study with nurses on communication with critical patients emphasized the need for training and knowledge about augmentative and alternative communication (AAC) devices (Sithole et al., 2017). Happ et al. (2015) conducted an intervention with three groups to enhance communication with intubated patients: a control group (a), a group that received basic communication skills training (b), and a group that received an additional two-hour session on electronic AAC device usage provided by a speech therapist with specialized training (c). Positive outcomes in communication frequency, duration, and pain and symptom management were observed in the intervention groups (b, c).

A study by Momennasab et al. (2023) applied an AAC board communication training program for ICU nurses in both face-to-face and online formats. The program received high satisfaction ratings from nurses, with improvements in communication knowledge, performance, and reduced negative emotions associated with the communication process. Another study provided an education program featuring scenario-based role-play, group discussions, and ICU experience sharing within small groups (Maatouk-Bürmann et al., 2016). Bowen et al. (2020) verified the effectiveness of a simulation-based intervention on communication for neonatal ICU (NICU) nurses in challenging communication situations.

However, these training programs tend to focus exclusively on communication competencies for ICU nurses, whereas PFCC encompasses a broader range of skills beyond communication alone (Peterson et al., 2021). Therefore, there is a clear need for the development of a comprehensive and systematic program that not only addresses communication skills but also enhances the full range of PFCC competencies.

(2) Nurses' empathy competence

Empathy is the ability to recognize, understand, and experience another person's thoughts, feelings, and intentions as if they were one's own and to effectively convey that understanding (Mirzaei Maghsud et al., 2020). Early scholars defined empathy as an emotional or cognitive element; however, from the late 1970s, studies began to include communicative aspects, and empathy is now regarded as a complex concept encompassing cognitive, emotional, and expressive (communicative) elements (Choi, 2019).

Empathy skill is essential for ICU nurses performing PFCC, as it impacts effective communication with patients and families, fosters positive relationships, and improves the quality of care (Mirzaei Maghsud et al., 2020). Empathy has also been identified as a key factor influencing patient-centered care performance (Lee & Kim, 2021). It is crucial for ICU nurses to understand patients' psychological needs, values, and preferences on behalf of families and to integrate them into care. Empathy training helps nurses meet patients' and families' psychological needs, supporting better understanding and individualized decision-making.

The cyclic empathy model focuses on the flow or sequence of interpersonal empathy. Barrett-Lennard (1981) viewed empathy as a process involving cognitive, emotional, and communicative flows, unfolding continuously across various levels. The first stage, "empathic attentiveness," involves actively and openly paying attention to others, incorporating the cognitive element of empathy. The second stage, "empathic resonation," involves understanding and emotionally engaging with others' experiences, integrating both cognitive and emotional dimensions of empathy. The third stage, "expressed empathy," focuses on expressing this understanding, emphasizing the communicative element of empathy. The fourth stage, "received empathy," is the internal perception of the degree to which one has been empathized with, and the fifth stage, the "cycle of empathy," is the feedback process through which additional expressions and empathic attentiveness lead to

further, expanded empathy (Barrett-Lennard, as cited in Yoon, 2023).

Training programs developed based on the cyclic empathy model have been studied in nursing students. Jeong & Kim (2019) developed an education program, verifying its positive effects on cognitive, emotional empathy, and interpersonal relationships. Additionally, Jung (2019) reported improved cognitive, emotional empathy, communication skills, and self-efficacy following a simulation-based program applying the cyclic empathy model. Sung & Kweon (2022) developed an empathy education program based on the cyclic empathy model and Rosenberg's (2015) Nonviolent Communication (NVC), confirming its effectiveness in self-esteem, empathy competence, cognitive and emotional empathy, interpersonal relationships, and communication skills in nursing students (Sung & Kweon, 2022).

An empathy training program for 80 ICU nurses was conducted over eight 90-minute sessions, focusing on four key elements of empathy: Visionism (understanding others' perspectives and experiences), Imagination (empathizing with others' emotions and experiences), Empathic Attention (actively focusing on and understanding others' emotions and experiences), and Personal Distress (experiencing a personal connection to others' pain and suffering) (Mirzaei Maghsud et al., 2020). The findings highlight the importance of incorporating cognitive, emotional, and expressive components into empathy training programs. Practical, experience-based approaches—such as case-based simulations, role-playing, and group discussions—prove effective in equipping nurses with the skills needed to apply empathy in real-world clinical settings, thereby enhancing their competence in empathetic practice.

Currently, however, empathy training programs specifically designed for ICU nurses remain scarce. To improve PFCC practice, it is crucial to develop a targeted program that focuses on enhancing empathy skills.

(3) Collaboration between Nurses, Patients, and Families

Collaboration, as one of the core concepts of PFCC, involves patients, families, and healthcare providers working together in the development, implementation, and evaluation of policies, programs, education, and research (IPFCC, 2024). Collaboration also serves as an ethical right, enabling patients to receive information and make decisions in partnership with healthcare providers, facilitating shared decision-making based on family involvement during the ICU journey (Force, 2022).

In the ICU, family involvement provides family members the opportunity to participate in patient care planning, support patients physically and mentally, and engage in decision-making (Dijkstra et al., 2023). Nurses must possess the competence to educate families and promote their participation. Additionally, providing appropriate information to families is essential for facilitating shared decision-making (Hsu & Lin, 2022). For shared decision-making, healthcare providers must deliver timely information on treatment options, risks, benefits, and alternatives, while families share the patient's values and preferences. Decision-making then proceeds as the most suitable option for the patient is considered (Hsu & Lin, 2022; Kon et al., 2016).

To date, the concept of collaboration has primarily focused on interprofessional collaboration among healthcare providers (Moirano et al., 2020). While efforts have been made to foster partnerships between healthcare providers and parents in pediatric care (He et al., 2021; Toivonen et al., 2023), initiatives aimed at enhancing collaboration between patients and providers in adult ICU remain limited. Barriers to nurses' engagement in shared decision-making (SDM) include limited knowledge about SDM, low self-efficacy, and negative attitudes (Kon et al., 2016). Nurses often view SDM as a physician's responsibility, deferring critical decisions to physicians despite recognizing the importance of these decisions (Slatore et al., 2012). Furthermore, most SDM-related education has been targeted at physicians (Witkop et al., 2021), underscoring the need for nurses to

develop a positive attitude towards SDM, acknowledge their critical role in the process, and acquire the competencies necessary to practice SDM effectively in clinical settings.

2.2.6. Peer support among nurses

Psychological well-being refers to an individual's satisfaction with life and overall happiness, encompassing their sense of fulfillment in various aspects of life. Social support has been identified as an effective factor in mitigating negative stress and enhancing psychological well-being (Velando-Soriano et al., 2020). ICU nurses frequently encounter physical and psychological stress due to the complexities of interpersonal relationships with patients' families and interdisciplinary teams, the high level of expertise required in the ICU, and the rapid changes in patients' conditions. Such stress can lead to increased burnout and turnover intentions among nurses (Bresesti et al., 2020). Moreover, social support plays a pivotal role in ICU nurses' ability to overcome negative environments following exposure to traumatic events, such as cardiopulmonary resuscitation, postmortem care, end-of-life care, massive hemorrhage management, conflicts with families and medical staff, and workplace violence. It has been identified as a significant factor influencing post-traumatic growth, characterized by positive changes such as personal growth and maturity (Min et al., 2022).

Peer support fosters a positive social and psychological work environment, indicating the degree to which colleagues, supervisors, mentors, and junior staff provide support related to work (Kim & Jung, 2022). Studies have explored the effects of peer support on turnover intentions and burnout among novice nurses (Kim & Lee, 2020; Lyu et al., 2024), the impact of peer support on work-life balance among nurses returning from parental leave (Jeong & Lee, 2020), and the effect on turnover intentions among male nurses (Yu et al., 2021).

Peer support can reduce job stress and turnover intentions, while enhancing psychological well-

being (Sen & Yıldırım, 2023), resilience (Kim & Kim, 2022), life satisfaction, job satisfaction, and work performance (Yu & Cho, 2018). Peer support also positively affects caregiving abilities, resulting in higher-quality care. The influence of organizational and peer support on nurses' psychological stability and job performance is particularly relevant for ICU nurses, who face high levels of psychological burnout and stress. Therefore, emphasizing the role of peer support in sustaining this support is essential.

A literature review on peer support programs in nursing and medicine (Pereira et al., 2021) included 11 studies, most of which targeted medical students, with only one study including nurses. Only two studies used a clear training manual or guidance to structure their programs, indicating the limited standardization and protocol development for peer support programs. Peer support was provided through face-to-face, online, or hybrid formats, with in-person programs being the most prevalent. These in-person programs incorporated elements such as counseling, role-playing, theoretical lectures, and supervision by mental health professionals. Online programs, primarily aimed at nursing students, utilized platforms like Facebook and e-mail to facilitate mutual support and address feelings of anxiety (George et al., 2013; Lau et al., 2007). House (1981) defined social support in four aspects: emotional support, evaluative support, informational support, and instrumental support. Emotional support conveys concern, trust, affection, and respect, fostering psychological stability. Informational support involves exchanging advice, information, and suggestions among colleagues for problem-solving, while instrumental support includes tangible acts, such as providing labor, money, or needed items. Evaluative support involves giving recognition or praise for individual actions, including work-related achievements. While there are various sources of social support, peer support is a prominent organizational support system (Kim & Kim, 2022).

Nurses' work involves rotating shifts and encompasses a range of physically and mentally

demanding tasks in the ICU, such as frequent patient repositioning, providing bed baths, delivering emergency care, performing CPR, and carrying out invasive procedures. Within this challenging environment, nurses often rely on interdependent teamwork, with peer support playing a pivotal role in enhancing organizational performance (Haruna et al., 2022). Furthermore, peer support is recognized as an essential factor in enabling nurses to apply and develop their professional competencies (Kim et al., 2021).

2.3. PFCC education programs in nursing area

This section reviews education programs conducted for nurses or nursing students aimed at promoting PFCC (Appendix 2). In South Korea, two relevant studies were identified. Yoo (2018) developed a person-centered nursing education program for clinical nurses, which included self-awareness, interpersonal skills, self-esteem, and peer support. The program consisted of six sessions, each lasting 60 minutes, held twice weekly over three weeks. Methods such as lectures, discussions, case presentations, and brain writing were utilized, with statistically significant improvements reported in self-awareness, interpersonal skills, peer support, and job satisfaction.

Kong (2020) developed a person-centered dementia care education program for nursing providers in elderly care facilities, including nurses, nursing assistants, and caregivers. The program content included the definition, components, assessment, planning, and intervention for person-centered dementia care. It was delivered through one 60-minute on-site session and one 60-minute online session, primarily in lecture format, and showed significant effects on attitudes toward personhood in dementia care (Kong, 2020).

Among studies focused on enhancing PFCC practices in nursing students, Leeuwen (2018) offered an education program throughout one semester (48 hours of theory and 480 hours of clinical practice) to foster knowledge, skills, and attitudes regarding person-centered care. A qualitative content analysis of 70 self-reflection reports submitted by students concluded that the program effectively enhanced students' self-awareness, understanding, and skills in person-centered care (Leeuwen & Jukema, 2018).

Kim (2023) developed a person-centered care education program incorporating empathy and communication skills for third-year nursing students, conducting two 65-minute sessions per week over two weeks. This program measured empathy, communication skills, and clinical stress, with significant improvements in all areas (Kim, 2023). Park (2022) provided a design-thinking-based person-centered care program for fourth-year nursing students, focusing on improving bedside care in ICUs. The program involved five weekly two-hour sessions and demonstrated significant effects on students' perception of person-centered care (Park et al., 2022).

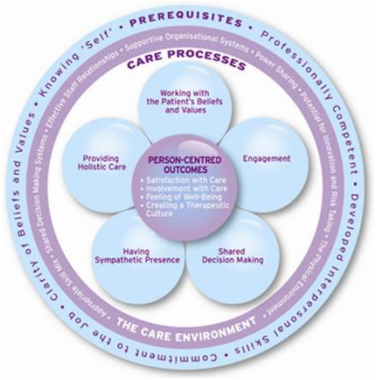
In a study by Laird-Fick et al. (2011), five nursing leaders were initially trained, who then educated 35 staff nurses. Faculty conducted two three-hour seminars for the nursing leaders, who subsequently introduced the same patient-centered model to nurses in four-hour sessions. One-on-one guidance continued until nurses mastered the model, along with supervision of nurse-patient interactions. The program emphasized skills for enhancing PCC, such as using the NURS (Naming, Understanding, Respecting, Supporting) interaction techniques and recognizing personal emotions. This training showed positive effects on nurses’ knowledge and self-efficacy (Laird-Fick et al., 2011).

Based on the programs reviewed, it is evident that PFCC competency enhancement programs for nurses remain limited, and comprehensive programs specifically targeting the competencies needed for PFCC practice among ICU nurses are scarce.

3. Theoretical framework

3.1. Person-Centered Nursing theory

The conceptual framework of this study is based on McCormack & McCance's (2010) theory of Person-Centered Nursing (PCN) (Figure 1). The theory by McCormack & McCance (2016) shares the philosophical background with PFCC and is composed of four structures: Prerequisites, Care Environment, Care Processes, and Outcomes. Specifically, it consists of prerequisites as individual competencies of nurses, the care environment in which care is provided, the processes through which person-centered care is delivered via various activities, and the resulting outcomes (McCance & McCormack, 2016).



Prerequisites
-Professional competency
-Developed interpersonal skill
-Commitment to the job
-Clarity of beliefs and values
-Knowing 'self'

Care environment
-Appropriate skill mix
-shared decision making system
-Effective staff relationships
-Supportive organizational systems
-Power sharing
-Potential for innovation and risk taking
-The physical environment

Person-centered care processes
-Working with the families' beliefs and values
-Engaging authentically
-Share decision making
-Having sympathetic presence
-Providing holistic care

Person-centered outcomes
- Satisfaction of care
- Involvement in care
- Feeling of well-being
- Creating the therapeutic culture

Figure 1. Person - Centered Nursing theory

In theory, the prerequisites include "professional competency," which emphasizes the nurse's professional knowledge and technical expertise and the ability to integrate knowledge into practice. "Interpersonal skills" refer to the ability to build relationships using verbal and nonverbal tools throughout the process of addressing a patient's unique concerns and exploring solutions. This encompasses therapeutic communication, empathy, and the ability to collaborate with patients and their families. "Commitment to the job" reflects a nurse's dedication to providing optimal care for patients and families. "Clarity of beliefs and values" involves recognizing one's own beliefs and values and understanding how these elements influence care for patients and families. "Knowing self" refers to gaining insight into one's own functioning as an individual, understanding internal

thoughts and emotions, and recognizing oneself as a social being who impacts others (McCormack & McCance, 2006; 2016).

Factors within the care environment include appropriate technology integration, shared decision-making process within organizations, effective interpersonal relationships among staff, supportive organizational systems, power sharing, opportunities for innovation and change, and the physical environment. These elements are interconnected with institutional policies, work conditions, atmosphere, and culture.

A well-rounded blend of skills is a critical concept in nursing, involving a comprehensive array of resources necessary for delivering high-quality care. In a multidisciplinary setting, this diversity of skills significantly enhances service quality. Nursing tasks require the integration of various skills, many of which are observable and objectively measurable. However, PFCC emphasizes not only technical proficiency but also the importance of subjective, comforting, and aesthetic experiences for patients, achieving a harmonious balance between technical and aesthetic aspects of care.

all related to institutional policies, work conditions, atmosphere, and culture.

A shared decision-making system supports collaborative, inclusive teamwork within or across teams. Effective staff relationships foster productive interpersonal interactions, essential for practicing holistic, person-centered care. Power sharing emphasizes non-dominant, non-hierarchical relationships among healthcare professionals, focusing on achieving optimal outcomes based on shared values, goals, hopes, and needs.

The physical environment considers the design of the care setting, noise, lighting, privacy, and safety to enhance the comfort and health outcomes for patients and families (McCormack & McCance, 2006; 2016).

These prerequisites and the care environment significantly influence nursing processes. In person-centered care, “being with the patient's beliefs and values” involves understanding the

patient's and family's values and perspectives and incorporating them into nursing and treatment, closely related to the attribute of personalization. "Participation" encourages patients and families to engage in goal-setting, care planning, decision-making, and direct care at various levels, reflecting the quality of the nurse-patient-family relationship. Participation levels range from full participation to partial participation or disengagement, with skilled nurses adjusting the degree of engagement based on patient condition and family preferences.

Shared decision-making involves nurses, patients, and families collaboratively setting goals and plans for care and treatment, reflecting their values, experiences, and concerns. "Being emotionally present" emphasizes the nurse's empathy, allowing patients and families to express their emotions and recognizing their unique value and individuality. "Providing holistic care" encompasses addressing the physical, psychological, social, and spiritual needs of patients, understanding factors within their environment, and collaborating with patients, families, and other healthcare providers (McCormack & McCance, 2006).

Ultimately, "satisfaction with care" and "well-being" reflect the positive effects when patients and families experience high quality of care, leading to increased satisfaction and reduced mental stress. This motivates healthcare providers to practice PFCC and contributes to job satisfaction. Additionally, harmonious interpersonal relationships among nurses play a vital role in establishing a healthy therapeutic organizational culture (McCormack & McCance, 2006; 2016).

Based on this theory, the conceptual framework presented in this study is illustrated in Figure 2. Competency in Patient- and Family-Centered Care (PFCC) requires a comprehensive understanding of its principles, as well as the ability to apply them effectively in clinical practice. Successful implementation of PFCC is rooted in self-awareness, enabling individuals to reflect on their experiences, thoughts, and attitudes. This self-awareness is complemented by emotional regulation, allowing nurses to respond calmly and professionally in high-stress situations. These

attributes enhance empathy, facilitating care that not only meets patient needs but also fosters trust and stability for both patients and their families. This process ultimately supports the delivery of high-quality patient- and family-centered care (Abu Lebda et al., 2023; Asai, 2011; Ayed et al., 2021).

With these competencies, nurses can confidently manage challenging situations in ICUs and provide tailored care to patients from diverse cultural and religious backgrounds (Younas et al., 2020). The ability to clarify one's values and beliefs and harmoniously apply them within the clinical environment is crucial, as are interpersonal skills. These skills encompass effective communication with critically ill patients and their families, the ability to express empathy in various situations, and the capacity to provide trustworthy information, fostering shared decision-making through patient and family engagement.

In the care environment, peer support represents the degree of assistance provided by colleagues, supervisors, mentors, and junior staff concerning job-related aspects (Cutrona & Russell, 1987). Additionally, "comfort" has been identified as an essential attribute of patient-centered care in ICUs (Kang et al., 2017). Issues such as noise-induced disruptions in sleep quality can lead to various complications for ICU patients. Focusing on patient-centered design, lighting management, and safety are areas in which nurses can act relatively independently (Joo & Jang, 2022). The ability to assess and manage these elements is a key PFCC competency and an essential nursing skill (McCormack & McCance, 2006).

In summary, core competencies for PFCC education for ICU nurses include professional competence, self-awareness, clarify of values and beliefs, interpersonal skills, the ability to manage the care environment, and the ability to provide peer support. This study aims to develop an educational program that integrates these competencies, focusing on enhancing patient-centered communication skills, empathy, and peer support among adult ICU nurses, ultimately refining and finalizing the program.

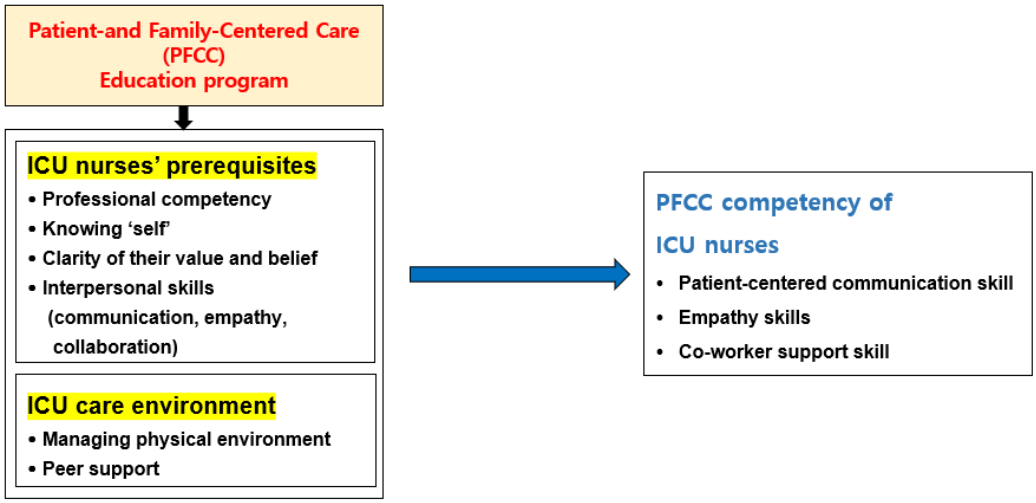


Figure 2. Conceptual framework of this study

4. Methods

4.1. Research design

This is a methodological study aimed at developing an educational program to enhance PFCC competencies for adult ICU nurses.

4.2. Research process

The PFCC education program for ICU nurses was sequentially developed based on the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. The ADDIE model is an instructional design framework that involves analyzing related literatures, educational needs, identifying solutions, designing, developing, implementing, and evaluating the outcomes of educational programs. Programs created using the ADDIE model are characterized by their systematic, iterative, and experiential approach, with each phase closely interconnected. The needs assessment conducted during the analysis phase ensures the development of programs tailored to learner requirements (Gustafson & Branch, 2002) (Figure 3). In this study, only the Analysis, Design, and Development phases of the ADDIE model were utilized to achieve the goal of developing the educational program.

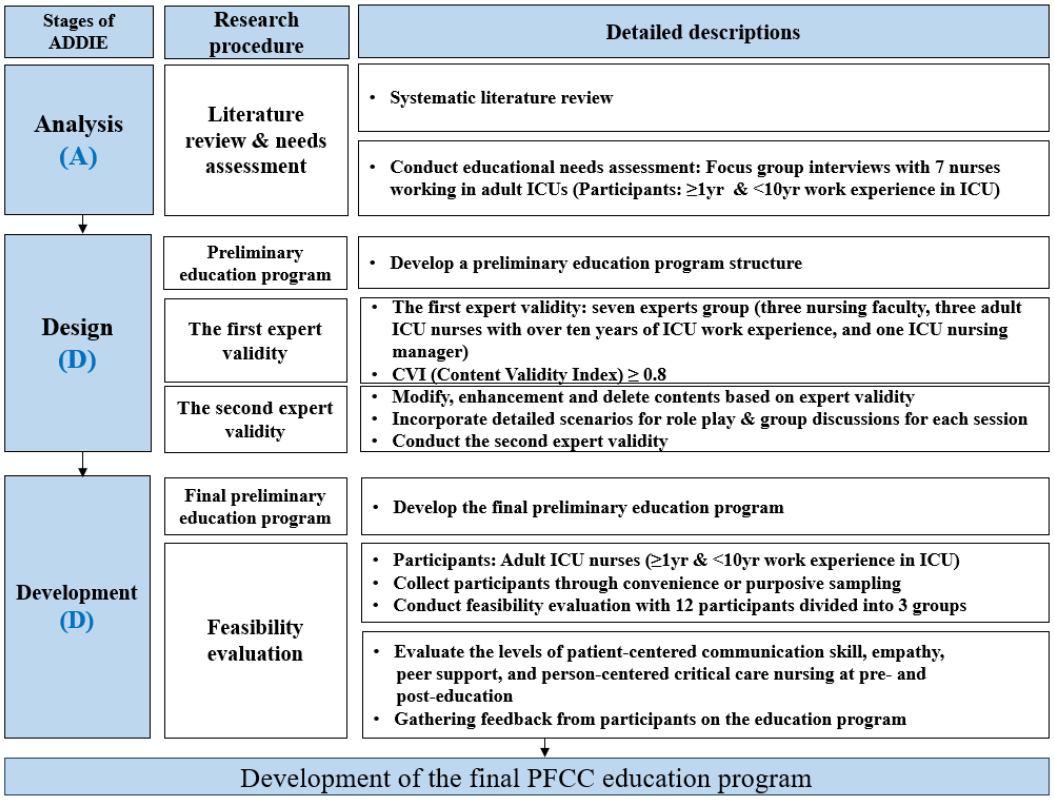


Figure 3. Process of program development

4.2.1. Analysis

(1) Literature review

A literature review was conducted, focusing on domestic and international studies, to effectively structure an educational program aimed at enhancing the PFCC competencies of ICU nurses. For the literature search, databases including PubMed, CINAHL, EMBASE, PsycINFO, Google Scholar, and RISS were used. The search period covered literature published from 2001 to May 10, 2024, including studies published in Korean and English as well as peer-reviewed articles.

The scope of the study was limited to publications from 2001 onward, aligning with the year

the Institute of Medicine (IOM) defined six key dimensions of patient-centeredness (IOM, 2001). The search strategy included both Medical Subject Headings (MeSH) terms and free-text words, combining keywords related to PFCC, such as “PFCC,” “Patient- and Family-Centered Care,” “Person-Centered Nursing,” “Person-Centered Care,” “Patient-Centered Nursing,” and “Patient-Centered Care.” It also incorporated terms related to nurses, including “RN,” “Nurse,” and “Nurse*,” as well as ICU-related terms such as “Intensive Care Units” and “ICU*,” using combinations of “AND” and “OR” to refine the search.

(2) Focus group interviews

In addition to the findings from the literature review, focus group interviews were conducted with ICU nurses to capture their clinical experiences and educational needs, which would be incorporated into the program content.

① Participants

The inclusion criteria for the focus group interviews encompassed registered nurses with 1 to 10 years of experience in adult intensive care units (ICUs), actively engaged in shift work, and currently providing direct patient care. A total of seven participants were recruited through a combination of convenience sampling and snowball sampling techniques.

② Interview procedures

Data collection was conducted over June 2024. Following Institutional Review Board (IRB) approval, recruitment announcements were posted in each adult ICU department with approval from the nursing education department. Convenience and snowball sampling methods were used to select participants who met the criteria among nurses who volunteered. Before the interviews, participants

received detailed explanations of the research purpose, procedures, and methods, and written consent was obtained.

Despite the increasing emphasis on the importance and necessity of PFCC within the healthcare system, research on this topic in South Korea has only gained momentum since 2018. As a result, domestic nurses' understanding of PFCC concepts and attributes may remain limited. Considering that a lack of theoretical foundation in qualitative research can result in anecdotal participant responses and restrict their applicability to broader contexts (Nguyen et al., 2022), this study developed interview questions grounded in the theoretical framework of Patient-Centered Nursing (PCN) to adequately capture the experiences and educational needs of nurses (Table 1). Additionally, the interview guide was distributed two days in advance to allow participants time to reflect on their responses.

The interviews consisted of three stages: introduction, main discussion, and conclusion. In the introductory stage, participants were encouraged to freely share their PFCC experiences to reduce anxiety and facilitate a natural transition to the main discussion. During the main discussion, participants were prompted to share their experiences and educational needs as fully as possible. If participants struggled to respond or hesitated, simple examples were provided, or additional time was given for reflection. A critical and flexible approach, rather than rigid adherence to a predefined framework, is necessary in qualitative research (Shelton et al., 2017). Accordingly, participants were given the opportunity at the conclusion of the interview to reflect on any unshared responses or to offer additional insights.

To accommodate the scheduling constraints of shift nurses, the seven participants were divided into two groups, with each group conducting a single session lasting 60-80 minutes. Interviews were held in a quiet study room free from interruptions, at a time that accommodated all participants. Immediately after each interview, recordings were transcribed, and to ensure confidentiality and

anonymity, each participant was assigned a code number. In appreciation for their participation, each participant received a 50,000 KRW coffee voucher delivered via mobile.

Qualitative data were analyzed using content analysis to integrate lower categories into higher categories (Elo & Kynga, 2008). By listening to the recorded focus group interviews and transcribing participants' statements, the transcribed content was read repeatedly to grasp the overall meaning of each response. Similar statements were grouped and categorized by identifying common concepts or phrases in participants' responses.

Table 1. Interview questionnaire for in-depth interview

Type of question	The contents of question
Introductory Question	Have you ever heard of patient -and Family-Centered Care (PFCC)? What do you think it is about?
Main questions	What competencies do you think a nurse needs to perform PFCC in the ICU?
	What do you think self-awareness is? And through self-awareness, what kind of competencies do you think a nurse needs to perform PFCC?
	Have you ever reflected on the importance of clarifying your beliefs and values, as well as your commitment to the job, in delivering PFCC? What kind of education do you think could support this reflection?
	Can you share your experiences communicating with patients or their families while working in the ICU? What type of education or training do you think is necessary to enhance these communication skills?
	If you have expressed empathy towards patients or their families in the ICU, could you describe the experience? What education or training do you think is needed to strengthen nurses' ability to express empathy?
	What are your thoughts on collaborating with patients and families in the ICU? What competencies or types of education do you think are essential for nurses to maintain and improve collaboration?
	What support do you receive while working in the ICU? What efforts or education do you think are necessary to manage the physical environment of the ICU effectively?
Closing question	If you have any additional thoughts or suggestions regarding education to enhance PFCC competencies for ICU nurses, please feel free to share them.

4.2.2. Design

1) Developing the preliminary education program

During the design phase, the educational content was structured by integrating key domains of the PCN theoretical framework based on findings from the literature review and focus group interviews conducted in the analysis phase.

Previous studies suggest that educational interventions with six or more sessions yield clearer effects, and based on studies demonstrating the effectiveness of six-session programs for nurses, this study also consisted of a total of six sessions (Sung & Kweon, 2022; Kim, 2023; Yoo, 2020). Considering that the participants are shift nurses, making regular face-to-face education challenging, three sessions were designed as in-person, while the remaining three sessions were conducted through synchronous virtual classes. This approach was based on studies indicating that face-to-face and virtual education formats are equally effective in enhancing nursing knowledge and skills (Saitoh et al., 2023) and that blended learning approaches provide flexibility while maintaining engagement and interaction in clinical training settings (Du et al., 2022).

2) Expert validations of program

The preliminary educational content underwent two rounds of expert validation. The expert panel consisted of three nursing faculty members, three nurses with over ten years of ICU experience, and one ICU nursing manager, totaling seven experts. The validity of the content for each domain was evaluated on a 4-point scale (1 = very inappropriate to 4 = very appropriate), and a Content Validity Index (CVI) was calculated. An open-response section allowed experts to freely provide feedback, with a CVI threshold set at 0.8 or higher for each item. Based on the results, modifications, additions, and deletions were made to the content in response to expert feedback.

Following the first validation, the revised and finalized content was structured into six sessions, each comprising specific learning topics, objectives, and corresponding content. For each session, tailored scenarios utilizing cases were developed to align with the topics and the ICU context for practical exercises. Each case was evaluated for its relevance and appropriateness in relation to the session topic and ICU setting, using the same 4-point scale during the second validation. An open-response section was also included to collect additional qualitative feedback.

4.2.3. Development

1) Development of the final preliminary education program

Based on the results of the second expert validation, revisions were made to finalize the session contents, educational plan, and materials for the feasibility evaluation targeting adult ICU nurses.

2) Feasibility evaluation

A feasibility evaluation was conducted with 12 nurses in adult ICU to evaluate the applicability of the developed PFCC education program.

(1) Research Design

The feasibility evaluation followed a one-group pre-posttest design (Table 2).

Table 2. Research design of the feasibility evaluation

Group	Pre-test	Intervention	Post-test
One group	E1	X	E2
Patient- centered communication skill	0		0
Empathy	0		0
Peer support	0		0
Person-centered critical care nursing	0		0
General characteristics	0		

Note. E=Experimental group; X=PFCC education program.

(2) Participants

The participants were nurses with 1 to 10 years of experience in adult ICUs. Based on Benner's (1987) model of expertise, clinical nursing experience is categorized into five stages: novice (up to 1 year), advanced beginner (1–3 years), competent (3–6 years), proficient (6+ years), and expert (10+ years). Considering that ICU adaptation typically requires a minimum of nine months (Park et al., 2011), the study included nurses with at least one year of experience. The inclusion criteria were as follows: (i) nurses currently working in adult ICU and (ii) shift nurses directly involved in patient care. Nurses not engaged in direct patient care were excluded. The sample size was based on previous studies developing nurse-targeted programs, with feasibility evaluation participation ranging from 5 to 15 nurses (Shin et al., 2022; Song, 2018), leading to a planned sample of 12. Participants were divided into three groups based on their shift schedules, with each group consisting of 3, 4, and 5 individuals, respectively.

(3) Research instruments

A. Patient-Centered Communication Skill (PCCS)

Patient-centered communication skill was assessed using a tool developed by Joo et al. (2024) based on Slatore et al. (2012). This scale consists of 12 items divided into three subscales: information sharing (5 items), patient-as-person (4 items), and therapeutic alliance (3 items), rated on a 5-point Likert scale. Higher scores reflect greater levels of patient-centered communication. The tool's original Cronbach's alpha was 0.84.

B. Empathy

Empathy skill was assessed using a scale adapted by Lee and Seomun (2016), originally developed by Lee (2014) for nurses. The 17-item scale is divided into three subscales: communication ability (8 items), sensitivity (5 items), and insight (4 items). Responses were rated on a 5-point Likert scale, with higher scores indicating stronger empathy skills. The original Cronbach's alpha for the overall scale was 0.91, with subscale reliabilities of 0.88 for communication ability, 0.77 for sensitivity, and 0.73 for insight. In a study by Kang et al. (2023), the tool demonstrated a Cronbach's alpha of 0.88.

C. Peer support

Peer support skill was assessed using the Social Provision Scale (SPS), originally developed by Cutrona and Russell (1987) and later adapted by Yang (2013). This 20-item scale includes subscales for attachment, social integration, opportunity for nurturance, reliable alliance, and guidance, measured on a 5-point Likert scale. Higher scores indicate greater levels of peer support. The Cronbach's alpha of 0.94 reported by Yang (2013) and 0.91 by Cho et al. (2018).

D. Person-centered Critical Care Nursing

PCCN competency was assessed using the Person-centered Critical Care Nursing (PCCN) scale, developed and validated by Kang et al. (2018) for ICU nurses. The 12-item scale includes subscales for empathy (4 items), individuality (4 items), respect (4 items), and comfort (3 items), using a 5-point Likert scale. Higher scores indicate higher levels of PCCN. The Cronbach's alpha was 0.84 in the original study and 0.80 in Joo & Jang (2022).

(4) Research procedures and data collection

Following approval from the Institutional Review Board (IRB), the study was conducted with the support of ICU department heads. Recruitment notices were distributed across adult ICU, and participants meeting the inclusion criteria were recruited using convenience, purposive, and snowball sampling methods. Eligible participants were provided with a detailed explanation of the study's purpose, content, and procedures, and informed consent was obtained on the first day of the educational program. To accommodate shift schedules, the 12 participants were organized into three groups. The six-session program was implemented over four weeks, with sessions 1, 3, and 6 conducted in person and sessions 2, 4, and 5 delivered synchronous virtual classes.

(5) Data analysis

Data were analyzed using IBM SPSS/WIN 25.0 software.

A. General characteristics, patient-centered communication skill, empathy skill, peer support, and Person-centered critical care nursing (PCCN) levels were analyzed using descriptive statistics, including frequencies, percentages, median, and range.

B. Changes in pre- and post-program scores for patient-centered communication skill, empathy skill, peer support, and PCCN levels were analyzed using the Wilcoxon Signed-Rank test.

(6) Ethical considerations

This study was approved by the IRB at S university hospital (IRB No. H-2404-128-1534). On the first day of education, participants were provided with an information sheet and received a detailed explanation of the study's purpose, methods, benefits, and risks. They were informed of their right to withdraw from the study at any time without penalty and assured that all study-related records would be deleted by the researcher. Data were anonymized and used exclusively for research purposes, with written informed consent obtained from all participants.

3) Evaluation of feasibility

The feasibility of the education program was evaluated by comparing pre- and post-training assessments of patient-centered communication skill, empathy skill, peer support, and PCCN competency. After completing the education, group interviews were conducted to collect feedback on the program's strengths, areas for improvement, and suggestions from participants. Each interview lasted approximately 20–30 minutes, was audio-recorded, and subsequently transcribed for analysis.

4) Researcher preparation

The researcher has over 15 years of experience in adult ICU at a tertiary hospital, has led clinical practice sessions and case conferences for nursing students, and has conducted PFCC-related research since master's studies. The researcher completed qualitative research courses during PhD program, participated in the simulation championship course at Yonsei University College of Nursing, and obtained a level 1 leadership certificate through a 5-week communication and debate leader course from a certified lifelong education center in Korea.

5. Results

5.1. Analysis

5.1.1. Literature review

In line with the purpose of this study, a literature review was conducted to develop a PFCC competency enhancement program for ICU nurses. The results are summarized as follows (Table 3).

A review of 10 studies examined factors influencing PFCC practices among ICU nurses. These studies, published between 2011 and 2023, were analyzed with a focus on variables significantly affecting PFCC, particularly those related to nurse competencies and the care environment (Appendix 3). In interpersonal competence, key communication skills included patient-centered communication and comprehensive communication abilities. Empathy skill was identified as another crucial element, with empathy satisfaction and emotional intelligence emerging as its core components. Nurses with higher levels of empathy satisfaction and emotional intelligence were found to provide superior care to patients and families, underscoring the importance of these factors. Additionally, moral sensitivity, defined as the ability to recognize and address moral conflicts, emerged as a significant variable. Nurses who clearly understand their beliefs and values demonstrate greater moral sensitivity, effectively navigating and resolving complex situations (Hosseinabadi et al., 2020). Psychological empowerment and self-efficacy, closely related concepts, were also identified as influential variables. Greater psychological empowerment was associated with increased confidence in one's role, enhanced professionalism, and improved PFCC practices. In terms of the care environment, factors such as social support, ICU visitation policies, and structural empowerment at the organizational level were identified as significant contributors to

PFCC practices.

The qualitative research findings related to experiences, educational needs, and strategies for implementing PFCC among patients and nurses are presented in Appendix 4. A total of six studies were included, primarily focusing on adult and pediatric ICU. These studies explored the perceptions, educational needs, and experiences of PFCC from the perspectives of patients and nurses, as derived from the interview content. An analysis of the qualitative findings, grounded in the PCN theoretical framework and focusing on nurse competencies, revealed that key factors contributing to professional competence included knowledge and understanding of PFCC, evidence-based nursing, and motivation for practical application. In self-awareness, essential competencies identified were recognizing one's clinical capabilities, understanding oneself, and managing personal emotions effectively. In clarifying values and beliefs, the findings underscored the importance of nurses possessing a strong sense of ethical responsibility in carrying out their duties. While nurses expressed pride in their roles, they also reported challenges in balancing the demands of multiple responsibilities while practicing PFCC, which sometimes negatively impacted their performance. Thus, striking a balance among these factors enhanced empathy satisfaction and positively influenced PFCC practices. Regarding communication competence, critical factors included engaging in therapeutic communication with patients on mechanical ventilation, providing timely and accurate information to patients and families, and practicing active listening with empathy. Within the care environment, essential elements were maintaining high-quality teamwork among healthcare professionals, offering practical support to colleagues, and creating a family-friendly atmosphere. This atmosphere was influenced by hospital policies, physical structures, and ICU facilities designed to foster collaboration and support family involvement.

Five studies were identified that focused on educational interventions to enhance PFCC competencies among ICU nurses (Appendix 5). The study designs included three quasi-experimental

(non-RCT) and two mixed-method studies. Of these, three studies were conducted in adult ICU, one in neonatal ICU, and one in pediatric and adult ICU.

The content of the education programs was analyzed using the domains of the PCN theoretical framework (Appendix 6). In the domain of professional competence, the programs focused on knowledge, effects, core concepts, barriers, and strategies for overcoming challenges related to PFCC. They addressed key issues identified from the experiences of patients and families in the ICU, with an emphasis on evidence-based PFCC interventions. To facilitate the integration of knowledge into practice, the interventions included supervised meetings between nurses and families, guided by nurse managers, and group discussions among participants centered on clinical cases. Additionally, challenges encountered during the implementation of PFCC in real clinical scenarios were discussed with project managers, fostering collaborative problem-solving and enhancing the practical applicability of the programs.

In terms of interpersonal skills with patient families, the primary focus was on therapeutic communication skills and empathy competence. One specific program was identified to foster collaboration between nurses and families (Kim et al., 2023). The educational content to improve collaboration included training in communication skills, conflict resolution strategies, and understanding family needs for practical application.

However, no content related to commitment to the job or the clarification of beliefs and values was identified in the literature. In the self-awareness domain, storytelling based on the experiences of nurses and ICU families was employed to encourage self-reflection.

Within the PCN framework's care environment domain, nurse managers' training sessions emphasized communication skills, feedback techniques, and motivational strategies to cultivate a supportive organizational culture.

Table 3. Study review on nursing competency in Patient-and Family-Centered Care

Domain	Sub-domain		Contents	Included study
Prerequisites	Professional competency		• Knowledge and understanding of PFCC • Motivation for performing PFCC • Professional expertise in nursing skills • Updated nursing techniques based on scientific evidence • Integration knowledge into practice	B5,6 C1,2,3,4,5
	Knowing self		• Self-reflection on action • Self-understanding (emotions, attitudes, competencies etc.)	B2, B6 C2, C3
	Clarity of values and beliefs		• Ethical responsibility (Clarifying values and beliefs serves as an essential element in fulfilling ethical responsibilities) • The ability to harmonize one's value and beliefs in clinical settings (The ability to respect & listen to the emotions and values of patients and families, while harmonizing them with the nurses' own values and beliefs.)	A10, B2
	Commitment to the job		• Balancing the dedication to practicing PFCC with the demands of other responsibilities	B6
	Interpersonal skill	Communication skill	• Therapeutic communication with mechanically ventilated patients	B6
			• Shared information (Provide concise information about diagnosis, treatments and prognosis)	B3,4,5, C3
			• The skills required for developing therapeutic conversation with families	B2,4, C1,2,3,4

		Empathy	• Empathy satisfaction	A2, A4, A9
			• Emotional intelligence	A5,6
			• Active listening, Empathy expression skills	B1, B2, B4, C1, C2, C5
		Collaboration	• Meeting the needs and values of patients & families • Participation of patients and families (involve in care, decision making) • Provide individualized information • The skills of promoting shared decision making	B1, B3, B4, B5, C1
Care environment	Effective staff relationships		• Social support	A7
	Supportive organizational system		• A high functioning team & support, effective Teamwork	B1
			• Qualified nurse manager	C5
			• Visiting policy	A6, B6
	Physical environment		• Facilities on the ward (Design, privacy, spaces for families etc.)	B5

Note: Studies from A1 to C5, as demonstrated in p129-131.

5.1.2. The results of the focus group interview

1) General characteristics of participants

The general characteristics of the focus group interview participants are summarized in Table 4. The group included one male and six females. In terms of total work experience, six participants had less than five years of experience, while one participant had between 5 and 10 years of experience. Regarding educational background, all participants except one had a bachelor's degree.

Table 4. General characteristics of participants in focus group interview (n=7)

No	Gender	Age	Education	Year of experience in ICU
R1	F	26	Master's degree	2Y 8M
R2	M	31	Bachelor's degree	2Y 5M
R3	F	30	Bachelor's degree	2Y 10M
R4	F	26	Bachelor's degree	3Y
R5	F	28	Bachelor's degree	4Y 5M
R6	F	29	Bachelor's degree	3Y 8M
R7	F	34	Bachelor's degree	9Y

Note. F=female; M=male; Y=years; M=month.

2) Content analysis

The focus group interview results were analyzed using a qualitative content analysis method. Through repeated readings of the participants' statements and integration of similar content, the data were categorized into 32 codes and 13 subdomains, focusing on experiences with PFCC and educational needs (Table 5, Appendix 7).

Table 5. Content analysis of focus group interview

Theme	Sub-theme	Code
Perception of PFCC	Lack of understanding about PFCC	No prior knowledge or insufficient understanding
		Difficult to consider practical application in clinical practice
	The importance of enhancing PFCC expertise	Understanding PFCC should come first
		Providing information based on professional knowledge is necessary
Perceived challenges	Communication	Difficulty in recognizing the intentions of patients on mechanical ventilation
		Handling the demanding needs of patients with delirium
		Reluctance to communicate with emotionally upset family members
		Difficulty in responding to questions about uncertain prognoses
		Family members unaware of the patient's core values and preferences
		Belief that explaining the treatment plan is the doctor's role
		Experiencing the limitations of the nursing role in providing information to families
		Uncertainty in understanding how to express empathy
		Difficulty expressing empathy to families of terminal patients
	Role empowerment	Dedication as a nurse within the boundaries of a job framework rather than a calling.
		Feeling insufficient in meeting patient needs despite giving one's best effort.
	Organizational support	Need for efforts to actively involve patients and families
		Frequently gets pressure due to a busy workload
Required competencies and education for PFCC practice	Self-awareness	Gaining a perspective to look inward at oneself
		Awareness of how personal beliefs and values influence caregiving
		Flexibility to harmonize with the beliefs and values of patients and families
	Therapeutic communication skills	Support needed in determining the scope of information provision
		Required ability to explain in ways understandable to patients and families
		Supporting decision-making that reflects the values and needs of patients and families
		Empathy is a fundamental and essential element in nursing

		Learning strategies to effectively express empathy
	Family participation	Families as important collaborators
		Supporting family participation within acceptable boundaries
		The importance of providing patients and families with continuous information about treatment goals and plans.
	Peer support	My essential colleagues
		The importance of peer learning and support through sharing experience

(1) Perception of PFCC

① Lack of understanding about PFCC

Nurses reported having little to no prior exposure to PFCC, apart from brief mentions during academic coursework. Even those with theoretical knowledge found it challenging to apply PFCC in clinical settings due to a lack of practical experience.

"I think I've heard of it before. I just know the term." (R4)

"I've learned about it theoretically during school, but I wasn't sure if it could be applied in clinical practice. As expected, now that I'm working, it feels like there's a lack of practical connections to apply it, and I've ended up forgetting about it." (R7)

② The importance of enhancing PFCC expertise

Due to the insufficient understanding and experience with PFCC, participants emphasized the need for education to foster a deeper understanding. They also highlighted the importance of nurses possessing specialized knowledge about patients' conditions, treatment processes, and prognoses to provide accurate information to patients and families.

"PFCC seems like an important concept, and having education on it could be highly beneficial for providing higher-quality care." (R1)

"In the ICU, it is essential to provide professional, objective information about the current situation and ensure nurses are knowledgeable enough to guide patients and families based on treatment direction." (R4)

(2) Perceived challenges

① Communication

Nurses faced challenges communicating with mechanically ventilated or delirious patients, which hindered their ability to identify needs or fulfill requests. They also struggled to manage interactions with emotionally distressed families and address questions about uncertain prognoses, often deferring explanations to physicians. Additionally, a limited understanding of empathy or avoidance of expressing it, particularly with the families of terminal patients, stemmed from concerns about appearing insincere or overly formulaic.

"Patients with mechanical ventilators can't speak, which makes communication frustrating. If they're not deeply sedated, they try to communicate, but without words, it becomes challenging. Delirious patients, on the other hand, often have disorganized speech or requests, making effective communication even more difficult." (R5)

"Patients with delirium sometimes have disorganized communication, and when they repeatedly make nonsensical demands, it becomes exhausting since conversations don't lead anywhere." (R7)

"Sometimes, when an unscheduled patient arrives postoperatively with unstable vitals, I'm still assessing the patient's condition, but the family demands immediate explanations, often angrily." (R2)

"Even though we explain the patient's condition objectively, families still ask questions like, 'What are the chances of survival?' I don't know what to say in those moments." (R5)
"Since I was a new nurse, I've been told to refer families wanting detailed consultations or information to the attending physician." (R5)

"I feel that what families want most is to hear positive reassurances, like the patient will recover, regain health, or be discharged from the hospital." (R3)

"A patient's wife had her final visit and was overwhelmed with grief. She decided to sign the POLST (Physician Orders for Life-Sustaining Treatment) and discontinue treatment. She grabbed me, crying and saying she didn't know how to continue living. I didn't know what to do in that moment." (R1)

"Even when I try to express empathy, it might sound formulaic or insincere, so I'm cautious about it." (R1)

② Role empowerment

Participants focused on maintaining professional ethics and appropriate dedication within their work hours rather than emphasizing a sense of personal calling. Although they strove to meet patient needs with passion for PFCC, they faced realistic constraints due to competing responsibilities.

"Rather than a sense of calling, I focus more on professional ethics as a nurse." (R1)

"Patients complain about dry mouths or discomfort. I also have to monitor vitals, administer medications, and complete other tasks. While I try my best to address their needs, patients often see me as a bad caregiver for not prioritizing their requests." (R1)

"A ventilated patient kept insisting they had something to say, banging on the bed rails. I tried to understand, asking them to write, but I didn't have the time to stay by their side until they conveyed their message." (R2)

③ Organizational support

Participants emphasized that achieving harmony between personal beliefs, values, and clinical practice, while maintaining professional passion, requires not only individual competencies but also organizational support and an enabling work environment.

"I believe patients have the right and duty to actively participate in their treatment process. However, in clinical settings, this doesn't seem to be well-supported due to issues such as time, staffing, and structural limitations. To address this, efforts need to be made at the organizational level rather than solely focusing on individual nurses." (R1)

"It would be helpful if we had conditions that allow us to dedicate time to family interactions, like allocating 10 minutes during family visiting hours specifically for family consultations, with additional staff support to handle other tasks during that time." (R5)

"I want to spend more time empathizing with patients, but when I'm managing two ventilated patients with unstable vitals, it's almost impossible." (R1)

(3) Required competencies and education for PFCC practice

① Self-awareness

Participants noted the importance of self-awareness, including understanding their own beliefs, values, and abilities, as well as objectively evaluating their strengths and weaknesses. They also recognized the need for flexibility to respect and prioritize patients' and families' values while maintaining their own beliefs and values.

"I think it's essential to understand and accept myself fully." (R1)

"If nurses know their own competencies, develop their strengths, and address their weaknesses, they can provide higher-quality care." (R3)

"A nurse's beliefs and values can directly or indirectly influence patients. Therefore, it's necessary for nurses to clearly recognize their own beliefs and values." (R1)

"When practicing PFCC, nurses will encounter patients and families with diverse beliefs and values. Nurses need to be flexible enough to prioritize patients' and families' values without compromising their own." (R7)

② Therapeutic communication skill

Nurses highlighted the need for manuals or protocols to guide clear and family-centered information-sharing, enabling shared decision-making. They recognized empathy as essential for PFCC and expressed a strong need for training on effectively conveying empathy and comfort, particularly within time constraints.

"Some nurses provide detailed explanations, like naming specific vasopressors. The next day, family members might ask, 'How many vasopressors are being used today?' It shows that the previous nurse decided on their own how much to share. We're essentially setting our own boundaries for what information we provide to families." (R4)

"It would be helpful for new nurses to have protocols for information-sharing—what to share, where to start, and how to provide opportunities for families to ask questions along the way." (R7)

"Nurses should be able to explain professional knowledge in lay terms and facilitate communication to resolve differences in opinions between patients, families, and healthcare providers." (R1)

"The empathy of nurses is very important. By putting yourself in the family's shoes and thinking of the patient as your own family member, I believe we could deliver better Patient- and Family-Centered Care." (R4)

"I think learning ways to effectively express empathy within a short amount of time would be beneficial." (R2)

③ Family participation

Nurses acknowledged the positive impact of involving family members as active participants in a patient's care on recovery outcomes. They observed that when families encouraged patients or

participated in simple caregiving activities, patients demonstrated increased motivation and engagement in treatment. However, they also recognized the importance of setting boundaries for family involvement to ensure it remained within safe and appropriate limits.

"During visiting hours, if family members say something as simple as, 'The nurses will help you with a lot of things today, so make sure to do your breathing exercises well,' patients often put in great effort. They respond very well to such encouragement." (R3)

"One patient's son learned how to insert a Foley catheter and perform suctioning because he felt regretful about his past relationship with his father and wanted to do his best during his father's last days. While this intention is admirable, I think invasive procedures like these need to be more carefully managed." (R3)

④ Peer support

Nurses highlighted that peer support and collaboration were essential for implementing Patient- and Family-Centered Care effectively. Assistance from colleagues, such as helping with tasks or responding to patient or family needs during busy situations, was described as a significant source of support. Nurses recognized that peer support extended beyond task-sharing, providing emotional support and increasing job satisfaction. They also emphasized the value of sharing experiences and insights among peers as a learning opportunity and a way to find solutions in challenging situations.

"I really rely on my colleagues. For example, if I'm busy dealing with a demanding patient or family, my coworkers might help by monitoring the vitals of another patient or stepping in to respond to the family. I think this kind of support is absolutely essential." (R1)

"Sharing experiences among peers has been incredibly helpful for me in many situations." (R5)
"I think it's great when nurses share their cases with each other. It's an excellent way to learn from one another." (R2)

5.2. Design

5.2.1. Development of a preliminary education program

Based on the integration of the literature review and interviews with nurses (Table 6), preliminary education program was developed, with specific details presented in Appendix 8.

Educational content related to professional knowledge and clinical skills, identified in both the literature review and interviews, was excluded from this program as it is already addressed through specialized programs tailored to the characteristics of each ICU.

The content on professional competencies focused on understanding PFCC and related knowledge, including the conceptual definition of PFCC, its core concepts, the effects of implementing PFCC in the ICU, and the facilitators and barriers to its adoption. The program also highlighted the importance of education in enhancing nursing competencies, boosting motivation, and providing case-based training to support practical application in clinical settings. However, the initial program draft did not include specific scenarios for group discussions and role-plays.

In self-awareness, the educational content identified from the literature review and interviews emphasized self-evaluation and reflection on one's actions. This included defining key concepts, engaging in self-exploration through guided questions, and sharing experiences of challenges encountered while practicing PFCC in clinical settings. Such activities were designed to foster self-reflection and personal growth.

Regarding clarity values and beliefs, both the literature and interviews with nurses highlighted the critical importance of recognizing how personal values and beliefs influence caregiving. To address this, the program incorporated content grounded in the PCN theory, emphasizing the PFCC approach, where families actively participate in patient care and respect patients' and families' values and beliefs. Activities were designed to encourage nurses to question, explore, and share how

their values and beliefs shape collaboration with patients and families in the ICU. Additionally, the program underscored the importance of aligning personal beliefs and values with clinical practice and identified the educational needs required to develop this competency.

In job commitment, it was observed that nurses often exhibit a strong passion for their job while grappling with role conflicts stemming from overlapping responsibilities. The importance of balancing these aspects was underscored through insights from the literature and interviews. Consequently, the program was designed to include relevant case studies and practical exercises, such as group discussions and role-plays, to help participants explore practical strategies for maintaining balance in clinical practice.

The first topic under interpersonal skills education focused on therapeutic communication. The literature review and interview findings highlighted challenges in communicating with ICU patients with limited vocal ability. To address these challenges, the program introduced the concept of therapeutic communication skills, supported by videos demonstrating therapeutic and nontherapeutic communication techniques. Quizzes were incorporated to reinforce learning. Additionally, the program covered the use of a clinical decision pathway to evaluate patient's cognitive and motor abilities, enabling the development of low-tech communication strategies tailored to the needs of patients with limited vocal ability.

Regarding communication competencies with families, the literature review and interviews revealed that nurses often feel constrained during family meetings and tend to underestimate the significance of their role. Therefore, the program introduced the facilitated sense-making (FSM) model by Davidson (2010), highlighting the critical roles of nurses as facilitators, information providers, builders of therapeutic relationships, and guides in decision-making during family meetings. The FSM model supports active communication by empowering nurses in these roles (Huang et al., 2022).

The program included literature on the differing perceptions between families and healthcare providers regarding critical information to enhance therapeutic communication strategies with families. Additionally, it provided educational content for families of unconscious patients during ICU admission, hospitalization, and transfer. Practical exercises, such as role-plays and discussions, were also incorporated to help nurses develop communication skills for effective clinical application.

Empathy, satisfaction, and emotional intelligence were crucial factors influencing PFCC. Nurse interviews highlighted a significant demand for empathy competency training. To address this, the program clearly defined the concept of empathy to facilitate learners' understanding and applied Barrett-Lennard's (1981) cyclical empathy model, which is widely used in training nurses and nursing students. This model encompasses empathy's cognitive, emotional, and expressive components and explores how these elements interrelate. Educational content included practical exercises such as case-based group discussions and role-plays, complemented by reflective journaling to encourage participants to assess and improve their actions.

The program incorporated content based on the literature review and interviews to strengthen collaboration competencies with patients and families. It emphasizes timely communication of treatment plans and goals while identifying patient and family preferences to involve them actively in care decisions. The concept of shared decision making (SDM) was presented as a central process of collaboration, along with techniques for conveying information using effectively using the BRAN (benefits, risks, alternatives, nothing) framework. Additionally, decision aids were introduced as tools to support patient and family decision-making. Participants engaged with educational videos, case-based role-plays, and reflective journaling to enhance understanding and practical application.

The literature highlights the importance of fostering a supportive organizational culture through training for nurses and nurse managers in the care environment. However, this program was specifically designed for nurses, and training for nurse managers was omitted. Interviews revealed

that nurses believed PFCC could be more effectively implemented through peer support, a perspective incorporated into the program draft.

Additionally, interviews with nurses confirmed that managing the physical environment in the ICU and adjusting it to meet the preferences of conscious patients was already a common practice. However, specific educational needs in this area were not identified. In contrast, the literature underscores the significance of nurses' competencies in managing physical factors such as noise and lighting in the ICU. It emphasizes that PFCC's key attributes are based on design, structure, and privacy. Based on these findings, the program was updated to include content to enhance nurses' ability to assess and adjust the physical environment effectively.

Table 6. Integration of research results

Domain	Sub-domain	Contents		Literature review	Interview
Prerequisites	Professional competency	• Expertise in nursing knowledge and skills		√	√
		• Knowledge and Understanding of PFCC		√	√
		• Motivation for implementing PFCC		√	
		• Integration in practice		√	√
	Knowing self	• Understanding oneself (emotions, attitudes, capabilities)		√	√
		• Reflecting on one's own actions		√	√
	Clarity of values and beliefs	• Recognizing the impact of one's beliefs and values on care			√
		• Ability to harmonize personal values and beliefs in clinical settings		√	√
	Commitment to the job	• Maintaining balance between passion for the job (desire to perform PFCC) and pressures from other roles		√	√
		• Support at the organizational level (work environment)			√
	Interpersonal skills	Communication	• Communicating with patients unable to vocalize	√	√
			• Awareness of one's role when communicating with families	√	√
			• Competence in maintaining therapeutic relationships with families through effective communication	√	√
		Empathy	• Understanding empathy	√	√
			• Compassion satisfaction & emotional intelligence competencies	√	
			• Ability to express empathy	√	√
		Collaboration	• Skilled communication techniques, including information provision	√	√
			• Promoting family involvement (in care and decision-making)	√	√
			• Competence in facilitating shared decision-making	√	√

Care environment	Physical environment	• Management of ICU structure, facilities, and environment	√	√
	Supportive organizational system	• Prepared and qualified nurse managers	√	
		• Support from colleagues	√	√
		• ICU visitation policies	√	

5.2.2. The first expert validation

The preliminary education program underwent the first round of expert validation, during which modifications, supplements, and deletions were made based on the results (Appendix 9). The Content Validity Index (CVI) was calculated for each item, with all items achieving a score of 0.8 or higher.

The key revisions are as follows: In the section on professional competencies, expert feedback highlighted the need for clarity on the concepts of PFCC and PCC. To address this, definitions of both concepts were provided, accompanied by an explanation that PCC and PFCC share the same philosophical foundation when viewed from the perspective of considering patients within a family system. Moreover, it was emphasized that in critical care settings, patients are often regarded as part of the family system, with families frequently making decisions on their behalf. Therefore, care should encompass both the patient and the family. For this reason, PFCC is sometimes regarded as an inclusive concept within PCC, and the term “patient- and family-centered care (PFCC)” is preferred over PCC (Mitchell et al., 2021; Kang et al., 2022).

Additionally, recognizing that nurses may not be familiar with PFCC, a brainstorming activity was added at the beginning of the training, prompting participants to reflect on the question, “What does PFCC mean to me?” Based on feedback suggesting the need to include the impact of PFCC implementation in the ICU not only on patients, families, and healthcare providers but also on healthcare resources, content on this aspect was added. Furthermore, the necessity of education for enhancing nurses' competencies was deleted, reflecting the opinion that it can be sufficiently addressed in the previously discussed content. Finally, based on expert feedback, new content was added to highlight the significance of the family’s role in the ICU and to explore the ICU experience from the family’s perspective.

An activity was added to classify facilitators and barriers related to the implementation of PFCC into personal and organizational levels based on expert opinions and further categorize these factors into modifiable and non-modifiable ones. Additionally, reflecting the opinion that presenting, reviewing, and discussing exemplary case would aid in understanding the concept of PFCC, this content was included.

In the self-awareness section, the scope of the questions was expanded to enable participants to perceive themselves more broadly as practitioners of PFCC, reflecting the suggestion to revise the existing questions, "What is my perception of patient and family participation?" and "What is my perception of collaboration with patients and families?" The revised questions include, "What kind of nurse am I?", "What are my strengths and weaknesses as a nurse?", and "What situations in clinical practice make it difficult for me to regulate my emotions?" Additionally, in the section on clarity beliefs and values and commitment to the job, an activity was added to reflect the necessity of exploring organizational resources for PFCC implementation. This activity involves introducing patient-centered organizational culture, utilizing tools to assess such culture, conducting evaluations, and sharing the strengths and weaknesses identified through these assessments.
Self-awareness, clarify of beliefs and values, and commitment to the job are interconnected concepts. Based on the suggestion that these elements should be taught together, the educational structure was designed to incorporate all these components into a single session.

In the interpersonal skills domain, the educational content on therapeutic communication with patients was revised to include scenarios that may arise in the ICU. These scenarios were supplemented with examples of appropriate therapeutic communication responses to enhance learners' understanding and facilitate skill acquisition, reflecting the suggestion to include educational elements focused on mastering therapeutic communication techniques. Additionally, the term "patients on ventilators" was revised to "patients unable to vocalize due to artificial airways,"

reflecting the recommendation for more precise terminology. To address the importance and outcomes of therapeutic communication with ICU patients, the content was further enhanced by utilizing a concept analysis study on therapeutic communication skills. This analysis provided antecedents, attributes, and consequences to support the development of these competencies. Furthermore, to improve communication with families, literature was added to address family members' experiences and challenges in communicating with healthcare providers, as well as their specific needs, based on suggestions to incorporate such topics.

To enhance communication with families in the ICU, suggestions were made to address effective communication with families of DNR or terminally ill patients. In response, scenarios were developed to include such situations, thereby improving the applicability of the training to real-world contexts. Additionally, based on recommendations to provide example conversation scripts for family information-sharing, the developed scenarios were supplemented with role-play exercises and group discussions for family information-sharing training. At the conclusion of these activities, example scripts were provided as a reference to further reinforce learning.

Regarding nurse collaboration with patients and families, suggestions emphasized the importance of enhancing the ability to facilitate and guide participation based on patient or family preferences. It was recommended to structure discussions around the information and care scope that can be provided at three stages: ICU admission, during hospitalization, and prior to transfer. Reflecting this suggestion, the program was revised to include a three-session module focused on providing information to ICU families, incorporating literature-based content to address relevant aspects at each stage.

5.2.3. The second expert validation

Based on the first expert validation results, the content was revised and refined. This process included incorporating detailed scenarios for role play and group discussions for each session. Subsequently, a second round of expert validation was conducted with the same panel of experts. The results of the second expert validation revealed that all items achieved a CVI of 0.8 or higher. Further revisions and enhancements were made to some instances and educational content based on expert feedback (Appendix 10).

The specific modifications are as follows: The experts observed that the distinction between the scenarios used in Session 1, focusing on professional competence, and Session 3, emphasizing practical communication with families, was unclear. Upon review, it was determined that although scenarios in both sessions addressed different situations, they were similarly structured around responding to family members of patients unexpectedly admitted to the ICU due to worsening vital signs.

To address this issue, Session 1 was redesigned to focus on implementing interventions aligned with the PFCC care process. This approach emphasized respecting family values and beliefs, encouraging participation, demonstrating empathetic presence, and facilitating shared decision-making. In contrast, Session 3 was restructured to prioritize training in effective information delivery. The session featured practical exercises to improve communication with the families of patients unexpectedly admitted to the ICU, clearly distinguishing its objectives from those of session 1.

Based on the feedback that the example of balancing commitment to the job with work pressure was not linked to professional commitment, the term “balancing commitment to one’s job and work pressure” was revised to “balancing the passion for practicing PFCC (the enthusiasm to meet patient needs as much as possible) with the pressure of fulfilling other responsibilities.” This example aligns with research findings that ICU nurses often experience job stress from balancing their dedication

to implementing PFCC with competing responsibilities. This challenge can reduce empathy satisfaction and negatively impact the delivery of PFCC.

Additionally, suggestions were incorporated to address content related to ICU noise stimuli perceived by patients within the care environment, specifically focusing on practical applications in the current domestic context. To achieve this, the literature on patients' perceptions of ICU noise and studies on the development and effectiveness of noise reduction interventions were included. Furthermore, each session was structured to include role-playing activities, followed by a self-reflection exercise. Questions were developed based on Mezirow's Transformative Learning Theory (Mezirow, 1994) to support this reflective process.

5.3. Development

5.3.1. Final preliminary education program

Based on the second round of expert validation results, the program was revised and refined, resulting in its final version. Detailed session plans and educational materials were completed (Appendix 11, 12). The specific content of the program developed for each session is outlined as follows:

1) Session 1

Session 1 focused on enhancing the professional competencies of nurses in implementing PFCC. The objectives were to increase knowledge, motivate practice, and facilitate the clinical application of PFCC. The session began with an overview of the program schedule and objectives, followed by a discussion where participants shared their motivations for joining this program and their expectations from the training. It continued with a brief introduction to the day's learning objectives and content.

In the primary phase, a brainstorming activity was conducted, prompting participants to discuss the question, "What does PFCC mean to me?" This was followed by an introduction to the conceptual definition of PFCC, commonly used terminologies, core attributes, and the PCN theoretical framework. As suggested by the theory, an overview of the competencies required for nurses to implement PFCC was also provided. A video was shown to deepen participants' understanding of patient-centered care, followed by a summary of the key points. The session discussed PFCC's effects and factors that facilitate or hinder its implementation. Participants were then given worksheets to identify factors that promote or obstruct PFCC in their practice. These factors were further classified into modifiable and non-modifiable categories.

In the next segment, content was presented based on research findings regarding the importance of family involvement in the ICU and the unmet needs of families. Participants were encouraged to reflect on their perceptions of the role of families in the ICU. Best practices relevant to PFCC were introduced, focusing on the care process elements derived from the PCN theoretical framework. Using the provided examples, participants were then given time to use worksheets to draft actionable interventions aligned with the care process elements. A group discussion followed, allowing participants to share their insights, after which a role-playing exercise was conducted using a different scenario to apply the concepts discussed. Finally, participants were asked to write reflections to encourage self-reflection and personal growth.

In the conclusion phase of Session 1, participants were guided to develop their action plans by setting goals and commitments to apply what they had learned in clinical practice. Key take-home messages were summarized, and a brief overview of the content for the next session was provided, effectively concluding the first session.

2) Session 2

Session 2 focused on self-awareness, clarity values and beliefs, and fostering commitment to the role of practitioner in PFCC. It was conducted as a synchronous virtual class. The objectives were to deepen participants' understanding of key concepts and enhance their self-awareness regarding their thoughts, emotions, behaviors, values, and beliefs as PFCC practitioners. Additionally, the session aimed to strengthen their ability to align personal beliefs and values with clinical practice and increase awareness of their organizational culture through self-assessment.

The session began with a review of the content covered in sessions 2 to 6, followed by an opportunity for participants to share their experiences implementing their action plans. This

discussion provided a platform for participants to openly reflect on challenges faced and successes achieved in their practice. Following this, the learning objectives and structure of the session were introduced, setting the stage for the educational activities.

The definitions of key concepts, such as self-awareness, clarity of beliefs and values, and commitment to the job, were explained, along with their relevance to the practice of PFCC. Participants then watched a video on the importance of self-awareness in PFCC, with the researcher summarizing its key points. Following this, participants engaged in self-reflection through prompts such as: “What kind of nurse am I?”, “What are my strengths and weaknesses as a nurse?”, “What situations in clinical practice make it difficult for me to regulate my emotions?”, and “What are my feelings and attitudes in those situations?”.

Examples specific to the ICU were presented to enhance participants’ ability to integrate their beliefs and values into clinical settings harmoniously. The program also included group discussions based on everyday scenarios, allowing participants to practice and apply these skills. Emphasis was placed on the impact of workload pressure and stress on empathy satisfaction, which can negatively influence PFCC. To address these challenges, a role-playing exercise was conducted using ICU scenarios to help participants develop strategies for maintaining balance in such situations. This was followed by a session for writing individual reflection journals.

To enhance participants’ ability to recognize and evaluate their organizational culture, content on the role and significance of organizational culture was incorporated into the program. Participants were allowed to assess their organizational culture using measurement tools to evaluate patient-centered organizational culture. Subsequently, the program facilitated discussions on strategies for improving organizational culture, guided by the subcategories in these tools.

At the end of each session, participants were encouraged to develop an action plan based on the knowledge gained. This was followed by a summary of the key takeaways (take-home messages).

Lastly, a brief overview of the content to be covered in the next session was provided to conclude the session.

3) Session 3

Session 3 focused on interpersonal skills (1) and was conducted in person. The learning objectives were to assess the cognitive and motor abilities of non-verbal patients accurately, select appropriate communication methods based on communication algorithms, and enhance the ability to engage in therapeutic communication with patients' families.

To ensure a clear understanding, the participants were initially provided with a conceptual definition of therapeutic communication supplemented by videos to deepen their comprehension. Subsequently, dialogue examples illustrating the elements of therapeutic communication were presented, followed by exercises to reinforce the material covered.

The session then introduced the "clinical decision pathway" for effective communication with non-verbal patients. Steps were categorized according to the patient's cognitive and motor abilities and corresponding communication strategies for each step. A simple picture board was also introduced as a practical tool for facilitating communication in clinical settings.

The FSM was applied to emphasize the critical roles of nurses in their interactions with patients' families. These roles include building caring relationships, engaging in therapeutic communication, promoting family participation in care, and facilitating shared decision-making. This session also reviewed studies that utilized FSM interventions developed explicitly for ICU nurses.

To enhance participants' understanding of the emotions and needs of patients' families, literature was presented on the experiences of families in the ICU and their interactions with healthcare providers. The session emphasized the gap between the information typically provided

by healthcare providers and the information families consider essential and wish to know. It highlighted the importance of nurses recognizing this discrepancy and creating opportunities for families to ask questions.

Building on this foundation, practical strategies for therapeutic communication with families, particularly for delivering information effectively, were introduced. Relevant literature was presented to outline the information that ICU nurses should provide at various stages: upon patient admission, during hospitalization, and at the time of transfer. A discussion on the specific content appropriate for each stage followed this.

Additionally, examples of using communication tools, such as pamphlets and the ICU introduction video, were provided, with opportunities for participants to view these resources together. To reinforce practical application, group discussions based on ICU case studies were conducted to explore effective methods of information sharing. Subsequently, participants engaged in role-playing exercises using different scenarios to practice nursing roles. Finally, they were encouraged to reflect on their performance by writing self-reflections on their experiences.

4) Session 4

Session 4 focused on interpersonal skills (2), specifically enhancing nurses' empathy abilities, and was conducted as a synchronous virtual class. The learning objectives were to understand the concept of empathy, the factors influencing it, and the relationship between empathy satisfaction and empathy fatigue. Additionally, the session aimed to develop strategies to enhance empathy skills and cultivate the ability to apply these skills effectively in clinical practice.

To more profound understanding, the session introduced the definition and components of empathy and the factors influencing nurses' empathy in the ICU. The relationship between empathy

satisfaction and fatigue, as well as the effects of empathy, were visually diagramed for clarity. The five stages of the cyclic empathy model were explained, focusing on how each stage aligns with the components of empathy.

The second stage of the cyclic empathy model, empathetic resonance (understanding the perspective of others), was practiced through role-playing exercises. These activities allowed participants to assume the roles of family members and share the emotions they experienced during the exercise. Additionally, the sub-concepts of the empathy measurement tool for nurses, such as communication skills (both verbal and non-verbal), sensitivity, and insight, were introduced, along with dialogue examples to demonstrate the practical expression of these elements.

Participants then watched a video related to empathy, followed by activities designed to practice empathy expression in clinical situations. For example, role-playing exercises focused on expressing sympathy to the families of terminally ill patients or the mother of a young girl facing leg amputation due to a car accident. After each role-playing session, participants were encouraged to complete reflection worksheets to promote self-reflection.

Further practice involved scenarios in which the family members of unconscious patients inquired about the patient's recovery. Participants practiced providing appropriate explanations and expressing empathy. These exercises were followed by group discussions to explore practical applications in clinical work. Scripts with examples of appropriate responses were provided after each case exercise to reinforce learning.

5) Session 5

Session 5 focused on interpersonal skills (3), specifically collaboration with patients and their families, and was conducted as a synchronous virtual class. The learning objectives included

understanding the concepts of collaboration, family participation, and SDM and enhancing the ability to apply these skills in clinical practice. Special emphasis was placed on developing practical skills to promote family participation and effectively implement shared decision-making.

The session began with an introduction to the conceptual definition of collaboration and its relationship to PFCC, shared decision-making, and family participation. This was followed by a discussion on the meaning and significance of family participation in PFCC and various approaches to involving families in patient care within the ICU. Additionally, relevant literature highlighting the effectiveness of family participation interventions was presented to provide evidence-based insights.

Next, the concept and significance of SDM were introduced, along with communication skills and strategies to enhance SDM. The session also included an explanation of decision aids designed to support family members in making decisions in the ICU, supplemented with real-life examples of their application and a discussion on their effectiveness.

To reinforce practical application, a role-playing exercise was planned where participants simulated the role of a nurse assisting a family facing a critical decision, such as organ donation for a patient with a low chance of recovery after a sudden accident. Participants were provided guidance and examples to address challenges during the role-play, ensuring they could effectively apply these skills in real-life scenarios. Following the exercise, participants were encouraged to self-reflect by writing individual reflection journals to review their actions and experiences.

In the group discussion, participants watched videos illustrating the decision-making process of a male patient diagnosed with colon cancer, spanning from pre-surgery to post-surgery. The first video depicted a scenario where SDM was poorly executed, while the second presented the same case with SDM effectively implemented.

By comparing these two videos, participants could analyze the key components of an effective SDM process. This exercise provided an opportunity to enhance their understanding of the

importance of SDM and to explore practical strategies for applying it in clinical settings.

6) Session 6

Based on the PCN theoretical framework, the final session 6 was designed as an in-person lecture focused on the care environment, specifically the physical environment and peer support. The learning objectives for this session were to understand the importance of managing the physical environment in the ICU and to enhance participants' ability to assess and control it effectively. Additionally, the session emphasized improving participants' skills in providing informational, emotional, and evaluative support to peers.

The session began with an introduction to the subdomains of the care environment within the PCN theoretical framework, highlighting the severity of sleep disturbances among ICU patients caused by noise. Participants were presented with literature on how patients perceive ICU noise and its impact on their physical and psychological change, then discussed the importance of managing the physical environment and strategies. The session also included examples of patient-centered design, supported by visual aids to enhance participants' understanding. Furthermore, case studies were presented on developing and applying interventions to reduce noise in the ICU, along with practical strategies for implementation. This approach aimed to equip participants with concrete ideas and guidance for improving the ICU environment.

The session covered the concept, key attributes, and positive outcomes of adequate peer support. A qualitative study analyzing communication experiences among ICU nurses was discussed to explore how nurses perceive communication with their peers. Participants were then provided with an open forum to share their experiences, facilitating discussions on the importance of peer support and identifying areas for improvement.

To enhance practical application, a scenario was designed in which a new nurse independently assumed patient care responsibilities in the ICU for the first time. A role-playing activity incorporated emotional, informational, and evaluative support. Following the role-play, participants were encouraged to write individual reflection journals, providing an opportunity for deeper introspection on their experiences and the lessons learned.

Finally, activity cards developed by the researcher were distributed to ensure continued application of the program's teachings in clinical practice. These cards were designed to reinforce the educational content and support its implementation in real-world settings.

5.3.2. Feasibility evaluation

Based on the revised program design following the second expert validation, a feasibility evaluation was conducted with 12 adult ICU nurses from September 10, 2024 to November.

1) General characteristics of participants

The characteristics of the participants are summarized as follows (Table 7). Among the 12 participants were three males and nine females, with median age of 29 years. Regarding their educational background, 10 participants held a bachelor's degree, while two were pursuing a master's degree. In terms of ICU work experience, 5 participants had 1 to 5 years of experience, while 7 participants had 5 to 10 years of experience. The participants included nurses from the surgical (7 nurses) and emergency ICU (5 nurses).

Table 7. General characteristics of participants (n = 12)

Characteristics	Categories	N (%)	Median (min-max)
Gender	Male	3 (25%)	
	Female	9 (75%)	
Age (years)			29 (26 - 38)
	≥25 - <30	8 (66.7%)	
	≥30	4 (33.3%)	
Marital status	Single	10 (83.3%)	
	Married	2 (16.7%)	
Education	≥ BSN	10 (83.3%)	
	≥ MSN	2 (16.7%)	
	≥ PhD	0	
ICU work experience (years)			5Y 6M (1Y 4M - 9Y)
	≥1 - <5	5 (41.7%)	
	≥5 - <10	7 (58.3%)	
ICU type	SICU	7 (58.3 %)	
	EICU	5 (41.7 %)	

Note. BSN=Bachelor of Science in Nursing; MSN= Master of Science in Nursing; PhD= Doctor of Philosophy; Y=Year; M=Month; SICU=Surgical intensive care unit; EICU=Emergency intensive care unit;

2) implementation of education program.

This program comprised six sessions, three conducted face-to-face and three delivered as synchronous virtual sessions. The face-to-face sessions were held in rented study rooms to ensure all groups could learn in an undisturbed and consistent environment. For the virtual sessions, most participants joined from their homes or cafes; however, some attended from car during transit or in noisy environments. One participant forgot to bring laptop chargers, resulting in disconnections before the session concluded.

The education program was implemented over the first four weeks following participant recruitment, initially targeting seven nurses from a surgical ICU, who were divided into two groups. After completing the first phase, five nurses from an emergency ICU participated in the program. Although the initial plan was to organize sessions with five participants per group, two out of the six sessions were conducted in two separate groups due to scheduling issues with participants' work schedules. The number of participants in each session ranged from two to five, with an average duration of 70 to 75 minutes.

3) Comparison of the pre- and post-education scores

(1) Patient-Centered Communication Skill, Empathy, Peer support, and PCCN level

The differences in scores before and after the training for each variable were analyzed among the 12 participants. The results indicated that the scores for patient-centered communication skill, empathy, peer support, and PCCN skills all improved following the training (Table 8).

Table 8. Each variable in pre- and post-education (n = 12)

Variables	Pre-education	Post-education
	Median (IQR)	
PCCS	42.5 (6.50)	50.0 (6.75)
Empathy skill	4.0 (0.00)	5.0 (1.00)
Peer-support skill	80.5 (12.75)	97.0 (9.00)
PCCN	57.0 (17.25)	63.5 (11.75)

Note. PCCS=Patient-centered communication skill; PCCN=Person-centered critical care nursing; IQR=Interquartile range.

5) Participant feedback

This study assessed satisfaction with PFCC education program after completing the six sessions for each group. Additionally, feedback was collected through 20–30 minutes group interviews, focusing on the following questions: “What were the positive aspects of your experience during the training?” and “What areas need improvement or further enhancement?” Based on the feedback, the training program’s positive aspects and areas for improvement are summarized in Table 9, with detailed interview transcripts provided in Appendix 13.

Table 9. Helpful aspects of the PFCC education program

The helpful aspects of the program	
Acquisition of evidence-based knowledge and information	• The program's use of various literature and theories enhanced its effectiveness. • Learned new concepts that had not been considered before. • Gained insight into the importance of recognizing one's own emotions. • Valuable opportunity to understand and learn specific terms and concepts related to patient- and family-centered care (PFCC). • The education expanded the awareness of unfamiliar information, providing valuable insights and confirming the impact of family-centered interventions on unconscious patients. • Offering exposure to advanced practices and highlighting future directions despite challenges in immediate clinical application.
Allow self-assessment time	• An opportunity for self-evaluation of my ability to express empathy. • Encouraged reflection on my previously passive attitude.
Realistic case studies	• The highly relatable case study • Engaging with relatable scenarios increased immersion in the training
Motivation for PFCC implementation and increased practice	• Realized the importance of family participation, leading to its application in clinical settings • Developed greater interest in families and focused more on family-centered care. • Concepts from the training frequently came to mind during work, boosting confidence in applying them. • After the training, I became more attentive to the patient's words.
Benefits of blended learning	• Good experience with the strengths of both in-person and synchronous virtual class • More engaged than expected, even during the virtual classes

Table 10. Areas for improvement

The areas for improvement in the program	
Time allocation	• The time provided was somewhat insufficient to achieve all the learning objectives.
	• Challenging to immediately apply what was learned through role- playing and group discussions. • Not enough time to practice applying the concepts to real-life scenarios.
Challenges in applying SDM	• Experienced difficulties in implementing Shared Decision Making (SDM) through collaborative efforts.
Suggestions for program improvement	
Dividing into levels	• Divide the training into stages, such as Basic and Advanced.
Adjusting the balance between didactic and practice session	• 1 hour 30 minutes with 40 minutes of theory, a 10-minute break, followed by 30 minutes of role-play. • Separate the theory section and practical application time • Simplify the theoretical session by assigning pre-class preparation, and extend the time for practical application.

5.3.3. Finalization of the PFCC education program

A preliminary program was conducted with 12 adult ICU nurses who completed the six sessions. The educational content applied in the preliminary education program remained unchanged. However, adjustments were made to the program delivery: each session was extended from 70 to 90 minutes, with a 10-minute break added midway. Additionally, theoretical instruction was separated from practical application segments, providing ample time for role-playing and group discussions. Consequently, the final program was structured into six sessions delivered over four weeks. Sessions 1, 3, and 6 were conducted in person, while sessions 2, 4, and 5 were held synchronous virtual classes, each lasting 90 minutes, as shown in Table 11.

Table 11. PFCC education program for ICU nurses

Session	Topic	Contents	Detailed program	Method/ Duration
1	**Professional competency**	• Expertise in nursing knowledge and skills • Knowledge & understanding of PFCC • Motivation for implementing PFCC • Integration in practice	1. Knowledge and understanding of PFCC 1) Brainstorming: "What is the PFCC?" 2) Definition, key concepts of PFCC, Nursing competency in PFCC based on PCN (Person-centered nursing) theoretical framework 3) Watching related video 2. The effects, facilitating and barriers to perform PFCC 1) The aspect of effectiveness ① Patients, ② Families, ③ healthcare providers 2) Facilitators & Barriers: ① Individual, ② Organizational levels 3) What do I think are the facilitators and barriers? Categorize these factors as modifiable vs non-modifiable factor 3. The importance of the family's role in ICU, The needs of families, My perspective on the family's role and family participation 4. Presenting a Best Practice Example of PFCC Application in the ICU [Case]: The patient who admitted to the ICU through the emergency room due to a myocardial infarction, along with their family member (based on the care process of the PCN framework)	Lecture (PPT, Video) / 50min
			Break time	10min
			5. Practical Training for PFCC Implementation 1) Group Discussion Case 1: Mr. Kim (M/65) was diagnosed with lung cancer and underwent a right pneumonectomy. After receiving post-op care, he was transferred to a general ward. On the second day after his transfer, he suddenly developed a high fever of 39℃ and complained of shortness of breath. Despite receiving high-concentration oxygen, his condition did not improve, and he was urgently transferred back to the ICU. The assigned nurse performed an overall evaluation of the patient's condition. Endotracheal intubation was performed, and vasopressor administration was started. The patient's wife was then allowed to visit him for the first time. A. Patient's Wife (in a somewhat agitated tone): "How is my husband's condition? I don't understand what's suddenly happening. How long will he have to keep that tube in his mouth? He gets cold easily, and his hands and feet are freezing..." B. Nurse: Q: In this situation, how would you apply PFCC to the patient and family according to the care process elements in the PCN theoretical framework? 2) Role play & self-reflection Case 2: Ms. Lee (F/62) is receiving post-op care in the ICU after a liver transplant. Various medications are being administered through a central venous catheter, and she is receiving 5L of oxygen via a nasal cannula. Her level of consciousness (GCS) is 3/3/6, meaning she opens her eyes in response to being called and responds with confusion, asking "Huh? What?" when asked, "Are you 000?". When instructed by medical staff to "grip your hand," she complies, but her responses are inconsistent. She appears anxious. The nurse, assessing the situation as posing a potential threat to her safety, including the risk of self-removal of the lines, applied restraints to both arms. This led the patient to become more agitated and react strongly, repeatedly asking, "Where am I?", "Why am I here?", "I need to go home now. Can you get my shoes?", and "Please take these off," while continuing to shout. A. Patient: "Where am I?", "I need to go home now. Can you get my shoes?" "Call my family." B. Nurse: Q: How would you respond in this situation, ensuring the application of PFCC principles to address the patient's anxiety and confusion while ensuring her safety? 6. Set the action plan & Summary	Group discussion, Role-play &Self reflection /30min
			Total	90min

Table 11. PFCC education program for ICU nurses (Cont'd)

Session	Topic	Contents	Detailed program	Method, Duration
2	**Knowing self, Clarity of values and beliefs, Commitment to the job**	• Understanding oneself • Reflecting on one's own actions • Recognizing the impact of one's beliefs and values on caregiving. • Ability to harmonize personal values and beliefs in clinical settings	1. Understanding the concepts of knowing self, clarity of values and beliefs, commitment to the job 1) Definition, importance of each concept in PFCC 2) Watching related videos 2. Exploration of oneself as a PFCC practitioner 1) What kind of nurse am I? What are my strengths and weaknesses as a nurse? (Myself as a nurse) 2) What situations in clinical practice make it difficult for me to regulate my emotions? How do I behave in those situations? (Awareness of my emotions and attitude) 3. Competency to harmoniously integrate 2) Group discussion based on actual experiences of nurses Case 1**:** During the COVID-19 pandemic, visits to the ICU have been completely suspended. \ Only the families of patients on the verge of death are allowed to visit. Nurse A, who holds the value that rules must be strictly followed and applied consistently to everyone, faces a situation where a patient's guardian has brought a pastor, requesting a prayer for the patient. The patient, Mr. Cho (M/72), is currently in a brain-dead state due to a cerebral vascular attack (CVA) and has a Glasgow Coma Scale (GCS) score of E1M1 (no response to external stimuli and does not open his eyes), while receiving life-sustaining treatment via a ventilator. The patient is known to be a devout Christian, and the guardian expresses the need for religious comfort, stating they never know when the final moment will come. Nurse A is now struggling with how to handle this request. Q: If you were the nurse in charge, what decision would you make? Have you ever experienced a similar situation? If so, could you share your experience?	Lecture & Group discussion/ 40min
			Break time	10mn
		• Maintaining balance between passion for the job (desire to perform PFCC) and pressures from other roles	4. Role-play & Self-reflection Case 2**:** Ms. Kim (F/67) is receiving ventilator care in the ICU due to aggravated pneumonia. Her level of consciousness allows her to open her eyes spontaneously and follow medical staff instructions such as "raise your hand" and "grasp my hand," scoring 4/E/6 on the Glasgow Coma Scale (GCS). Both of her arms are restrained, and her motor power in all four limbs is graded at III (able to lift against gravity). She continuously gestures by hitting the side rails and making a motion with her mouth, requesting relief from her thirst. Nurse Yang, who has just started her day shift, has recently completed a bed bath for the patient and, additional orders are being processed based on the patient's morning lab results, leaving her busy. After quenching the patient's thirst, the nurse approaches the patient again as she continues to make eye contact and repeat the request. A. Patient: (Hitting the side rails with her restrained arms and gesturing by opening her mouth.) B. Nurse:	Role-play/ 15min
		• Organizational support	5. The ability to recognize and evaluate whether the organization I belong to is suitable for implementing PFCC 1) Understanding patient-centered organizational culture (awareness): - The role and importance of organizational culture 2) Evaluating one's organization using an organizational culture assessment tool: - Utilize the Patient-Centered Nursing Culture Scale (PCNCS) 3) Group discussion on the strengths, weaknesses, and areas for improvement in the organization 6. Set the action plan & Summary	Lecture &Group discussion/ 25min
			Total	90min

Table 11. PFCC education program for ICU nurses (Cont'd)

Session	Topic	Contents	Detailed program	Method, Duration
3	**Interpersonal Skill (1):** Communication with patients and families	• Understanding of therapeutic communication • Communication with patients unable to vocalize • Awareness of one's role when communicating with families • Competence in maintaining therapeutic relationships with families through effective communication	1. Understanding therapeutic communication skills. 1) Definitions, preconditions, attributes, and outcomes. 2) Therapeutic vs. non-therapeutic communication (watching videos) 3) Types of therapeutic communication & provide appropriate dialogue examples for each type of therapeutic communication & quiz time. 2. Enhancing communication skills with patients on ventilators. 1) Using a clinical decision pathway to assess cognitive and motor abilities of patients. 2) Using 'low-tech' communication strategies based on patient capabilities. 3. Nurses' awareness of their role in communication with families 1) Awareness of the nurse's role in communication with families: Participants share their awareness of their role, communication style, and related literature is introduced. 2) Increasing awareness and motivation regarding the important role of nurses: Introduction of the Facilitated Sense-Making Model (FSM) 4. Understanding families 1) Introduction of the family's experience and challenges in communicating with healthcare providers 2) Discuss the characteristics of information provision in the ICU and the difference between the information provided by healthcare providers and the information desired by families, based on literature 5. Information provision strategies for managing uncertainty in the ICU 1) Practical strategies for providing information in the ICU: (1) Develop strategies based on the Facilitated Sense-Making (FSM) model, (2) introduce ASK-TELL-ASK technique, (3) present evidence-based practices through literature. 2) Utilize communication tools for information provision: - Use pamphlets and share videos which gives information about the ICU environment.	Lecture/ 50min
			Break time	10min
			6. Practical exercises in communication with families in the ICU through case studies 1) Group discussion Case 1: A situation where a family member visits ICU for the first time after an unplanned admission. Ms. Jeong (F/54) was diagnosed with ovarian cancer and was receiving care in the general ward after a total hysterectomy (TAH). Less than a day after surgery, her blood pressure dropped to 80/50, and despite full IV fluid administration, it remained low. She also developed a high fever of 39℃, so she was transferred to the ICU at 11 p.m. for closer observation. Q: What information should the ICU nurse provide to the patient's family during the first visit, and how can the nurse effectively address the family's concerns? -> After group discussion, a sample dialogue script will be provided 2) Role-play & Self-reflection Case 2: A 35-year-old male patient, Mr. Lee, is in the ICU with multiple injuries from a car accident. He is currently sedated and on a ventilator. The patient's condition is critical, and vasopressors are being administered. The family is extremely worried. Nurse Jeong needs to provide appropriate information to the family but is unsure about what information to share and how much detail to provide. A. Daughter: "How is my father doing now? It's shocking because he was fine before this accident. Yesterday, they said he was on medication to raise his blood pressure." B. Nurse: 7. Set the action & Summary	Group discussion, Role-play & Self-reflection/ 30min
			Total	90min

Table 11. PFCC education program for ICU nurses (Cont'd)

Session	Topic	Contents	Detailed program	Method, Duration
4	**Interpersonal skill (2):** Empathy	• Understanding Empathy	1. Understanding Empathy 1) The concept of empathy, compassion satisfaction, and compassion fatigue (1) Understanding the concept: - Components (cognitive, emotional, and expressive elements) (2) Factors influencing ICU nurses' empathy, the relationship between compassion satisfaction and compassion fatigue, and the effects of empathy 2. The cyclic empathy model (5 stages)	Lecture & Role play/ 50min
		• Ability to express Empathy	3. Strategies for enhancing empathy skills (develop strategies based on the components of empathy) 1) Cognitive and emotional elements: Putting oneself in the shoes of the patient's family (role-play & self-reflection) & expressing the emotions felt when in the family's position Case 1. Put yourself in the position of the family member of Mr. Kim (M/68), a victim of a drunk driving accident who is unconscious and lying in the ICU. A. Family member: (Entering the ICU and looking around)"Excuse me... Can I find out condition of the patient? Who is the nurse in charge?" (The family member hesitates, watching the nurses busily moving around, unsure of whom to approach.) (Cautiously) "Excuse me, could I know the condition of the patient?" B. Nurse in charge: (Typing on the keyboard in front of the patient's computer and glancing at the approaching family member) "Yes? What is your relation to the patient?" A. Family member: "I'm the daughter of Mr. [Name]. I'm just wondering about his condition." B. Nurse in charge: (Looking at the computer screen) "It's the same as yesterday. The medication is being administered, and he's resting now." (Walks away) (The family member feels anxious and frustrated as they watch the nurse sit at the computer and engage in a cheerful conversation with another nurse. Until the end of the visiting time, the family member does not get another chance to speak with the nurse.)	
			2) Empathy expressive elements – Empathy measurement tool (a tool developed by Lee & Seomun, 2016) (1) Communication (verbal and non-verbal), (2) Sensitivity (receptive techniques), (3) Insight: Understanding each subcategory and providing examples of specific expressions of empathy 3) Video viewing	
			Break time	10min
			4. Empathy expression training through case studies (Based on specific cases and experiences where nurses find it challenging to empathize, followed by role play & debriefing) Case 1: Expressing empathy to the family of a terminally ill patient Mr. Park (M/55) is in his final moments, and all life-sustaining treatments have been stopped. The family is having their last visit with him. Mr. Park's wife is standing beside his bed, crying continuously. She says the following to the nurse: A. Family member (wife): "I just don't know how to let my husband go... I really don't know what to do..." B. Nurse: Case 2: Facing the mother of a 20-year-old daughter who is paralyzed from the waist down and receiving treatment in the ICU after a car accident. Ms. Kim (F/23) suffered a car accident that left her paralyzed from the waist down. She can barely move her arms. Her legs are bandaged after several surgeries, and she is on a ventilator, struggling to breathe. She is in mild sedation for pain control. A. Patient's mother: (Crying for a long time) "How is my daughter doing today?" B. Nurse: 5. Action plan & Summary	Case study & Self-reflection/ 30min
			Total time	90min

Table 11. PFCC education program for ICU nurses (Cont'd)

Session	Topic	Contents	Detailed program	Method, Duration
5	**Interpersonal Skills (3):** Collaboration with patients & families	• Information sharing, • Promotion of family participation (care, decision-making) • Competence in facilitating SDM	1. Understanding collaboration in PFCC 1) Conceptual understanding of collaboration 2) The relationship between family participation, collaboration, and shared decision-making 2. The ability to promote, guide, and monitor family participation according to the preferences of patients and families 1) Concept of participation, 2) Types of family participation in the care of patients 3) Interventions and effects of family participation in the ICU (Physical and non-physical) 3. Understanding the concept and process of Shared Decision-Making (SDM) for PFCC implementation and strategies for enhancing competency 1) Definition and key concepts of SDM 2) Situations where SDM should be applied and decision-making for SDM 3) Communication strategies for nurses to facilitate SDM 4) Decision aids to support family decision-making: Introduce literature-based case studies were decision aids were developed to support decision-making	Lecture /40min
			Break time	10min
			4. Role-play & Self-reflection Case 1: A young man in his 20s has fallen into a brain-dead state after a bicycle accident. His older sister and brother never had a conversation with him about his thoughts on life-sustaining treatment when he was healthy, and now they feel lost about how to make decisions regarding his future care. A. Patient's sister: "The doctor said that there's little chance my brother will wake up, and they also mentioned organ donation, but we are at a loss about what to decide in sudden situation." B. Nurse: Case 2: Introduction of a case through video (Shared Decision-Making): The case of Mr. Kim (M/72), who was diagnosed with colon cancer and underwent a total colectomy following the recommendation of his medical team. #1. After watching the inappropriate version of the video, pause it and allow participants 5-10 minutes for discussion. Discuss what interventions, information sharing, and efforts were necessary during the series of processes the patient experienced in order to carry out Shared Decision-Making with the patient and family. #2. Then, watch the appropriate version of the video that follows. 5. Action plan & Summary	Role play & self-reflection/ 40min
			Total time	90min

Table 11. PFCC education program for ICU nurses (Cont'd)

Session	Topic	Contents	Detailed program	Method, Duration
6	**Physical environment**	• Management of ICU structure, facilities, and environment	1. The care environment in Person-Centered Nursing (PCN) theory 1) Understanding the care environment 2) The physical environment of the ICU (1) Noise in the ICU (2) Patients' perception of noise in the ICU 2. Physical environment management 1) Assessment and adjustment of the physical environment in PFCC 2) Strategies for creating a patient-centered environment in the ICU and introducing cases of patient-centered design (presented with photos) 3) Introduction of interventions developed to reduce noise in the ICU and the effects of application	Lecture/ 50min
	Supportive organization support	• Peer support	3. Effective relationships among staff (focusing on peer support) 1) The concept, attributes, and outcomes of peer support 2) The positive impact of peer support and its relationship with PFCC implementation 3) Introduction of literature on communication experiences among ICU nurses (qualitative study on communication experiences among ICU nurses) & sharing personal experiences (experiences of receiving peer support, communication experiences, etc.)	
			Break time	10min
			4. Role play & self-reflection Case 1: Nurse Joo, with 10 years of experience in the adult ICU, has noticed that there have been numerous near-miss errors lately due to the large number of new nurses. After starting her evening shift and checking her assignment, she realized that the day shift nurse she is taking over from is Nurse Jeong, a newly independent nurse working her first solo shift today. After the overall handover was completed, Nurse Joo began receiving an individual handover from Nurse Jeong, who appeared visibly anxious and tense. A. New RN Jeong: (In a trembling voice, with an unorganized environment) "I'll start the handover… um" B. Experienced RN Joo: 5. Set the action plan & Summary	Role play & Self-reflection /30min
			Total	90min

6. Discussion

This study aimed to develop a program to enhance the PFCC competencies of ICU nurses based on McCormack and McCance's (2006) PCN theory. This chapter discusses the findings of the study.

6.1. Development of the PFCC education program

A systematic education program aimed at strengthening the PFCC competencies of adult ICU nurses was developed using the ADDIE (analysis, design, development, implementation, evaluation) instructional design model, encompassing the stages of analysis, design, and development. This program was grounded in the PCN theoretical framework, focusing on systematically and comprehensively addressing gaps and deficiencies in existing programs to enhance the essential competencies required for delivering PFCC.

From a content perspective, this program emphasizes enhancing ICU nurses' professional competencies, focusing on knowledge and skills directly related to PFCC. It addresses critical barriers to implementing PFCC, such as a lack of knowledge, awareness, and motivation (Lloyd et al., 2018). While professional competencies in critical care generally include medical knowledge and skills related to patient conditions, diagnostics, and treatments, these areas were excluded from this program as they are already covered in tailored ICU-specific training. Instead, the program concentrated on highlighting the benefits of PFCC based on evidence, incorporating relevant research, and emphasizing the critical role of nurses in PFCC as outlined by the PCN theory.

To enhance nurses' self-awareness, clarity their values and beliefs, and strengthen their commitment to the job by focusing on their ability to identify personal strengths and weaknesses and effectively manage situations involving value conflicts. To achieve these goals, opportunities

for self-reflection were provided through guided questions, encouraging participants to explore and reflect on their roles as nurses. Furthermore, a group discussion based on a case scenario where a family requested religious rituals involving pastors for a patient during the COVID-19 pandemic, a period when visitation was restricted to family members only. Strengthening these competencies helps nurses recognize themselves as PFCC practitioners and perform nursing practices grounded in clear values and beliefs. This is particularly important in complex environments like ICU, where ethical dilemmas are common, as it fosters moral sensitivity and supports sound ethical decision-making (Yim & Ahn, 2023).

Additionally, a case derived from nurse interviews was included in this study, involving a mechanically ventilated patient who repeatedly hit the bed rails while expressing thirst in this study. Nurses often experience compassion fatigue when dealing with patients who continuously make demands despite their efforts to meet their needs. Developing strategies through team activities allowed nurses effectively address practical challenges. By doing so, this program aimed to strengthen nurses' ability to maintain their commitment to PFCC while balancing various roles, ultimately reducing compassion fatigue and promoting the implementation of PFCC (Jakimowicz & Lewis, 2017). Existing programs have been found to inadequately address these competencies (Kim et al., 2011; Sangi et al., 2023). Therefore, the significance of this program lies in its use of specific and practical scenarios to differentiate and enhance the educational content, offering a more targeted and meaningful learning experience.

In this program, the development of interpersonal competencies was emphasized by incorporating educational content aimed at enhancing empathy and collaboration skills, along with the importance of communication skills. Current education programs designed to improve interpersonal competencies primarily focus on strengthening communication skills (Kim et al., 2011; Beierwaltes et al., 2020). However, nurses’ interpersonal competencies are critical for successfully

implementing PFCC, encompassing communication, expressing empathy, and fostering collaboration with patients and families (McCormack et al., 2021).

This program addressed empathy competencies by focusing not only expressive elements, which have been the primary focus of previous studies (Eggenberger et al., 2016; Sangi et al., 2023) but also on cognitive and emotional components. Research suggests that integrating all three elements—expressive, cognitive, and emotional—is more effective in enhancing empathy competencies (Mirzaei Maghsud et al., 2020; Bas-Sarmiento et al., 2020). Jeong and Kim's (2019) findings, which demonstrated the effectiveness of an empathy education program for nursing students that integrated these components. Additionally, the program included exemplary expressions and specific phrases to help nurses effectively express empathy and provided practical opportunities for skill development through scenarios reflecting challenging clinical situations, such as expressing empathy to the family of a patient nearing the end-of-life or communicating with the family of a brain-dead patient facing uncertain prognosis. This approach was designed to equip nurses with the skills to demonstrate empathy even under difficult circumstances.

This program aimed to enhance nurses' collaboration competencies by highlighting their critical role in family meetings. Using the FSM model, it provided strategies such as involving families in ICU care and reducing barriers to collaboration. Additionally, communication strategies were introduced, including considerations for information-sharing and specific dialogue scripts based on research, to facilitate the SDM process with families. The training emphasized addressing real-world situations, particularly those involving conversations with the families of terminally ill patients, which many nurses find challenging. Furthermore, nurses play a crucial role as patient advocates in the SDM (Shared Decision-Making) process. To fulfill this role effectively, it is essential for nurses to provide timely and reliable information to patients and their families, identify their concerns clearly, and address them appropriately. Developing a positive attitude toward SDM

and fostering a willingness to implement it are critical, and these efforts can be facilitated through participation in educational programs. However, feedback on difficulties encountered in the actual application of SDM highlighted that SDM based on collaboration with patients and families requires individual nursing competencies and effective teamwork with physicians at all stages, from providing information to decision-making (Adugbire et al., 2024). To address this, training and education aimed at the effective practice of SDM, including collaboration with physicians, are essential.

In the domain of the care environment, focusing on enhancing comfort is one of the PFCC attributes identified in a previous study (Kang et al., 2018). The study addressed the impact of noise-induced sleep deprivation and patients' perceptions of noise in the ICU while providing specific strategies for evaluating and adjusting the physical environment. These strategies, primarily recognized as interventions that nurses can actively and independently implement, underscore the critical role of nursing in managing the care environment (Joo & Jang, 2022). Previous studies have often overlooked enhancing competencies related to the care environment, concentrating instead on educating nurse managers to develop supportive organizational systems (Sangi et al., 2023). In contrast, this program highlights the importance of managing the physical environment by incorporating actionable strategies for controlling noise and lighting, addressing gaps in existing educational programs. This approach offers a comprehensive framework for improving practical competencies in managing the care environment.

Each session incorporated case-based team learning and role-play, enabling participants to apply their knowledge in practical scenarios. Case-based team learning and role-play enhanced interpersonal skills by guiding participants through various challenges (Ahmady et al., 2021). Since PFCC is fundamentally grounded in relationship-building (Jeppesen et al., 2024), these approaches are expected to enhance PFCC practice and facilitate the translation of theoretical knowledge into

practical care settings (Yeung et al., 2023; Alberti et al., 2021). Additionally, this program addressed the lack of structured reflective journaling in nursing education (Kim, 2023; Yoo, 2020; Eggenberger et al., 2016) by introducing a systematic process based on Mezirow's Transformative Learning Theory (Mezirow, 1994), helping participants critically evaluate actions, apply learning to practice, and develop actionable plans (Grech, 2021).

The final program developed through this study consisted of six sessions, combining three face-to-face sessions with three synchronous virtual sessions. A blended learning approach enhanced applicability for nurses working rotating shifts. This approach has been reported to be cost-effective in the long term (Liu et al., 2020) and to achieve educational outcomes comparable to traditional face-to-face training (Du et al., 2022). However, the flexible nature of online learning, which minimizes time and space constraints, may result in variations in educational outcomes depending on learners' motivation and engagement. Additionally, distractions in the surrounding environment can make it challenging for learners to maintain focus (Han, 2021). To address these challenges, the program was designed to actively engage participants by providing frequent opportunities to share their experiences, fostering interaction and enhancing engagement. Additionally, participants were also given opportunities during didactic sessions to take turns reading aloud the content included in the educational materials or to role-play the sample dialogue scripts provided as examples. Theses active interaction between educators and learners, combined with proactive facilitation by educators, was emphasized as essential for the effective implementation of virtual session (Donkin et al., 2023).

6.2. Feasibility evaluation of the preliminary education program

In this study, the preliminary education program was implemented for adult ICU nurses, and its feasibility was evaluated by comparing pre- and post-scores in patient-centered communication skills, empathy, peer support, and the level of patient-centered critical care practice.

The results revealed that scores for patient-centered communication skills increased after the program. Although studies measuring patient-centered communication competencies following the implementation of PFCC programs for nurses are limited and utilize different measurement tools, making direct comparisons difficult, the findings are consistent with those of Kim et al. (2011). This study reported improvements in therapeutic alliance performance, including communication components, after providing 4 hours of theoretical education and practical training for ICU nurses. Additionally, participant feedback highlighted an increased awareness of differences in information priorities between healthcare providers and families. As a result, participants reported that the program encouraged behavioral changes, such as giving families more opportunities to ask questions freely. These findings emphasize the program's significance in fostering awareness and behavioral change through education. The program also introduced the ASK-TELL-ASK technique as an effective communication strategy to bridge the gap between knowledge and clinical application. Participant feedback indicated that this approach was straightforward and practical for clinical settings, supporting the program's feasibility for broader application.

An improvement in nurses' empathy skills was observed following the program. This result aligns with the findings of Kim (2023), who reported enhanced empathy levels in third-year nursing students after a two-week PFCC education program. Participants engaged in case-based group discussions practiced role-playing and were provided with example sentences for expressing empathy to facilitate real-world application. This approach mirrors prior research (Yoon, 2022;

Choo, 2023), which highlighted the role of case-based group training in fostering empathy practice and enhancing participants' empathy skills. Furthermore, participant feedback indicated that the program offered opportunities for self-reflection on their nursing practices and encouraged them to apply the exemplary empathetic expressions introduced during the training in clinical settings. This feedback underscores the program's feasibility and practical relevance.

Positive changes in peer support levels were also observed after the program, aligning with Yoo's (2020) findings, which reported improvements in peer support following implementing a PFCC education program for clinical nurses. The program incorporated shared experiences of peer support and role-playing exercises to practice peer support behaviors, delivered in small groups of 2–5 members consisting of nurses from the same department. Although limited evidence compares peer support outcomes between same-department and mixed-department group training, group members from the same department likely fostered familiarity and mutual understanding, positively influencing peer support competencies. Participant feedback indicated that learning alongside familiar colleagues reduced discomfort during role-playing and facilitated more open exchanges of opinions during group discussions, highlighting the potential effectiveness of same-department group training. Nevertheless, future studies are needed to validate the impact of group familiarity on peer support outcomes.

The observed positive changes in PCCN level suggest the program's potential to enhance overall PFCC competencies. Although the measurement tool used in this study differed from those in previous research, the findings align with studies that report improved PFCC performance levels among ICU nurses following education interventions (Eggenberger et al., 2016; Sangi et al., 2023). Participants provided feedback indicating that the program helped them transform previously abstract knowledge about PFCC interventions into concrete understanding by using evidence-based resources. This led to increased confidence and motivation for implementation. These changes likely

contributed to the observed improvements in PCCN level, supporting the program's feasibility and relevance. Based on the results, all components of the preliminary program were incorporated into the final program.

In this study, 12 participants were divided into small groups for educational sessions, with group sizes ranging from 2 to 5 members per session to accommodate nurses working in three shifts. While the initial plan was to form two groups of six, adjustments were made to fit scheduling needs. The feedback from participants in this study indicated that the optimal group size varied depending on the session format. For synchronous virtual sessions, smaller groups of 2–3 members were reported to enhance focus and interaction. In contrast, larger groups of five members were preferred for face-to-face sessions, as they provided greater opportunities for peer learning. These findings align with the results of Yang and Kim (2020), who emphasized the importance of tailoring group size to the specific teaching strategy in nursing education programs.

With regard to education durations, each session was initially designed to range from 60 to 70 minutes, informed by previous studies (Cho, 2023; Kim & Kim, 2019). While robust evidence regarding the optimal duration for nursing education programs is limited, participant feedback in this program indicated a need for extending the time allocated to role-playing and group discussion activities to better facilitate the development of practical application skills. In response to this feedback, the session duration was extended to 90 minutes, consisting of 50 minutes of theoretical instruction, a 10-minute break, and 30 minutes of application-based activities.

Future studies should further evaluate effectiveness of this program and investigate optimal group sizes, session durations, and operational methods to enhance PFCC education across diverse settings.

A key lesson learned was the need to strengthen pre-class guidance. Some participants attended environments where a quiet setting was not guaranteed, while one participated during

commute. Additionally, issue such as disruptions caused by low battery levels interfered with the smooth progression of the classes. While these can be considered limitations of real-time online learning, they can be partially mitigated by reinforcing pre-class guidance. Future studies should improve pre-class guidance to ensure learners are better prepared to participate in a quiet learning environment and remain focused without interruptions.

6.3. Limitation

The limitations of this study are as follows: First, the preliminary research for program development was conducted exclusively with nurses from adult ICU in a single tertiary hospital, limiting the findings' generalizability.

Second, the program developed in this study was tailored explicitly for nurses working in adult ICU. Adult and pediatric ICU significantly differ in patient disease characteristics, family dynamics, patient care and decision-making involvement, and preferences (Nam et al., 2023; An & Ahn, 2020). Consequently, this program did not address the unique needs of nurses working in pediatric ICU, and the case studies designed for practical application were primarily intended for adult ICU. Therefore, the program has limitations when applied to nurses in pediatric ICU.

6.4. Significance of the study

6.4.1. Nursing Theory

This study established a conceptual framework for developing a program aimed at enhancing patient- and family-centered care (PFCC) competencies among nurses, based on the Person-Centered Nursing (PCN) theory. By evaluating the applicability of the program with adult ICU nurses, this study validated the utility of the theory and expanded its scope of application. Consequently, this theory can serve as a theoretical foundation for developing educational programs to enhance PFCC competencies, not only for ICU nurses but also for a broader range of nurses and nursing students in the future.

6.4.2. Nursing Research

The applicability of this education program has been confirmed, and it holds significance as foundational data for future studies aimed at evaluating its practical effectiveness with a larger cohort of nurses. Furthermore, by integrating standardized patients and simulation-based teaching methods into role-playing activities designed around specific cases for practical application training in each session, it is anticipated that this approach will contribute to the development of more dynamic and realistic educational programs and promote research to validate their effectiveness.

6.4.3. Nursing Practice

Prior to this study, there were no PFCC education programs specifically designed for adult ICU nurses in Korea. This study developed an educational curriculum reflecting the needs of ICU nurses and aimed to enhance practical application by incorporating real-life scenarios commonly encountered in ICU settings. The program's applicability was evaluated with practicing nurses,

adding significance to its potential use in clinical practice. Based on these results, it is anticipated that continuous education and training programs to enhance PFCC competencies will be expanded for nurses. Additionally, through further procedures, this program could be registered as part of continuing education for nurses, contributing to the development of specialized nursing professionals. Furthermore, by extending the program's scope to various nursing settings, such as hospital wards, long-term care facilities, and community care, this study is expected to contribute to the expansion and advancement of PFCC nursing practice.

7. Conclusion

This study is a methodological investigation conducted to develop an educational program to enhance PFCC competencies among adult ICU nurses. Utilizing the ADDIE model, the study followed the ADD stages to design a preliminary educational program, evaluate its applicability among adult ICU nurses, and finalize the program.

The conceptual framework for this program was based on the PCN theory by McCormack and McCance (2006). The program incorporated key competencies for PFCC: professional competency, self-awareness, clarity of values and beliefs, commitment to the job, interpersonal skills, peer support, and the ability to manage the physical environment in ICU settings. The preliminary education program was developed based on a systematic literature review and interviews with adult ICU nurses, which focused on exploring their educational needs and experiences regarding PFCC. Following two expert validity testing, the program was revised and finalized as a preliminary education program. This program was then applied to 12 adult ICU nurses, and its feasibility was evaluated through pre- and post-surveys and group interviews. The final program consisted of six sessions utilizing blended strategies that combined face-to-face and synchronous virtual classes. Each session lasted 90 minutes and was conducted over four weeks.

The contents of the program focused on enhancing nurses' professional competencies in PFCC, self-awareness as PFCC practitioners, recognizing and integrating their values and beliefs into practice, balancing their passion for PFCC with conflicting roles, developing effective communication skill with patients and families, fostering empathy, strengthening collaborative skill, and managing the physical environment and peer support in ICU settings.

The evaluation results showed an increasing pattern in scores for patient-centered communication, empathy, peer support, and person-centered critical care nursing levels after the program. Additionally, group interviews revealed positive feedback, including improved knowledge and motivation for PFCC, enhanced self-reflection, and behavioral changes, confirming the program's feasibility.

The PFCC education program for adult ICU nurses developed in this study can serve as foundational data for future research to verify the program's effectiveness. Ultimately, enhancing PFCC competencies through this program is expected to improve patient and family care experiences and satisfaction while fostering a culture of PFCC. Based on the study results, the following recommendations are proposed:

1) This study focused on program development, and the program's effectiveness for adult ICU nurses was not evaluated. Future intervention studies should assess the program's effectiveness with adult ICU nurses across hospitals of varying sizes and explore its broader application. Additionally, it is recommended that follow-up assessments be conducted after a certain period to evaluate the sustainability of its effects.
2) Develop PFCC competency enhancement programs tailored for pediatric and neonatal ICU nurses, evaluate their applicability and effectiveness, and address the unique characteristics of these specialized settings.
3) Incorporate standardized patients into role-playing and simulation-based education aligned with the themes of each session. This approach creates more realistic and engaging practical training, enhancing nurses' ability to apply PFCC effectively in clinical practice.

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Appendices

Appendix 1. Approval from the institutional review board

서울대학교의과대학/서울대학교병원
의학연구윤리심의위원회

IRB SNUCM SNUH
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심의결과통보서

IRB No.	H-2404-128-1534		제출경로	서울대병원		
수신	책임연구자	주영신	소속	간호본부	직위	간호직
	의뢰기관					
연구과제명	중환자실 간호사 대상 환자-가족중심간호 역량증진교육 프로그램 개발					
Protocol No.			Version No.			
생명 윤리법에 따른 분류	■ 인간대상연구 □ 인체유래물연구 □ 배아줄기세포주이용연구 □ 배아연구 □ 체세포복제배아연구 □ 단성생식배아연구 □ 배아생성의료기관 □ 인체유래물은행					
연구종류	■전향적 연구(Prospective Study) □후향적 연구(Retrospective Study)					
	□비중재(관찰)연구	□사례(환자)등록연구(Registry study) □코호트 연구(Cohort study) □사례(환자)군연구(Case Series) □증례보고(Case Report) □단면연구(Cross-Sectional study) □환자대조군연구(Case-Control study) □조사,설문,인터뷰연구 □사회행동과학 연구(Social, Behavioral & Research) □인체유래물 조사분석연구 □인체유래물저장소(Repository) □생태학적 연구(Ecological study) □시판후사용성적조사(PMS) □임상시험용의약품/의료기기 치료목적 사용 □기타				
	□의약품/의료기기 임상시험 등	□의약품/생물학적 제재 임상시험	□예비연구(Pilot Study) □약동학·약력학 연구 □생물학적동등성 □제1상 □제1/2상 □제2상 □제2/3상 □제3상 □제4상			
		□첨단바이오의약품 임상시험	□세포치료제 □유전자치료제 □조직공학치료제 □융복합치료제 □장기추적조사			
		□의료기기 임상시험	□예비연구(Pilot Study) □탐색 임상시험 □확증 임상시험			
			분류번호/등급			
		□체외진단의료기기 임상적 성능시험	□탐색 임상시험 □확증 성능시험			
			분류번호/등급			

서울대학교의과대학/서울대학교병원
의학연구윤리심의위원회

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		식약처 승인 여부	□식약처 승인 대상 □식약처 승인 제외 대상	
	■기타 중재연구	■기타 임상시험	□의료행위(수술법,마취법 등) □개인용 건강관리 중재 ■기타 교육중재(예비조사 및 인터뷰포함)	
		□인체적용시험	□화장품 인체적용시험 □건강기능식품 인체적용시험	
	□첨단재생임상연구	□세포치료 □유전자치료 □조직공학치료 □융복합치료 □장기추적조사 □인체세포등 채취 및 처리연구		
		첨단심의위원회 심의결과	위원회 승인일	
			위험도	□저위험 □중위험 □고위험 식약처 승인일( )

연구목적	□국내(MFDS)허가용 □해외허가용 ■학술용		
연구계획서 승인일	2024년 05월 24일 (정기보고주기 : 12개월)		
승인유효 만료일	2025년 05월 23일		
심의대상	연구계획심의 의뢰서(시정승인에 대한 답변)		
심의종류	신속심의	심의일자	2024년 05월 24일
접수일자	2024년 05월 23일	심의결과통보일	2024년 05월 24일
심의목록	1. 연구계획심의 의뢰서(시정승인에 대한 답변)		
심의결과	승인		
연구의 위험도	최소위험 연구(minimal risk)		
심의의견	- 검토의견에 대한 답변 및 변경 사항을 확인하였고, IRB 승인 기준에 따라 승인합니다.		

의 학 연 구 윤 리 심 의 위 원 회 위 원 장

본 통보서에 기재된 사항은 IRB의 기록된 내용과 일치 함을 증명합니다.
본 기관 IRB는 생명윤리 및 안전에 관한 법률, 약사법, 의료기기법 및 ICH-GCP 등 관련 법규를 준수합니다.
본 연구와 이해충돌(COI)가 있는 위원이 있을 경우 연구의 심의에서 배제하였습니다.

Appendix 2. PFCC education program in nursing area

Author (year)	Participants	Contents	Duration	Evaluation time point	Outcomes
Kim (2023)	Nursing students (3rd semester) Total N=60 IG:31, CG:29	・ Empathy (15min*4), ・ communication training (15min*4)	Total: 2 weeks, 2times/week 65min/session	Pre, post	・ Individualized care ・ empathy ・ communication skill ・ clinical practice stress
Park (2021)	Nursing students (4rd semester) Total N=105	・ Design-thinking based PCC education program (scenario: improving ICU bedside environments)	Total: 5 weeks, 1time/week, 2hrs/session	Pre, Post	・ Perceptions of nursing students about PCC.
Leeuwen (2018)	Nursing students, (3rd semester) Total N=14 (Qualitative descriptive study)	Knowledge: lectures on person-centered care and a classroom session ・ Skills: reflection skills (reflection on the theoretical and practical elements of PCC ・ Attitudes: personal interaction with fellow students, practitioners, lectures	Total: One semester course (20weeks) 48hr lecture, 480hrs practice	Post (analysis of reflective reports)	・ Awareness ・ Understanding, skills (reflection skills) ・ Person-centered care
Kong (2020)	Nursing home staff (RN, Nursing assistant, geriatric care worker) Total N=62 IC:31, CG:31	・ Dementia definition, prevalence, causes, ・ diagnosis, symptoms, managements ・ Person-centered dementia care ・ Case of person-centered dementia care	One: classroom-based education (60min) & One: online education (60min)	Pre-post test	・ Personhood in dementia
Yoo (2018)	Clinical nurses (General special ward) Total N=57 IG:29, CG:28	・ Self-awareness ・ Interpersonal skill ・ Self-esteem ・ Co-worker support	Total: 3 weeks 2times/week 60min/session	Pre, post, after 10weeks	・ Self-awareness ・ Interpersonal skill ・ Self-esteem ・ Co-worker support ・ Job satisfaction

Note. IG=Intervention group; CG=Control group; PCC=Person-centered care.

Appendix 3. The results of cross-sectional study (n = 11)

번호	저자 (년도)	논문 제목	연구설계	Type of ICU/ participants	PFCC수행에 의미 있는 요인
A1	강혜숙 & 서민정(2021)	중환자실 간호사의 인간중심 간호에 미치는 영향 요인	Cross-sectional correlational study	Adult ICU N:156 RN	• 대상자 중심 의사소통 능력
A2	김윤희 & 이예인 (2020)	중환자실 간호사의 인간중심 간호수행 영향요인: 생태학적 접근	Cross-sectional correlational study	Adult ICU N=172 RN	• 의사소통능력 • 공감 만족
A3	주영신 & 장연수 (2022)	성인 중환자실 간호사의 인간중심간호 수행과 영향요인	Cross-sectional survey	Adult ICU N=147 RN	• 의사소통능력 (global & patient centered communication skill)
A4	최승혜 (2020)	중환자실 간호사의 인간중심간호에 영향을 주는 요인	Cross-sectional survey	Adult ICU N=107 RN	• 공감 만족
A5	Youn et al. (2022)	Person-centred care among intensive care unit nurses: A cross-sectional study	Cross-sectional correlational study	Mixed ICU N=188 RN	• 중환자실 근무경력 • 공감 만족 • 감성지능(emotional intelligence)
A6	Kim et al (2023)	Factors influencing NICU nurses' parent Partnership development	Cross-sectional study	NICU/ N=140 RN	• 임파워먼트 (심리적) • 감성지능 • 대인관계능력 • 대상자 중심 의사소통
A7	Abu Lebda et al. (2023)	Self-awareness, empathy, patients-centered care among critical care nurses in Jordan	Cross-sectional, descriptive, correlational design	CCU N=140 RN	• 사회적 지지 • 인지된 스트레스(부적 영향)
A8	H. Asai (2011)	Predictors of nurses' family centered care practices in the NICU.	Quantitative cross-sectional survey	30 NICU N=680 RN N=30 Nurse manager	• FCC수행에 대한 영향요인 : FCC수행에 대한 자신감, 근무경력, 면회 정책 • FCC수행에 대한 자기 효능감 영향요인 : 중환자실 근무경력, 면회 정책, 가족이 환자care에 참여할 수 있도록 하는 지지
A9	Alhalal et al. (2020)	Predictors of patient-centered care provision among nurses in acute care setting	A cross-sectional predictive design	5 hospitals N=255 RN in acute care setting	• 공감 만족 • 공감피로에서 소진(부적 영향) • 구조적 임파워먼트 (work)
A10	임지현 & 안민정(2023)	상급종합병원 중환자실 간호사의 간호역량인식과 도덕적 민감성이 인간중심간호에 미치는 영향	Cross-sectional correlational study	Adult ICU N=222 RN	• 간호역량인식 • 도덕적 민감성

Appendix 4. The results of qualitative study (n = 6)

No.	Author (year), Country	Main aim of the study	Study Design	Type of ICU	Participants (Sample size)	The nurse competency related to perform PFCC
B1	Cederwall et al., (2018), Swedden	1) Determine if the three elements of person-centred care (initiating, working and safe-guarding the partnership) were present 2) Identify evidence of barriers to person-centred care during prolonged weaning	Secondary analysis of qualitative data	3 ICUs (medical-surgical ICU & 2 general ICUs)	RN N=19	**Interpersonal skill** • Empathic listening, mentally engaged with the patient • Working the partnership: shared decision making • Promoting patients and family participation in weaning process • Design and sharing the plan with patients • Secure the weaning plan considering patient preference, time etc. **Barriers to person-centred care** • Lack of team collaboration • Lack of resources (lack of time, nurses)
B2	Cho & Han (2024), South Korea	To explore the need for nurse-patient partnerships based on NICU nurses' practical experience.	Qualitative interpretative design (Using FGI)	NICU (A university hospital NICU)	RN N=18	**Professionally competent** • Updated with evidence-based neonatal practice • Recognizing FCC, practicing nursing skills • Participating in continued education and professional development. **knowing self & empathy skill** • Engaging in self-reflection, expressing therapeutic empathy. **Interpersonal skill** • Fostering effective communication • Identifying parental interests, needs, and priorities • Responding sensitively to parents' feeling & situations **Clarity their value and belief** • Ethical responsibility. **Care environment.** • Collaborative teamwork
B3	Gilstrap (2021), India	Sensemaking strategies nurses use with parents to meet the goals of family-centered care	Qualitative methods	NICU	RN N=14	**Interpersonal skill: communication & participation skills** **1) Shared information through communication skills** • Explain nature of treatment and procedures • Address future experiences and treatment • Use familiar language -Promote open communication • Develop positive rapport -Keep in constant contact • Ask and encourage questions **2) Encourage meaningful involvement** • Involve in care, decision making

Appendix 4. The results of qualitative study (Cont'd)

No.	Author (year), Country	Main aim of the study	Study Design	Type of ICU	Participants (Sample size)	The nurse competency related to perform PFCC
B4	Esmaeili, Cheraghi, & Salsali, 2016	Explore cardiac patients' perception of patient-centred care.	Descriptive qualitative content analysis study	Coronary care units	Cardiac patients N=18 (10 women/8men)	**Interpersonal skill** • Effective communication skills with managing patients' uncertainty: sharing information and respect • Empathizing skill • Shared decision making: having right to make independent decisions, give information, consider patient preference and viewpoints. **Care environments** • Visiting policy
B5	Oude Maatman et al., 2020 Sweden, Norway, & Netherlands	Which factors can contribute or withhold the implementation of FCC	A descriptive generic qualitative design	NICU	Total: 20 • RN (N=7) • Nurse assistant (N = 1), • Neonatologists (N = 5), • Managers (N = 3).	**Professional competency** • Educating healthcare providers in FCC • Sharing scientific evidence with healthcare professionals • Achieve better understanding of the importance of FCC • Motivation to perform FCC **Interpersonal skill** • Participation in patients' care & medical Rounds • Shared information based on open communication with parents **Care Environment** • Facilities on the Ward • Legislation (visitation policy)
B6	Jakimowicz et al (2018) Australia	To explore patient-centred nursing, compassion satisfaction and compassion fatigue from intensive care nurses' perspectives. (how they viewed PCN and their role as critical care nurses)	qualitative research design (in-depth interviews)	Two adult ICUs	RN N=21	**Professionally competent** • Expert skills and knowledge • Apply knowledge of pathophysiology and technology **Knowing self** • Knowing self about own clinical competency, and adequately getting educate • Knowing own feelings, emotions and control **Commitment to the job** • Passion and pressure: loved their job, describing feelings of passion providing PCN vs felt the pressure that care with the scope their role **Care environment** • Supportive teams, system: co-worker support • Physical environment. : the competency of control physical environment & safety

Note. ICU=Intensive care unit; RN=Registered nurse; NICU=Neonatal ICU; FGI=Focus group interview; PCN=Person-centered Nursing.

Appendix 5. The characteristics of quantitative study (n=5)

No	Author, (year)	Country	Aim of study	Study design	Type of ICU	Participants /Sample size (n)	Educational strategies		Outcome variables & results
							Education session & Methods	**Duration**	
C1	Kim et al. (2011)	USA	Evaluate the program of family-provider alliance for nurses.	Non-RCT	· SICU · NICU · IMU	· RN IG (N=206) CG (N=69)	**Theoretical session** · Lecture · Group discussion, · Role play · video (P/F experience)	·Total 4 month -Theoretical session over a period of 2 months (Total one session /4hrs)	·The level of family-nurse therapeutic alliance (+) ·Job satisfaction & Perceived quality of care (-)
							Practical session 1) Partnership agreement: One-page Sheet posted on patient's room ・ Build partnership ・ Give information in timely manner ・ respect family beliefs, concerns 2) "All about me" poster · Improve personal connect with P/F	for 2 months	
C2	Eggenberger et al. (2016)	USA	Examine educational program on nurses' attitudes and confidence in providing family care	Mixed method	· Adult ICU	· RN N=24(pre), 5(FGI), 14(post)	**Theoretical session** · Distal stories of family members and nurses · Role play · Printed Material (current evidence family intervention) · Dialogue b/w nurses about family experience and interventions	· Workshop (4 hours)	RN · Quant: The level of Family nursing practice (+), · Knowledge (+) ·Qual: RN' feedback 1)Empathic understanding 2)Validating the importance of family care 3)Learning new tools for family practice.

Appendix 5. The characteristics of quantitative study (Cont'd)

No	Author, (year)	Country	Aim of study	Study design	Type of ICU	Participants/ sample size (n)	Educational strategies		Outcome variables & results
							Education session & Methods	Duration	
C3	Walter & Robb (2019)	USA	Increase knowledge of FCC practice and integrate FCC into practices for nurses.	Non-RCT (pre-post design)	· NICU	·RN N=159 (pre) 61(post)	**Theoretical session** · Lecture (+online version) · Narrative pedagogy · Group discussion with case exemplars	Total 8 weeks 1) Theoretical session over a period of 4 weeks (Total one session /30min)	· Knowledge (+) (about FCC concepts)
							Practical session · Mentoring with the project manager 1) Discussion with project manager about situation-specific concerns 2) Provide evidence-based practice literature 3) provide Infographic care, small charm	2) 4 weeks mentoring session	
C4	Beierwaltes (2020)	USA	Facilitate implementation of family nursing	Mixed method	· IMU · Critical care unit	· RN (N=36) · Family members (N=49)	**Theoretical session** · Digital storytelling via video · Lecture (related 6 themes) · Group discussion	One day workshop	·RN: The level of family nursing practice (-) ·Family: perceived support level (+) ·Qualitative Positive of satisfaction

Appendix 5. The characteristics of quantitative study (Cont'd)

No	Author, (year)	Country	Aim of study	Study design	Type of ICU	Participants/ sample size (n)	Educational strategies		Outcome variables & results
							Education session & Methods	**Education session & Methods**	
C5	Sangi et al. (2023)	Iran	Effects of supportive-educational program to increase family nursing practice for nurses.	Non-RCT (pre–post design)	·Adult ICUs	· RN (N=72) · Family members (N=45)	**Theoretical session** · lecture for nurse managers & supervisors · Group discussion · Social media for nurses due to COVID-19 **Practical session** · Family meeting under the supervision by nurse managers and supervisors	1st 4 weeks · Lecture (6hrs) · 1-month for nurses (originally planned 6hrs workshop) 2nd 4 weeks · practical session	· RN: The level of Family nursing practice (+) · Family: satisfaction (+), perceived support level (+)

Note. USA=United State of America; RCT=Randomized Controlled Trial; SICU=Surgical ICU; NICU=Neonatal ICU; IMU=Intermediate care unit; RN=Registered nurse; IG=Intervention group; CG=Control group; FGI=Focus group interview; FCC=Family-centered care.

Included studies in literature review

A1-A10

A1. Kang, H. S., & Seo, M. (2021). The factors affecting person-centered care nursing in intensive care unit nurses. *Journal of Korean Critical Care Nursing, 14*(3), 14–23. https://doi.org/10.34250/jkccn.2021.14.3.14

A2. Lee, Y., & Kim, Y. (2021). Influencing factors on performance of person-centered care among intensive care unit nurses: An ecological perspective. *Korean Journal of Adult Nursing, 33*(5), 522–531. https://doi.org/10.7475/kjan.2021.33.5.522

A3. Joo, Y. S., & Jang, Y. S. (2022). Predictors of person-centered care among nurses in adult intensive care units. *Journal of Korean Clinical Nursing Research, 28*(1), 34–44. https://doi.org/10.22650/JKCNR.2022.28.1.34

A4. Choi, S. (2020). Factors affecting the person-centered care among critical care nurses. *Journal of Korean Critical Care Nursing, 13*(2), 36–47. https://doi.org/10.34250/jkccn.2020.13.2.36

A5. Youn, H., Lee, M., & Jang, S. J. (2022). Person-centred care among intensive care unit nurses: A cross-sectional study. *Intensive and Critical Care Nursing, 73,* 103293. https://doi.org/10.1016/j.iccn.2022.103293

A6. Kim, E. K., Cho, I. Y., Yun, J. Y., & Park, B. (2023). Factors influencing neonatal intensive care unit nurses' parent partnership development. *Journal of Pediatric Nursing, 68,* e27–e35. https://doi.org/10.1016/j.pedn.2023.07.005

A7. Abu Lebda, H., Malak, M. Z., & Hamaideh, S. H. (2023). Self-awareness, empathy, and patient-centered care among critical care nurses in Jordan. *Psychology, Health & Medicine, 28*(9), 2764–2775. https://doi.org/10.1080/13548506.2023.2177058

A8. Asai, H. (2011). Predictors of nurses' family-centered care practices in the neonatal intensive care unit. *Japan Journal of Nursing Science, 8*(1), 57–65. https://doi.org/10.1111/j.1742-7924.2010.00158.x

A9. Alhalal, E., Alrashidi, L. M., & Alanazi, A. N. (2020). Predictors of patient-centered care provision among nurses in acute care settings. *Journal of Nursing Management, 28*(6), 1400–1409. https://doi.org/10.1111/jonm.13095

A10. Yim, J., & An, M. (2023). The impact of perceived nursing competency and moral sensitivity on person-centered care among intensive care unit nurses. *The Korean Society of Health and Welfare,* 403–403.

B1-B6

B1. Cederwall, C.-J., Olausson, S., Rose, L., Naredi, S., & Ringdal, M. (2018). Person-centred care during prolonged weaning from mechanical ventilation, nurses' views: An interview study. *Intensive and Critical Care Nursing, 46,* 32–37. https://doi.org/10.1016/j.iccn.2018.01.001

B2. Cho, I. Y., & Han, A. Y. (2024). Neonatal nurses' educational needs in a family-centered partnership program: Five ways of knowing. *Nurse Education Today, 133,* 106028. https://doi.org/10.1016/j.nedt.2023.106028

B3. Gilstrap, C. M. (2021). Organizational sensegiving in family-centered care: How NICU nurses help families make sense of the NICU experience. *Health Communication, 36*(13), 1623–1633. https://doi.org/10.1080/10410236.2020.1787971

B4. Esmaeili, M., Cheraghi, M. A., & Salsali, M. (2016). Cardiac patients' perception of patient-centred care: A qualitative study. *Nursing in Critical Care, 21*(2), 97–104. https://doi.org/10.1111/nicc.12120

B5. Oude Maatman, S. M., Bohlin, K., Lilliesköld, S., Garberg, H. T., Uitewaal-Poslawky, I., Kars, M. C., & Van den Hoogen, A. (2020). Factors influencing implementation of family-centered care in a neonatal intensive care unit. *Frontiers in Pediatrics, 8,* 222. https://doi.org/10.3389/fped.2020.00222

B6. Jakimowicz, S., Perry, L., & Lewis, J. (2018). Insights on compassion and patient-centred nursing in intensive care: A constructivist grounded theory. *Journal of Clinical Nursing, 27*(7–8), 1599–1611. https://doi.org/10.1111/jocn.14207

C1-C5

C1. Kim, S. C., Yates, A. D., Graham, P., & Brown, C. E. (2011). Family-provider alliance program in intensive care units. *Clinical Nursing Research, 20*(3), 245–262. https://doi.org/10.1177/1054773811409891

C2. Eggenberger, S. K., & Sanders, M. (2016). A family nursing educational intervention supports nurses and families in an adult intensive care unit. *Australian Critical Care, 29*(4), 217–223. https://doi.org/10.1016/j.aucc.2015.11.004

C3. Sangi, S., Abbasi, M., Nabavi, F. H., Miri, H. H., Langari, M., Nekouei, M., & Haji Abadi, F. (2023). Enhancing family nursing practice: The effect of a supportive-educational programme on the family nursing practice, family satisfaction and family perceived support in the intensive care unit. *Family Medicine & Primary Care Review, 25*(2), 121–127. https://doi.org/10.5114/fmpcr.2023.127678

C4. Walter, L., & Robb, M. (2019). Promoting discharge readiness through staff education: A family-centered approach. *Journal for Nurses in Professional Development, 35*(3), 132–136. https://doi.org/10.1097/NND.0000000000000539

C5. Beierwaltes, P., Clisbee, D., & Eggenberger, S. K. (2020). An educational intervention incorporating digital storytelling to implement family nursing practice in acute care settings. *Journal of Family Nursing, 26*(3), 213–228. https://doi.org/10.1177/1074840720936733

Appendix 6. The contents of education program for ICU nurses based on PCN theory (n=5)

Domain	Sub-domain		Kim et al (2011)	Eggenberger et al. (2016)	Walter & Robb (2019)	Beierwaltes (2020)	Sangi et al (2023)
Prerequisites	Professional competency	• The ability to integrate knowledge principles into daily practices.	• Central concept of partnership	• Provide knowledge of current evidence related to family practice.	• Knowledge about PFCC -central tenets of PFCC -barriers & means of overcoming barriers -impact of PFCC • Encourage discussion to resolve concerns using case exemplars • Supported by mentors in clinical setting	• Knowledge about evidence-based family nursing practice • knowledge about Conceptual definition and background theory related to the six concerns • Address concerns and generate ideas for practice change on units.	• The knowledge that nurses can provide to the families of unconscious patients. • Supervision RN's family meeting by nurse managers
	Interpersonal skills	Communication & Empathy skill	•Positive communication with families •Conflict resolution skills • Treat psychosocial issue • Meeting the needs of family	• Multiple strategies for developing therapeutic conversation with families •The ability of a nurse in easing the suffering of families. • Empathic skills	-	• Communication skills with families using appropriate manner (ongoing information, explain unfamiliar environment, responsiveness family cues)	• Establishing correct communication with the patients' family members • Identifying and diagnosing the needs of families. • Empathy skills and prevention of violence in the patients' family
		Collaboration	•Theoretical components •To enhance personal connection with P/F using the poster •Partnership agreement: building partnership	-	-	-	-

		With families, Information sharing, Respect for family privacy, beliefs, concerns.				
	Commitment to the job	-	-	-	-	-
	Clarity of beliefs and values	-	-	-	-	-
	Knowing self	-	• Reflections on nurses and ill experiences during critical illness.	• Encourage reflection on professional practice	-	-
Care Environment	Supportive working environment	-	-	-	-	• Educate nursing managers: communication skills, monitoring & feedback, motivating employees

Appendix 7. In-depth interview of participants

▶ PFCC에 대한 인식	
1) PFCC에 대한 이해 부족	
들어본 경험이 없거나 있어도 이해가 부족함	*"들어본 적은 없어요"(R2, R2, R7)* *"수업시간을 통해 들어본 경험은 있어요" (R3)* *"들어본 적은 있는 것 같아요. 그냥 그 단어만 알아요" (R4)*
실무에서 적용까지 고려하기 어려움`	*"실제 일하면서는 환자-가족중심간호에 대해 크게 느낀 건 별로 없는 것 같아요" (R3)* *"학교에서 이론적으로 배워본 경험이 있지만, 이게 임상에서 실제로 일할 때 적용될 수 있는 내용일까 싶기는 했는데 아니나 다를까 이제 막 실제로 일하니 적용할 수 있는 연결고리가 많이 없는 것 같아서 잊고 지냈던 개념인 것 같기는 해요"(R7)*
2) 교육을 통한 PFCC 전문성 강화의 중요성을 인식	
PFCC에 대한 이해가 선행되어야 함	*"환자가족중심간호가 중요한 개념인 것 같아서 교육이 제공된다면 보다 수준 높은 간호를 제공하는데 큰 도움이 될 것 같아요."(R1)* *"정확한 개념을 알고 수행하는 것이 필요한데, 교육 없이는 스스로 공부하지 않을 것 같아요."(R7)* *"환자-가족중심간호라는 말에 대한 이해가 필요할 것 같아요"(R4)*
전문지식을 바탕으로 한 정보 제공이 필요함	*"제가 PFCC수행을 잘 하려면 이 환자의 치료 과정이 어떻게 거쳐 여기까지 왔는지를 이해하는 과정이 필요하다고 생각하거든요."(R3)* *"환자 상태에 대해 보호자한테 간호사가 말할 수 있는 범위를 어느 정도 정해서… 환자 상태에 대해서 조금 많이 설명을 해줬으면 좋겠다는 생각이 드는 게 항상 중환자실에서는 보호자분이 환자 상태 어때요 치료 어떻게 할 거냐 물어보면 좀 전반적으로 의사한테 이렇게 너무 떠넘기는 게 이제 사실 간호사도 알고 있고 알아야 된다고 생각하거든요."(R7)* *"중환자실에서는 좀더 전문적이면서 현재상황에 대한 객관적인 정보를 제공하고, 환자의 치료 방향성을 알고 간호사가 전문지식을 갖고 정보를 제공하는 게 중요할 것 같아요"(R4)*
▶지각된 어려움	
1) 의사소통	
인공호흡기 치료 받는 환자의 의도를 정확하게 알기 어려움	*"인공호흡이 갖고 있는 환자들이 이렇게 뭐라고 쓰잖아요. 저는 뭐라고 쓰신지 잘 모르겠고 말하려고 하면 막 환자 vital흔들리고, 호흡수 증가하고…환자는 자기 말 못 알아준다고 난간을 계속 치고…"(R2)* *"인공호흡기 가지고 있는 환자 일단 구두로 말을 할 수 없으니까 본*

	인이 답답한데 만약에 sedation이 딥하게 되어 있지 않은 경우에는 이제 의사소통을 본인이 하려고 노력을 하지만 말이 안 나오니까 거기서 오는 그 의사소통의 어려움과 그리고 다른 경우는 뭔가 섬망이 있는 경우가 이제 또 의사소통이 힘든데 제대로 원하는 의사소통이 힘든 그런 경우 더 많을 것 같아요." (R5) *"저도 똑같이 제일 대표적인 게 인공호흡기 치료받는 환자요. 손짓이나 표정만으로도 되는 게 아니잖아요. 자기 요구 사항이 가리키는 것만으로도 한계가 있고 그게 가장 힘들었던 의사소통에 힘들었던 것 같아요" (R2)*
섬망 환자의 다루기 힘든 요구들	*"섬망이 있는 환자분들은 의사소통 자체도 좀 문자가 있는 경우가 있고 좀 말이 안되는 요구를 자꾸 말씀하시면 사실 여러 번 반복해서 얘기해도 대화가 안되니까 조금 힘든 경우가 있더라고요" (R7)* *"뇌 수술한 환자였는데 차키 갖고 와라 운전해서 가겠다. 내 신발 어디 있냐 대화가 잘 안돼서 힘들어요" (R4)* *"섬망 있는 환자와 의사소통 할 때 힘들어요" (R2)*
감정이 격양된 보호자와 소통이 꺼려짐	*"저는 갑자기 예약이 안되어 있는 환자가 post op로 ICU오는 경우에 vital이 안 좋아서 온 거고 저도 아직 환자 상태에 대해 파악이 안되어 있고 보호자는 자기 아무 설명도 못 들었다. 언제 설명들을 수 있냐고 막 따지고(…)" (R2)* *"감정이 격한 보호자들은 제가 사실 무슨 말해도 잘 들리지도 않고 이럴 때는 그냥 자리를 피해요" (R6)*
불확실한 예후에 대한 질문 응대 시 난처함	*"치료의 전반적인 이해를 못해서 저한테 치료결과가 어떻게 될 것 같냐 또 분명 환자 상태에 대해 객관적으로 의사분들도 그렇고 저희도 다 설명 드렸는데 그러면 살 확률이 어떻게 되나요? 라는 질문을 하실 때 뭐라고 해야 할 지 모르겠어요" (R5)* *"Traumatic SDH나 SAH로 심각한 경우 사실 예후도 명확하지 않잖아요. 그냥 보호자한테 기다려보자는 답답한 소리밖에 못하니까…" (R7)*
환자의 평소 가치관과 선호도에 대해 모르는 가족과의 의사소통	*"면회 시간에 다른 보호자가 오더니 왜 살렸냐고, 인공호흡기는 왜 달았냐고 막 그러시고, 굳이 수술을 왜 했냐고 할아버지가 환자인데 할머니가 면회 오셔서 그러시더라고요. 이럴 때 진짜 당황스러워요. 가족들끼리 의사소통이 안된 상황에서 왜 우리한테 와서…" (R2)* *"연명의료계획서 쓰려면 생전에 환자가 안 좋아지기 전에 의사결정 능력이 있으셨을 때 환자가 혹시 죽음에 대해 어떤 생각을 갖고 계셨냐 이렇게 물어보면 모르는 가족들이 되게 많아요. 다 모르신대요" (R1)*
환자 치료 계획에 대한 설명은 의사의 역할이라는 생각	*"저희 보통 차지 선생님들도 보호자가 자세한 상담이나 정보를 원하면 주치의 선생님한테 넘기라고 계속 신규 때부터 들어왔던 거라…" (R5)*

	"중환자실에서 보호자 분이 환자 상태 어때요? 치료 어떻게 할 거냐 이런 거 물어보면 좀 전반적으로 의사한테 너무 떠넘기는 게..." (R7) *"보호자분이 환자 상태 어떠냐고 치료 어떻게 할거나 물어보면 좀 전반적으로 의사한테 이렇게 너무 더 넘기는게(…) 환자의 치료 전반적인 계획 이런거를 너무 의사 몫이라고만 생각하지 말고..." (R7)*
가족들에게 정보제공시 간호사 역할의 한계를 경험	*"담당간호사로서 보호자에게 많은 것을 설명하고 현재 상태에 대해 말하지만 결국 보호자는 담당의사를 찾는 경우가 많아요... "(R4)* *"갑자기 환자가 회복실에서 안 좋아서 중환자실로 왔는데 저는 아무것도 못 들었거든요. 그냥 뭐 Vital흔들린다 이정도… 보호자들이 자기 설명 못 들었다. 그러면서 설명을 바라는데 저도 주치의한테 들은 바가 없어서 설명도 못해 주고…주치의도 아직 환자 파악 안됐다 그러고.. 그럼 또 보호자는 저희한테 막 complaint하고(…)"*
공감 표현에 대한 불확실한 이해	*"환자가 20살 젊은 딸인데 교통사고 당해서 결국 양쪽 다리를 amputation했거든요. 딸은 면회 시간에 엄마한테 엄청 투정 부리고 엄마는 계속 눈물만 흘리시고 그러시더라고요. 저는 뭐라고 공감을 해드리기 어려워서 어머니한테 어리광 피우고 싶어서 그런거다 너무 마음쓰지 마시라 뭐 이렇게 말씀을 드렸던 경험이 있어요" (R2)* *"저는 근본적으로 좀 공감을 원래 잘 못하는 타입이라 한다고 하는데 약간 그게 진짜 환자나 가족들이 공감으로 느꼈을까 하는 마음이 들긴 해요." (R1)* *"뭔가 공감을 하는데 사실 보호자가 제일 듣고 싶은 말은 이 환자가 그래서 좋아질 거다. 건강해질 거다. 이 병원에서 퇴원하실 거다 이런 말이 듣고 싶으신 것 같은데…" (R3)* *"그냥 보호자는 보호자가 생각하는 대로 일단 내버려두고 전 공감을 표현하기 보다 사실만 전달해 드리는게 가족들 한테 더 도움이 되겠다 싶은 경우도 있긴 해요" (R5)*
말기 환자를 둔 가족에게 공감 표현의 어려움을 경험	*"아내분이 마지막 면회를 하시는데 너무 힘들어하고 막 우시면서 거기 결국에는 POLST(연명의료계획서)를 쓰고 치료 중지를 하겠다고 해서 morphine까지 걸고 있고 그 아 내분이 (생략) 저를 붙들고 너무 막 어떻게 해야 되는지 자기 이제 어떻게 살아야 되냐며 저를 붙들고 막 그렇게 우시는 거예요. 전 이럴 때 어떻게 해야하나(…)" (R1)* *"연명의료계획서 작성하고 죽기만을 기다리는 그런 상황에서 무슨 말도 위로가 되지 못할 텐데 나는 이 상황을 보고 해줄 수 있는 것도 없고 저는 그런 상황이 조금 힘들어요" (R2)* *"(생략) 위로나 공감을 말로 함부로 하기에 사실은 좀 조심스러운 것 같아요" (R7)* *"최대한 공감 표현을 한다고 하는 건데 되게 형식적인 말처럼 들릴*

	수도 있고 그런 게 좀 조심스러운 것 같아요.”(R1)
4) 역할 권한 부여	
직업적 틀 안에서의 간호사로서의 헌신	*“저는 업무 시간 외에 역량을 개발하는 일에 많은 시간을 소비하지 않고, 최대한 일을 하면서 정말 중요한 부분이 아닌 이상 환자와의 불필요한 감정적인 교류를 자제하려고 한다는 점에서 직업에 대한 헌신도가 크지 않아요.”(R3)* *“간호사로서 사명감보다는 직업적으로 받아들이고 있으며…”(R1)* *“직업윤리에 벗어나지 않는 선에서 헌신할 수 있지만 무조건적인 헌신은 원하지 않아요.”(R7)*
최선을 다해도 역부족으로 느껴지는 환자의 요구	*“환자는 입이 너무 마른게 힘들고 불편하고 (생략) 나는 그거 말고도 해야할 게 많고 Vital도 해야 하고 약도 줘야 하고 그런데 환자는 오로지 자기 불편한 것만 요구하고 지금 바빠서 못한다 이따 해주겠다 환자는 계속 불편하다…저는 환자 요구를 최선을 다하고 있는데 그냥 환자한테는 자기 요구는 들어주지 않는 나쁜 caregiver가 되는 거죠”(R1)* *“Ventilator갖고 있는 환자였는데 계속 자기 할 말 있다고 난간 치고 써 보시라 하고, 하고 싶은 말을 파악하려고 노력하지만, 저는 또 환자 곁에서 계속 그걸 이해할 수 있을 때까지 있을 여유도 없고 …“(R2)*
5) 조직 차원의 지원	
환자 및 가족들이 적극적으로 참여할 수 있도록 돕는 노력이 필요	*“환자와 보호자 의료진 모두 함께하는 공간에서 환자의 상태가 나빠지기 전에 다같이 논의할 수 있는 조직적인 차원의 노력이 필요하다고 생각해요.”(R3)* *“간호 대상자는 본인 스스로 치료과정에 적극적으로 참여할 권리와 의무가 있다고 생각하지만, 실제 임상현장에서는 이러한 것들이 제대로 이루어지지 않는 것 같아요. 이는 시간 및 인력, 구조적 문제가 크다고 생각해요. 개선되려면 간호사 개인보다 조직 차원에서 노력이 필요할 것 같아요.”(R1)*
늘 시간에 쫓겨 분주한 나의 업무	*“환자가족중심간호가 저의 역량만의 문제는 사실 아니다고 생각이 들기는 해요 근무환경이 뒷받침되어야…(R3)”* *“마음이 바쁘고 시간도 부족하고 환자나 가족들에게 시간을 내어줄 여유가 없는데 사실 의사소통 할 시간도 없다고 느낄 때가 많아서”(R2)* *“저희가 보호자에게 할애할 수 있는 여건도 돼야 하는데 보호자 면회 시간 중에 10분씩 보호자 응대하는 시간 이렇게 정해주고 그 동안 Acting을 도와주는 간호사 인력이 투입된다면 좋을 것 같아요”(R5)* *“저는 환자한테 더 공감해주고 싶고 시간 쏟고 싶은데, Ventilator 갖고 있고 vital 안좋은 환자 2명씩 보면 뭐(…)”(R1)*

	"환자의 가족들의 모든 생각과 고민을 들어주고 싶지만 시간적 한계가 있으며 간호사의 업무가 많아 등한시되는 경우가 있어요. 막연한 생각이지만 보호자들의 궁금증이나 의견들을 따로 작성할 수 있도록 해주는 매개체가 있으면 좋을 것 같아요." (R5)
▶PFCC실천을 위해 필요한 역량 및 교육	
1) 자신에 대한 인식	
'나'라는 존재를 성찰할 수 있는 관점	*"나 스스로를 잘 이해하고 받아들이는 게 필요한 것 같아요." (R1)* *"스스로를 좀 객관적으로 보는 눈도 필요한 것 같아요" (R3)* *"내가 제공한 간호를 객관적으로 평가하고, 개선시켜 나가는 게 필요하고…" (R1)* *"간호사가 자신의 역량을 잘 알고 장점은 개발하고 단점은 보완한다면 질 높은 간호 제공이 가능 할 것 같아요." (R3)* *"PFCC를 잘 수행하기 위해 환자의 치료 과정 전반에서 보조자의 역할이 아니라 가장 중요한 사람 중 한 명이라 생각하고…" (R7)*
자신의 신념, 가치가 돌봄에 미치는 영향을 인식	*"간호사의 신념과 가치관은 간호대상자에게 직, 간접적으로 영향을 미칠 수 있어서 간호사가 자기 신념이나 가치관에 대해 명확하게 인식하고 있는 게 필요하고…" (R1)* *"환자-가족중심간호에서 간호제공자인 나의 신념과 가치가 투영되는 부분이 크다고 생각하기 때문에" (R3)* *"저는 개인적으로 환자의 상태가 더 안 좋아지기 전에 미리 연명의향서를 작성하는 것에 매우 긍정적인 생각을 갖고 있어요. 환자의 여생의 삶의 질을 고려하였을 때도, 환자분께서 본인의 의사를 밝힐 수 있고 가족분들과 대화를 나눌 수 있을 때 죽음에 대해 준비할 시간들이 필요한데 실제 임상에서는 환자분의 의식이 소실되고, 이미 추가적인 치료가 환자의 일상생활로의 회복과 연관될 수 없다는 의료진의 설명에도 마지막 순간까지 환자의 죽음을 건강하게 받아들이지 못하는 보호자들 모습을 보면 안타까워요." (R3)*

환자, 보호자의 신념 및 가치와 조화를 이루는 유연성이 필요함	*"PFCC를 하다 보면 저마다 다른 신념과 가치관을 가진 환자와 보호자를 만날 텐데, 나의 신념과 가치가 흔들리지 않는 선에서 환자와 보호자의 신념과 가치를 우선시할 수 있는 유연함을 갖고 있어야(…)" (R7)* *"자신의 가치관을 앞세우기 보다 신념을 반영하는 것이 더 중요할 것 같아요. 환자와 보호자의 의사결정에 의료진의 가치관이 반영되는 것은 옳지 않지만, 환자에게 더 도움이 되는 결정을 하기 위해 의료진의 입장으로서 신념을 갖는 것은 필요하다고 생각해요" (R4)* *"중환자실에서 연명치료중단을 결정하는 과정에서 의사소통 할 때 객관적인 정보를 제공하되, 의료진의 입장에서 회생가능성이 없다고 판단되는 경우 가망이 없다는 듯한 표현을 섞어 (…) 중립적인 입장을 유지하며 가족과 상담하는 역량이 필요하다고 생각해요" (R5)*
2) 치료적 의사소통	
정보제공의 범위 결정에 대한 지원이 필요	*"정보제공이나 뭐 매뉴얼 같은 게 있으면 신규들도 엄청 편하지 않을까요? 저도 신규 때 어떻게 말해야 되나 해서 주변 선생님 불렀던 기억이 좀 많거든요. 이런 정보를 말해도 되는 거였구나 알았으면 안 어려웠을 것 같아요." (R5)* *"어떤 간호사들은 승압제 몇 가지 쓴다 이렇게 자세히 설명을 해주는 사람이 있잖아요. 근데 그 다음 날 가서 오늘은 승압제 몇 쓰나요? 이렇게 구체적인 질문을 하는 걸 보면 그럼 전 선생님도 이 정도까지 설명을 했으니 이 정도까지 해도 되나 이렇게 결국 자체적으로 보호자에게 정보 제공을 해도 된다는 그 기준을 저희가 자의적으로 정하고 있는 거잖아요. (…) 어디까지 내가 말을 해줘도 괜찮고 이 보호자가 받아들일 수 있을지…" (R4)*
환자와 가족이 이해 가능하도록 설명하는 능력이 요구됨	*"환자와 가족들의 의사결정을 돕기 위해, 환자의 상태에 대해 객관적이되 이해 가능하게 설명할 수 있는 능력과 관련된 교육이 필요하다고 생각해요." (R3)* *"가족들에게 전문지식을 비 의료인의 눈높이의 맞게 설명할 수 있어야 하고 환자와 보호자, 의료진들 사이에서 의견차이를 조율할 수 있는 대화 기술이 필요하다고 생각해요." (R1)* *"우리가 쓰는 전문 용어들을 가족들에게 설명해 주거나 아니면 환자 치료 과정을 얘기해줄 때 어려워하시잖아요. 가족들은 모니터도 보면서 빨간색이 뭐죠? 저게 혈압인가요? 이러는 경우가 있으니까 잘 풀어서 설명해 줄 수 있는 의사소통 능력이 되게 중요한 것 같고 그리고 또 전문 지식 같은 것도 쉬운 용어로 뭐 승 압제를 지금 몇 정도 쓰고 있다 이렇게 풀어서 얘기해 줄 수 있는 능력들이 필요한 것 같아요" (R2)* *"환자 치료 전반에 대한 이해와 의사소통 능력이 필요하다고 생각해요" (R7)*

환자나 가족의 가치, 요구도를 반영한 의사결정 지원	*"환자분이 젊은 사람이었는데 예후가 별로 좋지 않아서 뇌사 판정은 아직 안됐지만, 보호자분이 먼저 장기기증 말을 꺼내시더라고요. 환자가 원래 장기기증 하려는 그런 의사가 있었다. 사실 교수님도 말을 꺼내고 싶었지만 차마 말을 못 꺼내고 있었거든요." (R7)* *"환자나 가족 요구에 대한 조사가 필요할 것 같고…" (R1)* *"환자의 가족들에게 요구도를 사정하여 이를 반영하다는 것이 필요하다고 생각해요" (R3)*
공감 능력은 간호에서 기본이자 중요한 요소임	*"보호자들은 하루에 딱 30분 보러 오시는데 그 사이에 궁금한게 얼마나 많겠어요. 근데 저는 30분을 전부 보호자한테 할애할 수 없으니까 이따 설명해 드릴께요. 이렇게 하게 되고 ……그 가족들에게 공감해 주지 못하고 시간도 없다고 느낄 때가 저는 많거든요." (R1)* *"간호사의 공감 능력이 중요한 것 같아요. 나의 가족이라고 생각하고 조금만 마음을 쓴다면 더 나은 환자-가족중심간호를 수행할 수 있지 않을까 싶어요" (R4)* *"공감 자체가 형성이 잘 안되면 상대방의 행동을 이해 못하잖아요. 그래서 공감이 바탕이 되어야 행동도 나타나고 중요한 역량인 것 같아요" (R3)* *"뭔가 공감 능력이 있어야지 보호자랑 의사소통을 할 때 대화가 통하지 않더라도 보호자 입장에서 생각을 해볼 수 있어……공감이 중요한 것 같다고 생각합니다" (R5)*
공감을 효과적으로 표현하는 방법을 습득하는 것이 필요함	*"환자 가족들에게 실례가 되지 않게 공감하고 위로를 표현하는 방법에 대한 교육이 이루어지면 좋을 것 같아요" (R3)* *"짧은 시간에 효과적으로 할 수 있는 공감표현들에 대해 배울 수 있으면 좋을 것 같아요" (R2)*
4) 가족 참여	
조력자로서 중요한 가족	*"면회시간 때 보호자분이 환자분한테 한 번이라도 간호사 선생님들이 오늘 뭐 많이 할 건데 그거 열심히 하고 숨 쉬는 연습 잘해야 된다고 한마디라도 하고 가면 환자분들이 정말 열심히 해요. 그거 하나는 정말 진짜 잘하세요." (R3)* *"가스 아웃 안 되니까 엉덩이 들썩들썩 운동하라고 이제 말하면 이제 보호자가 그 얘기해 주면 하루 종일 이제 막 엉덩이 들썩들썩하고…" (R1)*

허용되는 범위 내에서 가족의 참여를 지지하기	*"보호자들이 충분히 할 수 있는 그런 부분에서 저는 환자한테 로션 발라 드리거나 (…) 손톱 발톱 너무 길면 다음에 손톱 깎기 갖고 와가지고 깎아 주시라. 저는 그런 약간 기본 기본적인 기본 위생 같은 거 알려드리고 (….) "(R1)* *"아들이 직접 교육을 폴리 넣는 법도 배워오고 suction 하는 방법도 배워와서 자기가 아버지가 살아 계실 때 불효만 끼쳤다고 생각을 해서 마지막 순간에 효도를 해야 된다고(…) 침습적인 거는 솔직히 좀 제지가 필요할 것 같긴 해요."(R3)*
환자 및 가족과의 치료 목표 및 계획에 관한 지속적 정보 제공의 중요성	*"뭔가 파트너십이 성립하려면 기본적으로 가족 분들도 환자의 상태에 대해 정확한 정보제공을 매일 꾸준히 받을 수 있어야 한다고 생각하거든요"(R3)* *"객관적인 입장에서 환자와 가족에게 객관적으로 선택지를 제공해야 한다고 생각하는데…"(R4)* *"최소 한 1분에서 3분 정도라도 오늘 뒤에 환자는 어떻고 치료 계획은 어떤 지를 간호사 주치의 보호자 그 다음 보호자와 다 같이 있을 때 물어보고 궁금하신 거 있으면 거 물어봐라 하고 대답하고(…)"(R3)* *"그리고 SBT(Spontaneous breathing trial) 같은 거 할 때도 숨쉬는 거 연습 잘하셔야 된다. 이렇게 얘기를 해주면 이제 환자도 자기의 치료에 대한 인사이트가 있고 의지가 있으니까 더 열심히 할 거고 그럼 당연히 좋은 결과를 기대할 수 있을 거라고 생각을 해서 정보 공유도 중요한 것 같고 같은 목표 가지고 서로 노력할 수 있는 의지가 있는 것도 중요한 것 같아요."(R1)*
5) 동료 간의 지지	
필수불가결한 나의 동료	*"저는 약간 동료한테 목숨 거는 타입이어서 예를 들어 내가 이 보호자랑 환자한테 한참을 시달리고 있어요. 근데 그러면 동기들이 와서 내 옆에 다른 환자 Vital을 도와 준다던지 난 지금 여기서 하고 있는 일이 있는데 보호자가 응대를 요구한다 그러면 차지 선생님이나 다른 선생님들이 응대해 주시기도 하잖아요. 그런 거 필수적이라 생각해요."(R1)* *"동료 간에 서로에 대한 신뢰와 협동심이 가장 중요한 것 같아요. 중환자실에서 일하면서 혼자 일하는 것과 함께 서로 도움을 주며 일하는 것은 업무부담, 체력 소모에 있어 굉장히 큰 차이가 있어요. 서로 서로 도와가며 일을 하면 어렵고 시간이 오래 걸리는 업무도 빠르게 해결할 수 있고 성취감도 크거든요." (R4)* *"도움을 요청할 수 있는 동료가 있다는 건 정말 든든한 거죠"(R2)*

	“동료끼리 서로 도와가며 일을 하면 어렵고 시간이 오래 걸리는 일도 빠르게 해결 가능하고 성취감 또한 크다고 생각해요”(A4)
경험 공유를 통한 동료간 학습과 지지의 중요성	*“서로 간에 환자-가족중심간호수행을 위해 동료 지지는 중요하다는 이런 걸 간호사가 인식할 수 있게 해주는 것만으로 교육의 효과는 충분할 것 같고”(R3)* *“저희 동료들끼리 서로 경험담을 공유하는 게 엄청 도움이 될 때가 많아요”(R5)* *“저는 간호사들이 자신들의 사례에 대해서 얘기를 해주면 되게 서로서로 이렇게 배우는 게 되게 좋을 것 같아요.”(R2)*

Appendix 8. The preliminary education program

PCN Domain	Sub-domain	Contents		Details
Prerequisites	Professional competency	• Expertise in nursing knowledge and skills • Knowledge and understanding of PFCC • Motivation for implementing PFCC • Integration in practice		• Knowledge and understanding of PFCC 1) definition, effects, facilitating, barriers. 2) Watching related video. • Effects of practicing PFCC in the ICU: 1)patients 2) families 3) healthcare provider • The needs for training to enhance competence in PFCC • Practice applying PFCC through case studies
	Knowing self	• Understanding oneself (emotions, attitudes, capabilities) • Reflecting on one's own actions		• Understanding the concepts of knowing self, clarity of values and beliefs, commitment to the job 1) Definition, importance of each concept in PFCC 2) Watching related videos • Sharing experiences and reflecting on challenges in practicing PFCC in ICU based on clinical experiences.
	Clarity of values and beliefs	• Recognizing the impact of one's beliefs and values on care		• Exploring and sharing personal beliefs or values related to PFCC
		• Ability to harmonize personal values and beliefs in clinical settings		• Strengthening the ability to align personal values with clinical practice. Q: What causes gaps between personal values and clinical nursing practice? What strategies can be implemented to bridge those gaps?
	Commitment to the job	• Maintaining balance between passion for the job (desire to perform PFCC) & pressures from other roles		• Balancing passion for practicing PFCC with the pressure of other roles. : Exploring ways to maintain this balance through case study & role-play.
	Interpersonal skills	Communication	•Communication with patients unable to vocalize	• Understanding therapeutic communication skills. 1) Definitions, preconditions, attributes, and outcomes. 2) Therapeutic vs. non-therapeutic communication (watching videos) & quiz time. • Enhancing communication skills with patients on ventilators. 1) Using a clinical decision pathway to assess cognitive and motor abilities of patients. 2) Using 'low-tech' communication strategies based on patient capabilities.
			•Awareness of one's role when communicating with families	• Understanding the role of nurse in communication with families. 1) What is the nurse's role in communication with families?

			• Competence in maintaining therapeutic relationships with families through effective communication	2) Using Facilitated Sense-Making (FSM) Model: Recognizing the nurse's role as a facilitator, information provider, therapeutic relationship builder, decision-making guide, and motivating active communication. • Understanding challenges ICU nurses face in communicating with families. 1) Introducing challenges nurses perceive during communication with families. 2) Providing opportunities for participants to freely discuss these challenges • The ability to evaluate the overall framework of nurse-family interaction. • Strategies for therapeutic communication with families: 1) Sharing experiences of positive responses in relationships with patients' families. 2) Supporting nurses in finding their own methods. 3) Introducing ward-specific guidelines or checklists for providing information to families. 4) Role-playing through case scenarios.
		Empathy	• Understanding empathy	• Understanding empathy: 1) Components of empathy: cognitive, emotional, and expressive. 2) Five steps of the cyclic empathy model.
			• Ability to express empathy	• Efforts to enhance empathy skills in ICU settings. • Practicing empathy based on scenarios
		Collaboration	• Skilled communication techniques, including information provision • Promoting family involvement competence in facilitating SDM	• Ability to monitor and guide patient or family participation based on their preferences. 1) Understanding family needs and preferences for participation. 2) Introducing types and methods for families to engage in critical care. 3) Providing appropriate education to families. • Understanding the concept and process of Shared Decision-Making (SDM): 1) Definition and key concepts of SDM, including watching related videos. 2) Providing information to encourage patients and families' participation in decision-making: BRAN (Benefits, Risks, Alternatives, Nothing). 3) Introducing tools that support family decision- making. • Training through role-play for real-world application.
■ Care environment	Physical environment	• Management of ICU structure, facilities, and environment		• Enhancing the ability to evaluate and appropriately adjust the physical environment
	Supportive organizational system	• Support from colleagues		• Understanding the concept, attributes, and outcomes of peer support. • Practicing peer support through scenario

Appendix 9. Modified contents based on the first expert validation

PCN domain	Sub-domain	1차 타당도 교육프로그램 내용	CVI	전문가 의견	수정 및 보완한 내용
전제조건	전문적 역량	1. PFCC에 대한 이해 1) 정의, PCN (Person-centered nursing)theory 기반 주요 개념 소개 2) 동영상 시청	1.0	• PCC와 PFCC차이가 무엇인지? PCC 이론을 기반으로 교육과정을 구성하였으나 PFCC로 명명하고 있어서 두 개념 PCC이론을 기반으로 구성한 간호사의 전제조건이 PFCC에도 동일하게 적용가능한지에 대한 고민필요 • 일반 간호사의 수준에서 PFCC 개념이 모호하게 느껴질 수 있으므로, 개념에 대한 brainstorming이나 mind map 활동하고, 서로 공유한 후 정확한 PFCC 개념을 설명하는 것에 대한 의견	• PFCC에 대한 이해에서 PFCC와 PCC와의 관계, PFCC는 환자가 가족 시스템에 포함되어 있으며, 때때로 가족이 중환자실에서 환자를 대변해야 하기 때문에 PCC는 Critical한 setting에서 PFCC를 포함한다는 내용에 대한 설명을 추가함 • 의견 주신 부분 반영하여 재 고찰한 결과 PFCC 개념분석 연구를 통해 도출된 속성(협동, 정보제공에 초점을 맞춘 의사소통, 존중, 공감) 및 IPFCC에서 제시한 핵심 개념(존중, 정보제공, 참여, 협동)들이 PCN이론에 포함되어 있으며 PFCC는 PCN이론과 그 철학적배경을 같이하고 있어 적용할 수 있을 것으로 사료됨 • PFCC에 대한 Brainstorming내용 추가함 (내가 생각하는 PFCC란 무엇인가?)
		2. 중환자실(ICU)에서 PFCC수행 효과 1) 환자 2) 가족 3) 의료진	1.0	• 환자, 가족, 의료진 측면 외 시스템 측면에서의 효과 고려 필요성	• 의료자원 측면을 추가함
		3. PFCC수행에서의 간호사 역량 증진을 위한 교육 필요성, 수행 동기부여	0.86	• 1, 2번 항목과 중복 • 환자나 가족의 이야기를 듣는 것의 중요성, 환자와 가족 중심의 관점을 고려해보는 것의 중요성(필요성), 가족의 역할, 가족 역할의 중요성에 대해 다루는 것	• 기존 내용 삭제 • 중환자실에서의 가족의 중요성, 가족 요구에 대한 의료진의 인식 및 가족의 역할, 가족 참여에 대한 나의 인식을 확인하고 공유해 보는 것으로 수정함
		4.ICU에서 PFCC수행 촉진/방해하는 요인에 대해 문헌 기반 소개 & 탐색 1) 촉진 2) 방해 요인	1.0	• 촉진과 방해 요인을 개인적, 조직적 수준으로 나누어서 고려해 보기 • 개인 차원에서 조정 가능한 요인과 조정 불가능한 요인을 나눠보는 활동을 하고, 조정 가능한 요인에 대해 자기성찰을 할 수 있도록 할 것으로 권유	• PFCC실천의 촉진, 방해 요인 : 개인적, 조직적 수준으로 나누어서 구성 • PFCC실천의 촉진, 방해 요인에 대해 살펴본 후 ‘내가 생각하는 PFCC수행 촉진 or 방해 요인은 무엇인지, 조정 가능 VS 불가능한 요인으로 분류 “실천하기 힘들었던 경험, 혹은 실천을 잘 했던 경험”에 대한 Brainstorming실시에 대한 내용을 추가

	5. 실제 경험과 사례를 바탕으로 임상에서 PFCC를 잘 실천할 수 있는 전략 마련 예)섬망이 있는 환자와 의사소통	1.0	• 예시 제안: 인공호흡기 적용 중인 환자와의 의사소통 • 환자의 진단 치료, 치료 계획에 대한 간호사의 전문적인 지식으로 많은 양의 정보가 포함되어야 할 것으로 사료 • 먼저 PFCC의 모범 사례에 대해 공유하고, 검토하며 논의하는 시간이 사례를 통해 PFCC를 개념적으로 잘 이해하는데 도움이 될 수 있을 것 같음. 이후에 본인이 경험한 사례, 혹은 문제 사례, 예시 사례 등을 토의해보는 것을 추천	• 중환자실에서의 PFCC적용의 모범사례 추가함(김oo 환자 Case를 기반으로) • 간호사가 가족들에게 제공하는 의학적인 지식과 관련된 부분은 간호사로서 어찌 보면 당연하게 여겨지는 부분이라 할 수 있으며 간호사 대상으로 병원차원에서도 교육 간호사 등을 통해 이루어지지 부분이라 이 교육프로그램에서는 다루지 않음, 하지만 문헌을 기반으로 간호사들은 가족들이 어떠한 정보를 원하고 의료진이 제공하는 정보와 가족들이 원하는 정보가 다를 수 있다는 점, 간호사들 인터뷰 내용을 바탕으로 상황에 따른 효과적인 가족들에게 정보를 제공해 주는 것을 group discussion과 role-play활동을 통해 학습하고 연습해 볼 수 있도록 3회기 파트에 내용을 구성함
자기인식	1. PFCC에서 자기인식, 자신의 신념과 가치의 명확화, 직업에의 헌신에 대해 이해하기 1) 각 개념의 정의, 특징, PFCC수행의 중요성 2) 동영상 시청	1.0	-	-
	2. 실무자로서 PFCC 수행(이론에서의 process를 중심)과 관련된 자신의 신념이나 가치에 대해 탐색 및 공유 질문:1) 환자의 가족이 중환자실에서 환자와 함께 있기(Presence) 2) 가족의 환자 care 참여(Participation) 3) 환자와 가족과 협동/파트너십 -> 위의 중재들은 PFCC 수행에서의 과정에 해당하는 내용들이다. 이와 관련하여 자신의 신념, 가치는 어떠한가?	1.0	• 나는 어떤 간호사인가? 나는 환자와 가족을 어떻게 생각하는가? 나는 환자와 가족과 어떻게 소통하고 있는가? 등 넓은 범위에서 질문을 던져도 좋을 것 같음	• 간호사로서의 자신, 임상에서 과거 경험, 자신의 감정, 태도에 대해 좀 더 넓은 범위에서 인식할 수 있도록 질문을 수정함 1) “나는 어떤 간호사인가? 간호사 로서의 강점, 약점은 무엇인가?”(간호사로서의 나) 2) “임상에서 어떠한 상황들이 나의 감정조절을 힘들게 하는가? 내가 느끼는 감정은 무엇이며 어떠한 태도를 보이는가?” (자신의 감정, 태도 인식)

	3. ICU에서의 임상경험 바탕으로 PFCC 실천하기 어려웠던 경험에 대해 공유 및 자기성찰, 반성의 시간 갖기 ♣ 질문: 중환자실에서 실제 경험한 사례 중 PFCC를 실천하기 어려웠던 경험 혹은 나누고 싶은 경험이 있다면 무엇이 있을까요?	1.0	• 간호사 입장에서 생각해보면, 1) 개념에서 그룹 토론 시 나올 수 있는 내용과 구분이 잘 되지 않을 수 있을 것 같음, 교육자 측면에서 적절한 장치(토론 방법, 토론 범위 명확한 제한 등)가 필요 • 어려웠던 경험에 대한 반성적 성찰 뿐만 아니라 실천을 잘 했던 사례에 대한 성찰과 공유도 도움이 될 것 같으므로 어려웠던 경험에만 포커스 된 느낌이 들지 않도록 질문하거나 진행하는 것은 어떨지에 대한 의견	• 이 부분에서의 질문은 전문적 역량 domain에서 자신이 생각하는 PFCC수행 촉진, 방해 요인에 대해 공유하고 실천하기 힘들었던 경험, 혹은 실천을 잘 했던 경험에 대해 이야기 나누는 것으로 수정, 보완함 (전문적 역량 4. 참조)
자기의 신념과 가치의 명확화, 직업에의 헌신	1. 개인적 신념과 가치 vs 실제 임상 수행 사이의 일치 정도를 탐색하기 ♣ 질문: 개인적 신념과 가치 vs 임상에서 간호 수행 사이 gap이 발생한다면 그 이유는 무엇일까요? 또한 gap이 있다면 이를 좁힐 수 있는 방안은 무엇이 있을까요?	1.0	• 조직에서 PFCC를 위해 활용 가능한 자원이 무엇이 있을지 탐색하고 조사하는 것에 대한 필요성	• PFCC수행을 위해 개인적 수준에서의 자기인식, 노력, 헌신뿐만 아닌 조직차원에서의 신념과, 가치, 지원 등을 포함한 조직문화를 인식, 평가할 수 있는 역량이 중요하다는 내용과 전문가 의견을 바탕으로, 환자중심 조직문화에 대해 알기, 조직에 대해 평가해 보기, 강점과 약점에 대해 함께 공유하는 것으로 수정함
	2. PFCC수행 vs 업무로 인한 압박 사이에서 균형 찾기 (유지) 사례를 중심으로 둘 사이 균형을 유지할 수 있는 방안에 대해 탐색/역할극 실시(2인 1조) & debriefing 예) ventilator care받고 있는 환자가 지속적으로 입을 축여 달라고 요구	1.0	• '자기인식', '자신의 신념과 가치의 명확화', '직업에의 헌신'이 따로 큰 틀에서 분리되어 있는데, 세 가지 큰 주제들이 함께 합쳐도 무방할 것으로 보임	• 각 개념들에 대한 정의와 PFCC와의 관련성에 대해서 설명하되 전문가 의견에 따라 한 회기에 이러한 내용을 함께 교육하는 것으로 구성함

환자 및 그 가족과 효과적인 의사소통을 수행할 수 있는 역량 1) 환자와의 의사소통	1. 환자와의 치료적 의사소통 능력 증진을 위한 노력 1) 치료적 의사소통 능력에 대한 이해 (치료적 의사소통능력 개념분석연구: Xue & Heffernan, 2021): 정의, 선행 요인, 속성, 결과 2) 치료적 vs 비 치료적 의사소통 (동영상 시청) & Quiz time	1.0	• 치료적 의사소통 기술을 습득할 수 있는 교육적 요소가 필요 • 예시로 제시해준 객관식 퀴즈도 좋을 수 있겠으나 상황을 제시하고 해당 상황에서 어떻게 이야기할 것인지를 직접 작성해보거나 발표해 보거나 하는 방법도 좋을 것 같음	• 치료적 의사소통 기술습득을 위한 교육적 요소를 포함 : 상황을 제시하고 상황에 맞게 어떻게 반응하는 것이 치료적 의사소통에 해당하는 것인지에 대한 교육내용으로 수정 및 보완함
	2. Ventilator 갖고 있는 환자와의 효과적인 의사소통을 위한 간호사의 역량 증진 1) Clinical decision pathway (ex. algorithm)을 활용하여 환자의 인지, 운동 능력 사정하기 2) 환자의 인지적, 운동 능력에 따른 의사소통 및 '저기술' 의사소통 전략의 사용	1.0	• 'ventilator 갖고 있는 환자~ '대신 '인공 기도로 인해 발성이 불가능한 환자와의 효과적인~'이 어떨지에 대한 의견 • 중환자실에서 환자와의 의사소통이 왜 중요한지, 환자와의 의사소통이 잘 이루어졌을 때의 outcome을 함께 확인할 수 있는 내용을 추가하는 것에 대한 의견	• '인공 기도로 인해 발성이 불가능한 환자와의 효과적인 의사소통을 위한 간호사의 역량 증진' 으로 수정함 • 치료적 의사소통능력에 대한 이해, 개념분석연구에서 다루어질 내용임,
2)가족과의 의사소통	1. 가족과의 의사소통에 대한 간호사 자신의 역할인식 1) 가족과 의사소통 시 간호사의 역할에 대한 인식은? 2) Facilitated sense-making model(센스 메이킹 촉진 모형) : 간호사의 촉진자, 정보제공자, 치료적 돌봄 관계 형성, 의사결정유도자 역할 등의 중요한 영향력을 인식하고, 적극적으로	1.0	-	-

의사소통을 수행할 수 있도록 동기부여			
2. 중환자실 간호사들의 가족과의 의사소통 경험 및 어려운 점 파악 1) 간호사가 가족과의 의사소통시 challenges 파악 (1) 간호사가 가족과 의사소통 시 인식된 어려움 소개 (2) 참가자들에게 자유롭게 이야기할 수 있는 기회 제공	1.0	-	-
▶병원에서 가족중심간호를 위한 간호사의 역량 관련 연구 3. 간호사의 가족의 전반적인 체계에 대해 평가하는 능력 필요 1) 가족의 구조, 기능에 대한 평가 2) 가족의 감정, 요구 및 선호도를 파악 3) 현재 환자의 질환, 치료, 예후 등과 관련하여 제공받은 정보 혹은 알고 있는 지식 사정	0.86	• 간호사들이 실제 업무를 수행하면서 평가까지 수행하는 것이 가능할지 • 중환자 가족들의 입장에서 감정, 요구, 선호도가 어떠한지, 가족들이 의료진과의 의사소통에서 경험하는 어려움, 중환자 치료과정에서의 가족 요구는 무엇인지에 대해서 다루는 것이 중요하다는 의견	• 간호사의 가족의 체계에 대해 평가하는 역량 삭제 • 가족의 입장에서 의료진과의 의사소통 시 어려움이나 경험, 가족의 요구 등이 무엇인지에 대해 다루는 내용으로 수정, 보완함
4. 가족과의 치료적인 의사소통을 위한 전략 (Krimshtein., 2011; Jin et al. 2022) High-quality nurse-family education 1) 가족과의 관계에서 긍정적 반응을 불러일으켰던 경험 공유 2) 간호사 스스로 자신만의 방법을 찾을	1.0	-	-

	수 있도록 돕기 (예: 환자 상태에 대해 매일 update된 정보제공, 가족에게 질문할 수 있도록 허용, 기본적인 care기술을 가족에게 교육하기 등)			
	3) 가족들에게 정보 제공 시 활용할 수 있는 병동 단위 별 가이드라인 or Check list에 포함 될 수 있는 내용을 소개 4) 사례를 통한 role-play 예) Unplanned ICU입실 상황에서 가족의 중환자실 첫 면회 상황	1.0	• 중환자실이므로, DNR 환자(또는 말기환자) 및 가족과의 효과적인 의사소통에 대해서도 언급이 필요해 보임 • 중환자 가족 정보 제공에 대한 guideline에는 상황 별 예시 대화 script 제공이 도움이 될 것 같음.	• 사례에서 말기 환자를 둔 가족과의 의사소통에 대한 상황을 포함 • 가족들에게 정보제공에 대한 guideline 혹은 checklist 제공에 대한 내용은 상황을 제시하고, 먼저group간의 discussion을 통해 어떠한 정보들이 제공될 수 있을지 의견을 나눠보고 함께 목록화 해보는 연습 기회를 제공, 그 이후 discussion에서 함께 공유하는 내용으로 수정, Discussion후 대화 script제공 예정
대인관계 기술 (2)공감 역량	1. 공감에 대한 이해 1) 공감의 구성요소: 인지적, 정서적, 표현적 2) 순환적 공감 모형: 순환적 공감 모형 5단계	1.0	-	-
	2. 중환자실에서 공감 기술 증진을 위한 노력 1) 인지적, 정서적 (1) 순환적 공감 모형에서 공감적 공명 (2) 그룹 활동 2) 표현적 요소 (1) 공감적 의사소통 언어적/비언어적 접근 방법 (2) 유형별 공감, 수용 기법	1.0	-	-

	3. 사례를 통한 공감 표현훈련하기 (간호사들이 공감하기 힘든 특정 사례 및 경험을 기반으로 role play & debriefing)	1.0	-	-
간호사-환자 및 가족과의 협력 (collaboration)	1. 환자나 가족의 선호도에 따라 참여를 촉진, 지도, 모니터링 할 수 있는 능력 1) 가족 참여에 대한 요구도/선호도 파악 2) 가족이 참여할 수 있는 care종류 및 방법 소개 3) 가족에게 적절한 교육 제공	1.0	• 중환자실 입실 시/중환자실 재원 중/전실 예정/3단계로 나눠서 시기별로 가족과의 파트너십을 위해서 어떤 정보를 제공하고 어디까지 care가능한지 등을 논의해보는 것도 좋을 것 같다는 의견	• 3회기 대인관계 역량 관련 교육 중 중환자실에 가족중심의 정보제공을 위한 실천적 전략 관련 부분에서 문헌을 통해 다루어질 예정임 (입실 당일, 입원 중, 전동 당일 정보제공 관련 내용)
	2. Shared Decision-making (SDM)의 개념과 과정을 이해 1) SDM의 정의, 핵심 개념, 동영상 시청 2) 환자/보호자에게 의사결정 참여 촉진을 위한 정보제공능력: BRAN (Benefits, Risks, Alternatives, Nothing)에 맞게 정보를 제공할 수 있는 능력 3) 가족들의 의사결정 지지하는 tool소개 (1)Patient Decision Aids 개념, 장점 (2) Decision aids in ICUs	1.0	-	-

		3. role play 실시 예1)중환자실에서 심각한 상태의 환자를 대신해서 가족이 향후 치료 방향을 결정해야 하는 상황에서의 의사소통 2) 동영상을 통한 사례 소개	1.0	-	-
돌봄 환경	물리적 환경 소음, 냄새, 조명 등	1. PCC 이론에서의 Work environment 1) Physical environment을 평가하고 적절하게 조절하는 능력 (1) 소음, 냄새, 조명 등의 임상 환경 평가 (2) PFCC를 위한 ICU 환경 중재 소개	1.0	• 평소 중환자실의 환경 개선에 대해 관심이 많기 때문에 이 내용에 동의 • PFCC를 위한 ICU 환경 중재 소개 외에도 사진을 활용하여 환자, 가족 중심의 환경을 제공하고 있는 상황을 간접적으로 접해보는 것도 좋을 것 같음. PFCC를 잘 나타내는 사진 한 장이 더 큰 의미로 다가올 수도 있음 예)병원 내 PFCC를 증진할 수 있는 공간에 대한 소개 • 라디오나 음악을 켜두는 환경도 중환자실에서는 "편안함"을 증진 시키기 위한 전략으로 간호사가 많이 사용함. "소음"이라고 부정적으로 표현하면, 음악적 중재 요소가 포함되기 어려울 수 있음.	• ICU environment중재에 대한 소개와 더불어 환자중심 설계에 대한 관련연구를 사진과 함께 소개 추가 • 중환자실에서의 '소음'은 환자의 수면을 방해하고 심리적으로 불안한 상태와 섬망을 초래하는 등 안위와 회복에 부정적인 결과를 초래하는 의미로 표현(Yun et al., 2020): 전문가 의견에 따라 라디오나 음악을 켜두는 환경은 편안함을 증진시키기 위한 전략으로 제시하여 이러한 음악적 중재 요소가 소음으로 여겨지지 않도록 교육내용에 반영함. Yun SH, Choi HY, Lee SH, Peck EH, Yoo YS. Noise Level by Type in Adult Intensive Care Units of a Tertiary Teaching Hospital in Korea. Korean J Adult Nurs. 2020 Feb;32(1):19. https://doi.org/10.7475/kjan.2020.32.1.1
	동료 지지	2) Effective staff relationship (1) 동료 지지의 개념 및 속성, 결과 (정서,정보,평가지지) (2) 동료 지지를 주고 받은 경험 공유 (3) 간호사-간호사 간 의사소통 향상전략 (4) role play & practice (정서, 정보, 평가 지지)	1.0	• 국내 의료환경에서는 타 의료진(esp.의사)과의 협력과 관계, 소통 방법도 PFCC 수행에 영향을 미칠 것을 사료됨.	• 협력에는 타의료진과의 협력을 포함하고 있음, 타의료진과의 협력, 소통 방법에 대한 부분은 타의료진과의 갈등 상황, 의사소통 방법 등 다른 차원에서의 접근이 필요할 것으로 사료되어 현재 교육프로그램에서는 간호사들 간의 협력에 초점을 맞추어 내용을 구성함

Appendix 10. Modified contents based on the second expert validation

PCN domain	Sub-domain	Contents	2차 타당도 교육프로그램 내용	CVI	전문가 의견	수정 및 보완 내용
전제조건	전문적 역량	• 간호학적 지식, 기술에 대한 전문성 (PFCC를 위한 전문적 역량에 해당되나 병원에서 중환자실 간호사를 대상으로 지속적인 교육이 제공되는 영역 & 범위가 너무 광범위하여 제외함) • PFCC에 대한 전반적 이해 & 지식 • PFCC실천에 대한 동기부여 • 실무에서의 적용	1. PFCC에 대한 이해 1) Brainstorming 내가 생각하는 PFCC란 무엇인가? 2) 정의, 주요 개념 소개, PCN(Person-centered nursing) theoretical framework 기반으로 간호사에게 필요한 역량 소개 3) 동영상 시청 (Understanding patient-centered care)	1.0	-	-
			2. PFCC수행에 따른 효과, 수행 촉진/방해 요인 1) 효과: 환자, 가족, 의료진, 의료자원 측면 2) 촉진, 방해 요인: 개인적, 조직적 수준 3) 내가 생각하는 촉진, 방해 요인은 무엇인가? 이러한 요인들을 조정 가능 vs불가능 요인으로 분류해 본다면?	1.0	-	-
			3. 중환자실에서의 가족 역할의 중요성, 중환자실 가족의 요구(문헌 소개), 가족의 역할, 가족 참여에 대한 나의 인식 공유	0.86	• PFCC에 대한 이해 부분에 가족 역할 부분이 중복되는 것에 대한 의견	• PFCC이해부분에서는 정의, 개념, 수행 효과 등의 측면을 제공하는데 초점을 두고 있어 유지
			4. 중환자실에서 PFCC적용의 모범사례 제시 사례) 심근경색으로 응급실 통해 중환자실에 내원한 환자와 보호자에게 PFCC적용의 모범사례제시 (PCN framework에서의 care process기반으로)	1.0	-	-
			5. PFCC 실천을 위한 실전 훈련 1) group discussion 사례 1. 김씨(M/65)는 Lung cancer(폐암)로 진단받고 Rt pneumonectomy(우측 폐 전 절제술) 수술 후 post op care를 받고 병동으로 전동 갔다. 병동에 전동 간 지 이틀째 갑자기 39도의 고열과 함께 호흡곤란을 호소하였고 facial mask를 통한 고농도의 산소주입에도 불구하고 상태 호전이 없어 급하게 중환자실로 다시 이송되었다. 담당 간호사는 전동 온 환자에게 각종 monitor를 위한 장비들을 부착하고 환자의 활력 징후를 측정, 의식 상태를 확인하는 등 전반적인 환자 상	1.0	• 전문적 역량의 'PFCC 실천을 위한 실전훈련' 에서 사용된 1번 예시와 대인관계 역량의 '중환자실 가족과 의사소통의 실전연습'	• 앞에서 제시한 모범사례적용 예시를 기반으로 다음의 사례를 PCN theory에서의 PFCC care process 항목에 맞게 PFCC중재를

	태를 평가하였다. 기관내 삽관이 이루어졌고 승압제 투여가 시작되었다. 그리고 환자 보호자(아내)를 처음 면회시켜주는 상황이다. A. 환자의 아내: (다소 격양된 말투) *"저희 남편 상태는 좀 어떤 가요? 갑자기 이게 무슨 일인지 모르겠네. 입에 있는 관은 언제까지 갖고 있어야 돼요? 우리 남편 추위 잘 타는데 손, 발이 얼음장 같네..."* B. 간호사:		예시 간 차이 점을 명확히 알기 어려움.	적용해볼 수 있도록 구체적 Direction제시
	2) Role play & Self- reflection 사례 2. 간이식을 받고 중환자실에서 post op care를 받고 있는 이씨(F/62)는 각종 약물이 중심 정맥관을 통해 주입 중이다. 산소는 NP (비강케뉼라)을 통해 5L가 제공되고 있으며 의식 수준(GCS)은 3/3/6으로 부르는 소리에 눈을 뜨고 "000시 맞으세요?" 라는 질문에 "응? 뭐?" 라고 묻는다. "손잡아보세요." 라는 의료진의 지시에 손은 잡지만 일관적이지는 않다. 환자는 몸에 있는 여러 line들을 만지작거리며 불안한 모습을 보이고 있으며, 담당간호사는 self-removal등 안전에 위협이 될 가능성이 높다고 판단하여 양팔에 억제대를 적용하였다. 그러자 환자가 더 안절부절못하고 격한 반응을 보이며, "여기가 어디야?" "내가 왜 여기 있어? 나 빨리 집에 가야 하는데 신발 좀 줘" "이것 좀 풀어줘" 라는 말을 반복하면서 지속적으로 소리치고 있다. A. 환자: *"여기가 어디야?" "내가 왜 여기 있어? 나 빨리 집에 가야 하는데 신발 좀 줘" "보호자 전화 좀 해줘"* B. 간호사:	1.0	-	-
▶ 1회~6회기 공통 적용	•교육 마지막 단계에서 활동지를 활용하여 Action plan작성 : 해당 회기에 학습한 내용을 토대로 임상에서 실천을 위한 목표, 실천할 수 있는 행동 전략 수립 •Take home message (요약 및 중요내용정리)를 통해 오늘 학습한 내용 최종 마무리	1.0	-	-
▶ 2회~6회기까지 공통 적용	교육 시작 시 지난 시간 설정한 Action plan을 토대로 임상에서 PFCC실천 경험에 대해 공유하기	1.0	-	-

자기 인식 & 가치와 신념의 명확화 & 직업에의 헌신	자신에 대한 이해, 자신의 행동에 대한 성찰, 자신의 신념, 가치가 돌봄에 미치는 영향 인식	1. PFCC에서 자기인식, 자신의 신념과 가치의 명확화, 직업에의 헌신에 대한 개념적 정의, PFCC 수행과의 관련성 2. PFCC 실무자로서 자신에 대한 탐색 & 함께 공유 1) 동영상 시청: self-awareness improves patient centered care 2) 자신에 대한 탐색 (1) 나는 어떤 간호사인가? 간호사로서 강점과 약점은 무엇인가? (간호사 로서의 나) (2) 임상에서 어떠한 상황들이 나의 감정조절을 힘들게 하는가? 그럴 때 나의 태도는 어떠한가? (자신의 감정, 태도에 대한 인식)	1.0	-	-
	자신의 가치와 신념을 임상에서 조화시킬 수 있는 역량	3. 자신의 신념과 가치를 임상에서 조화롭게 수행할 수 있는 역량 (1) 적용 가능한 예시 소개 (2) 중환자실에서 간호사의 실제경험을 기반으로 Group discussion 사례 1) COVID-19 pandemic 상황에서 중환자실 면회가 전면 중단된 상황이다. 임종 직전의 환자의 가족들만 면회가 허용되고 있다. 평소 원칙을 반드시 지켜야 하며 모두에게 일관되게 적용되어야 한다는 가치를 가진 간호사 A는 한 환자의 보호자가 목사님을 모시고 와서 기도를 해주고 싶다고 한다. 환자 조xx(M/72)씨는 현재 CVA (Cerebral vascular attack)으로 인한 Brain death 상황으로 의식 수준(GCS)은 E1M1(외부자극에 전혀 반응 없고 눈도 뜨지 않는 상태)이며 인공호흡기를 통해 생명유지치료를 받고 있는 환자이다. 평소 환자는 신실한 기독교인이고, 보호자는 언젠가 마지막 순간이 올지 모르기 때문에 종교의식을 통해 위안을 받고 싶다고 이야기한다. 간호사 A는 이 요청을 어떻게 처리해야 할지 고민이다. <토론 질문> 담당간호사라면 어떤 결정을 내리겠습니까? 이와 유사한 상황을 경험한 사례가 있다면 공유해 주시겠어요?	1.0	-	-
	직업에 대한 헌신과 일의 압박사이의 균형유지	4. Role-play & Self-reflection 사례 2) 중환자실에서 aggravated pneumonia로 김oo(F/67)씨는 ventilator care를 받고 있다. 환자의 의식상태는 자발적으로 눈을 뜨고 “손들어보세요 손잡아보세요” 등의 의료진 지시에 잘 따르는 GCS score 4/E/6이다. 양 팔에는 억제대가 적용되었고 팔다리의 Motor power는 Grade III(중력에 저항에	0.86	• 직업에 대한 헌신에 대한 사례인지 재고가 필요	• 용어의 변경: PFCC수행에 대한 열정과 일의 압박사이의 균형 유지

		서 들어올리는 상태)이다. 오늘도 지속적으로 침대 난간을 치며 입을 축여 달라는 gesture를 통해 갈증을 해소해 줄 것을 요구한다. 담당 간호사 양xx는 day출근을 했고 방금 환자 침상 목욕을 마친 상태이고, 환자의 아침 lab결과에 따라 오더가 추가되고 있는 상황에 분주하다. 환자의 요구대로 입을 축여 주었는데 눈이 마주칠 때마다 계속해서 요구하고 있는 환자에게 다가간다. A. 환자: (팔다리가 묶인 채 난간을 치며 입을 벌리는 gesture를 취한다.) B. 간호사:			
	조직차원의 지지	5. PFCC수행을 위해 내가 속한 조직이 환자중심간호 실천에 적절한지에 대한 인식하고 평가할 수 있는 역량이 필요 1) 환자중심조직문화에 대해 알기 (인식하기) : 조직문화의 역할 및 중요성 2) 조직문화 측정도구를 활용하여 자신의 조직 평가 : 환자중심간호문화 측정도구(Patient-Centered Nursing Culture Scale) 활용 (경영진 리더십, 병원의 정책과 절차, 교육체계, 중간관리자리더십, 지지적 팀워크, 간호근무환경) 3) 조직의 강점과 약점, 개선 방향 등: Group discussion	1.0	-	-
대인관계 역량 (1) 의사소통 역량	발성이 불가한 환자와의 의사소통	1. 치료적 의사소통(Therapeutic communication)에 대한 이해 1) 개념적 정의, 선행 요인, 속성, 결과 2) 치료적 의사소통 (동영상 시청) 3) 치료적 의사소통 유형 & 유형별 의사소통 방법 & Quiz time (2-3문제) 함께 풀어 보기	1.0	-	-
		2. 인공 기도로 인해 발성이 불가능한 환자와의 효과적인 의사소통을 위한 간호사의 역량 증진 1) Clinical decision pathway (algorithm)을 활용하여 환자의 인지, 운동 능력 평가하기, 동영상시청 2) 환자의 인지적, 운동 능력에 따라 의사소통 도구 선택(단어 및 그림 의사소통 판, 필기도구, Vida Talk app 소개)	1.0	-	-
	가족과 의사소통 시 자신의 역할에 대한 인식 확인 & 동기부여	1. 가족과의 의사소통에 대한 간호사 자신의 역할에 대한 인식 (1) 가족과의 의사소통 시 간호사의 역할에 대한 인식: 참가자들이 공유할 수 있도록 격려, 이와 관련된 문헌 소개 (2) 간호사의 중요한 역할에 대한 인식 증가 및 동기	1.0	-	-

	부여: 센스 메이킹 촉진 이론 (Facilitated sense-making model, FSM)소개			
가족과의 치료적 관계 유지 역량 (Open communication & 불확실성 다루기)	2. 가족에 대한 이해 1) 가족입장에서의 의료진과 의사소통 경험, 어려움 2) 중환자실에서의 정보제공의 특징 & 의료진이 제공하는 정보와 가족이 원하는 정보차이	1.0	-	
	3. 중환자실에서 불확실성 다루기 위한 정보제공 전략 1) 중환자실에서 환자, 가족중심 정보제공을 위한 실천적 전략 : 센스 메이킹 촉진 이론(FSM)토대로 전략 마련, ASK-TELL-ASK기법, 문헌 통해 evidence based practice 소개 2) 정보제공을 위한 의사소통 도구 활용 : 팜플렛 활용, video활용한 ICU 환경 소개 영상	1.0	-	-
	4. 사례를 통한 가족과의 의사소통의 실전 연습 (1) Group discussion 사례 1) 비계획적으로 ICU입실해서 보호자의 중환자실 첫 면회 상황 정oo(F/54)는 ovary cancer로 진단받고 TAH(Total hysterectomy, 전자궁적출술) 수술 후 병동에서 care를 받고 있는 환자이다. 수술이 끝난 지 채 하루가 되지 않아 혈압이 80/50으로 저하되고 수액 Full drip후에도 지속적으로 낮은 혈압, 39도의 고열 증상을 보여 집중 관찰을 위하 밤 11시에 중환자실로 이송되었다. Q: 중환자실 담당 간호사는 환자보호자와 첫 면회 시 어떤 정보를 제공할 수 있으며, 가족의 궁금한 점을 파악하여 효과적으로 전달할 수 있을까? -> Group discussion 후 예시 script를 제공 예정	1.0	-	-
	(2) Role-play & Self-reflection 사례 2) 35세 남성 환자 이씨는 교통사고로 인해 다발성 손상을 입고 중환자실에 입원 중이다. 현재 진정(Sedation) 상태에 있으며, 인공호흡기를 사용하고 있습니다. 환자의 상태가 중증이고 혈압상승제를 사용하고 있으며 보호자들은 많은 걱정을 하고 있다. 간호사 정씨는 보호자들에게 적절한 정보를 제공해야 하지만, 어떤 정보를 어디까지 제공해야 할지 명확하지 않은 상황이다. A. 보호자(딸): *"지금 우리 아저씨 상태가 어떤 가요? 갑자기 멀쩡하던 사람이 이렇게 사고를 당해서. 제는 혈압 올리는 약을 쓰고 있다고 하던데요* B. 간호사:	1.0	-	-

대인관계 기술 **(2) 공감 역량**	공감에 대한 이해	1. 공감에 대한 이해 1) 공감의 개념과 공감 만족, 공감 피로 (1) 개념에 대한 이해, : 구성요소 (인지적, 정서적, 표현적 요소) (2) 중환자실 간호사의 공감을 수행하는데 영향 미치는 요인, 공감 만족과 공감피로와의 관계, 공감의 효과 2. 순환적 공감 모형 (5단계)	1.0	-	-
	공감을 표현하는 역량	3. 공감 역량 향상을 위한 전략(공감의 구성요소에 따른 전략 마련) 1) 인지적, 정서적 요소 : 환자 가족의 입장 되어 보기 (role-play & self-reflection) & 내가 보호자의 입장일 때 느꼈던 감정 표현해 보기 사례) 음주운전 피해자인 김xx씨(M/68) 의식불명상태로 중환자실에 누워있는 환자의 보호자(딸 혹은 아들)의 입장 A. 보호자: (중환자실에 들어오며 주변을 둘러보며) *"저기... 여기 환자 상태 좀 알 수 있을까요? 담당 간호사님이 누구신지"*(보호자는 여러 간호사들이 바쁘게 움직이는 모습을 보며, 누구에게 말을 걸어야 할지 망설인다.) (조심스럽게) *"선생님, 환자 상태 알 수 있을까요?"* B. 담당 간호사: (걸어오며) *"네? 관계가 어떻게 되세요?"* A. 보호자: *"000 환자 딸입니다. 상태가 궁금해서요."* B. 담당 간호사: (피곤한 표정으로)*"어제랑 똑같아요. 약 들어가고 있고 지금 주무시고 있는 상태예요."* (자리 떠남) (보호자는 간호사가 컴퓨터 앞에 앉아 다른 간호사와 즐겁게 대화를 나누는 모습을 바라보며 불안하고 답답한 마음을 느낀다. 면회 시간이 끝날 때까지 보호자는 간호사와 다시 대화를 할 기회 얻지 못함)	1.0	• (걸어오며) ->(환자 앞 컴퓨터에서 뭔가 키보드를 두드리며 다가오는 보호자를 힐끗 본다.) • (피곤한 표정으로) -> (컴퓨터 화면을 응시하며)	• 의견대로 수정함
		2) 표현적 요소_공감 능력 측정도구(이영진이 개발한 도구를 Lee & Seomun, 2016이 수정, 보완한 도구, 본 프로그램에서 간호사 대상 교육 전, 후 측정할 도구) 하위 영역 ① 의사소통(언어적, 비언어적), ② 민감성, ③ 통찰력: 각 하위 영역에 대한 이해, 구체적 공감 표현에 대한 예시 제공 3) 동영상 시청	1.0	-	-

		4. 사례를 통한 공감표현훈련 (간호사들이 공감하기 힘든 특정 사례 및 경험을 기반으로 role play & debriefing) 사례1) 말기 환자와 임종 앞둔 환자의 보호자에게 공감 표현 환자 박씨(M/55)는 임종을 앞두고 있으며, 모든 연치료가 중단된 상태에서 가족들과 마지막 면회를 하고 있다. 박씨의 아내는 남편의 침대 옆에서 계속 울고 있으며, 보호자는 담당간호사에게 다음과 같이 말한다. *A. 보호자 (아내): "우리 남편을 도대체 어떻게 보내 줘야 할지 모르겠어요... 정말 어떻게 해야 할지..."* *B. 간호사:*	1.0	-	-
		사례 2) 20대 딸이 교통사고를 당해 하반신 마비가 온 상태로 ICU에서 치료를 받고 있고 면회 시간에 하염없이 눈물을 흘리는 환자의 엄마와 마주하는 상황 [김oo(F/23)환자는 불의의 교통사고로 인해 하반신이 마비된 상태이며, 양팔만 간신히 움직일 수 있다. 양쪽 다리는 여러 차례 수술로 인해 붕대로 감싸져 있고, 인공 호흡기를 통해 간신히 호흡을 유지하고 있다. Pain control목적으로 가벼운 진정상태(mild sedation)이다. *A. 환자의 엄마: (한참을 흐느껴 우시다가) 오늘 우리 애는 좀 어떤 가요?* *B. 간호사:*	1.0	-	-
대인관계 기술 (3) 환자 및 가족과의 협력	정보제공능력, 가족의 참여 촉진 (care, decision-making)	정보제공관련내용은 3회기 가족과의 의사소통 전략 부분에서 다룸 1. PFCC에서 협력(collaboration)에 대한 이해 1) 협력의 개념적 이해 2) 가족의 참여, 협력, 공유된 의사결정과의 관계 2. 환자나 가족의 선호도에 따라 가족의 참여를 촉진, 지도, 모니터링 할 수 있는 능력 1) 참여의 개념 2) 가족이 중환자 Care에 참여할 수 있는 종류 3) 중환자실에서 가족 참여 중재 및 효과 (Physical, non-physical)	1.0	-	-

		공유된 의사결정 (Shared decision making)을 촉진할 수 있는 역량	3. PFCC수행을 위한 Shared Decision-making (SDM)의 개념과 과정을 이해하고 역량 증진을 위한 전략 1) SDM의 정의, 핵심 개념 2) SDM을 적용해야 하는 경우, SDM을 위한 의사결정 3) 간호사의 SDM을 위한 의사소통 전략 4) 가족들의 의사결정을 지지하는 Decision aid (의사결정 지원 도구) : Decision aid를 개발하여 의사결정을 지지한 문헌 기반 사례 소개	1.0	-	-
			4. role-play & self-reflection 사례 1) 한 20대 남동생이 자전거를 타고가다가 교통사고를 당해 뇌사상태에 빠져 있다. 이때 환자의 누나와 형은 평소 동생의 연명의료치료에 대한 동생의 생각에 대해 건강했을 때 이야기를 나눠본 적도 없고 앞으로 어떠한 방향으로 치료를 결정해야 할지 막막한 상태이다. A. 환자의 누나: *"의사선생님이 우리 동생 사실상 깨어날 가능성이 희박하다고 하시고, 장기기증에 대해서도 언급하셨는데 저희는 갑작스러운 일이라 뭘 어떻게 결정해야 할지 모르겠네요."* B. 담당 간호사:	1.0	-	-
			사례 2) 동영상을 통한 사례 소개 (shared decision making, a short film 동영상 시청): 대장암으로 진단받고 의료진의 권유에 따라 전대장절제술을 받은 김 XX(M/72)씨의 사례 #1 부적절한 버전의 내용을 시청 후 잠시 동영상을 멈추고 참가들끼리 5-10분 정도의 토론시간을 갖도록 한다. 환자 및 가족과 함께 공유된 의사결정을 수행하기 위해서는 동영상에서 환자가 경험한 일련의 과정들 중에 어떠한 개입과 정보제공, 노력들이 필요 했는지에 대해 토론해 보기, #2 적절한 버전의 동영상 시청	1.0	-	-
돌봄 환경	**물리적 환경**	병동의 구조, 환경 관리	1. PCN(Person-centered Nursing) 이론에서 돌봄 환경 1) 돌봄 환경에 대한 이해 2) 중환자실의 물리적 환경: ICU에서의 소음 2. 물리적 환경관리(Physical environment) (1) PFCC에서 물리적 환경관리의 중요성 (2) 중환자실에서 환자중심환경을 위한 전략 및 환자중심설계를 위한 사례 소개 (3) 중환자실의 소음 감소를 위한 중재 개발 및 적용효과를 확인한 사례 소개	1.0	• 환자가 호소하는 중환자실 소음, 자극에 대한 데이터 소개, 실제 적용할 수 있는 부분 등을 추가로 다루는 것에 대한 의견	• 소음에 대한 환자의 인지에 대해 소개 추가 (문헌기반) • 중환자실의 소음 감소를 위한 중재 개발 및 적용효과를 확인한 사례 소개 내용 추가함

지지적 조직 체계	동료의 지지	3. 효과적인 직원 간의 관계 (동료 지지를 중심으로) 1) 동료 지지의 개념 및 속성, 결과 2) 동료 지지의 긍정적인 영향 및 PFCC수행과의 관계 3) 중환자실 간호사들 간의 의사소통 경험을 다룬 문헌 소개(중환자실 간호사들 간의 의사소통 경험_질적 연구) & 자신의 경험 공유 (동료 지지를 받은 경험, 의사소통 경험 등)	1.0	-	-
		4. Role play (정서적, 정보적, 평가적 지지 수행) & self-reflection 사례1) 주00 간호사는 성인 중환자실 경력 10년차 간호사이다. 신규 간호사가 많아 요즘 여러가지 크고 작은 근접오류들이 자주 발생하고 있다. Evening출근해서 assign과 함께 앞 턴 day근무 간호사를 확인해보니 오늘 처음으로 독립한 신규 간호사 정oo였다. 주oo 간호사는 전체 인계가 끝난 후 정oo간호사로부터 개별적 인계를 받기 시작했다. 정xx 간호사는 뭔가 계속 불안해 보이며 잔뜩 긴장해 있는 상태이다. A. 신규RN정oo: (떨리는 목소리, 정리되지 않은 주변 환경) *"인계 드리겠습니다…...음…"*(떠듬떠듬.) B. 경력RN 주oo:	1.0	-	-

Appendix 11. Detailed education plan

[환자-가족중심간호 역량 증진 교육 프로그램] 교수학습 지도안

일시	2024-9, 10월	장소	대면 (회의실)	
회 기	1 회기	총 소요 시간	70분	
학습 주제	• 환자-가족중심간호 (Patient-and family- centered care, PFCC) 수행을 위한 간호사의 전문적인 역량 (PFCC에 대한 지식, 임상에의 적용)	이론의 구성 요소	전문적 역량 (professional competence)	
학습 목표	1. PFCC에 대한 지식이 향상된다. 2. PFCC실천에 대한 동기부여가 증가한다. 3. PFCC에 대한 지식을 임상현장에서 적용할 수 있다.			
학습 자료	PPT강의자료, 동영상, 활동지			
학습 단계	교수 · 학습활동		학습 전략	분
도입	• Program 전체 일정 소개 • 프로그램 참여 동기 및 교육을 통해 기대하는 바를 공유 • 이번 회차 학습주제, 목표, 내용 소개		•PPT, 동영상	15
전개	1. PFCC에 대한 이해 1) Brainstorming “내가 생각하는 PFCC란 무엇인가?” 2) 정의, 주요 개념 소개, PCN(Person-centered nursing) theory 기반으로 간호사에게 필요한 역량 소개 3) 동영상 (Understanding patient-centered care)시청 2. ICU에서 PFCC수행에 따른 효과 및 수행 촉진/방해 요인 1) 효과: 환자, 가족, 의료진, 의료자원 측면 2) 촉진, 방해 요인: 개인적, 조직적 수준 3. 중환자실에서의 가족 역할의 중요성, 가족 역할, 가족 참여에 대한 나의 인식			20
	4. 중환자실에서 PFCC적용의 모범사례 제시 사례)심근경색으로 응급실 통해 중환자실 내원한 환자, 보호자에게 PFCC적용의 모범사례(PCN theoretical framework에서의 care process를 중심으로 제시) 5. PFCC 실천을 위한 실전 훈련 1) Group discussion & 그룹별로 작성해서 공유하기 사례 1. 김씨(M/65)는 Lung cancer(폐암)로 진단받고 Rt. pneumonectomy(우측 폐 전 절제술) 수술 후 post op care를 받고 병동으로 전동 갔다. 병동에 전동간 지 이틀째 갑자기 39도의 고열과 함께 호흡곤란을 호소하였고 facial mask를 통한 고농도의 산소주입에도 불구하고 상태 호전이 없어 급하게 중환자실로 다시 이송되었다. 담당 간호사는 전동 온 환자에게 monitoring을 위한 장비들을 부착하고 환자의 활력징후를 측정, 의식상태를 확인하는 등 전반적인 환자 상태를 평가하였다. 환자의 의식은 대화가 가능한 정도이며 지시에 따를 수 있다. 승압		•Group discussion •Role-play & Self-reflection •Action Plan	25

	제 투여가 시작되었으며, 기관내 삽관이 고려되고 있는 상황이다. 환자 보호자(아내)를 처음 면회시켜주는 상황이다. A. 환자의 아내: (다소 격양된 말투) *"저희 남편 상태는 좀 어떤 가요? 갑자기 이게 무슨 일인지 모르겠네. 입에 있는 관은 언제까지 갖고 있어야 돼요? 우리 남편 추위 잘 타는데 손, 발이 얼음장 같네..."* B. 간호사: 2) role-play & self-reflection (사례2) 사례 2. 간이식을 받고 중환자실에서 post op care를 받고 있는 이씨(F/62)는 각종 약물이 중심 정맥관을 통해 주입 중이다. 산소는 NP (비강 케뉼라)을 통해 5L가 제공되고 있으며 의식 수준(GCS)은 3/3/6으로 부르는 소리에 눈을 뜨고 "000시 맞으세요?" 라는 질문에 "응? 뭐?" 라고 묻는다. "손잡아보세요." 라는 의료진의 지시에 손은 잡지만 일관적이지는 않다. 환자는 몸에 있는 여러 line들을 만지작거리며 불안한 모습을 보이고 있으며, 담당간호사는 self-removal등 안전에 위협이 될 가능성이 높다고 판단하여 양팔에 억제대를 적용하였다. 그러자 환자가 더 안절부절못하고 격한 반응을 보이며, "여기가 어디야?" "내가 왜 여기 있어? 나 빨리 집에 가야 하는데 신발 좀 줘" "이것 좀 풀어줘" 라는 말을 반복하면서 지속적으로 소리치고 있다. A. 환자: *"여기가 어디야?" "내가 왜 여기 있어? 나 빨리 집에 가야 하는데 신발 좀 줘" "보호자 전화 좀 해줘"*		
마무리	• 오늘의 학습 내용 요약 및 마무리 • 학습내용을 토대로 임상에서 적용할 수 있는 자신만의 목표, 계획 및 전략 수립 (Action plan) • Q & A, 다음 회차 소개		10
참고 자료	・ McCormack & McCance (2016) Person-Centred practice in Nursing and Health care: Theory and Practice, 2nd Edition ・ IPFCC. Patient- and family-centered care defined. [retrieved on May 30]; 2024. ・ Yoo HJ, Shim J. The effect of a multifaceted family participation program in an adult cardiovascular surgery ICU. Crit Care Med. 2021;49(1):38-48. ・ Jin L, Sun L. Application of patient-centered care using guidelines of the Joint Commission on Accreditation of Healthcare Organizations in patients with acute subarachnoid hemorrhage. Am J Transl Res. 2021;13(4):2915-22. ・ ·van Mol MM, Boeter TG, Verharen L, Kompanje EJ, Bakker J, Nijkamp MD. Patient- and family-centred care in the intensive care unit: a challenge in the daily practice of healthcare professionals. J Clin Nurs. 2017;26(19-20):3212-23. ・ ·Salmani F, Mohammadi E, Rezvani M, Kazemnezhad A. The effects of family-centered affective stimulation on brain-injured comatose patients' level of consciousness: A randomized controlled trial. Int J Nurs Stud. 2017;74:44-52. ・ ·Dhillon A, Tardini F, Bittner E, Schmidt U, Allain R, Bigatello L. Benefit of using a "bundled" consent for intensive care unit procedures as part of an early family meeting. J Crit Care. 2014;29(6):919-22. ・ Lloyd, B., Elkins, M., & Innes, L. (2018). Barriers and enablers of patient and family-centred care in an Australian acute care hospital: Perspectives of health managers. *Patient Experience Journal*, *5*(3), 55-64. ・ Scott P, Thomson P, Shepherd A. Families of patients in ICU: A Scoping review of their needs and satisfaction with care. *Nurs Open*. 2019;6(3):698-712. Published 2019 May 18doi:10.1002/nop2.287 ・ Park M, Giap TT, Lee M, Jeong H, Jeong M, Go Y. Patient- and family-centered care interventions for improving the quality of health care: A review of systematic reviews. Int J Nurs Stud. 2018 Nov;87:69-83. doi: 10.1016/j.ijnurstu.2018.07.006. Epub 2018 Jul 26. PMID: 30056169.		

일시	2024 - 9월 첫째 주	장소	비대면 (ZOOM)
회 기	2 회기	총 소요 시간	70분
학습 주제	• 자기인식, 가치와 신념의 명확화, 직업에의 헌신에 대한 이해 및 실무자 로서의 자기인식 • 자신이 속한 조직문화에 대한 이해 및 평가	이론의 구성 요소	•자기인식 •가치와 신념의 명확화 •직업에의 헌신
학습 목표	1. 자기인식, 가치와 신념의 명확화, 직업에의 헌신의 개념에 대해 이해하고, PFCC 수행과의 관련성을 말할 수 있다. 2. PFCC의 실무자로서 자신의 생각, 감정, 행동 등에 대한 인식의 중요성을 안다. 3. 자신의 신념과 가치를 환자와 가족에게 간호 제공 시 조화롭게 적용할 수 있다. 4. 개인적 행동, 태도, 신념에 영향 미치는 조직문화를 이해하고 이를 평가 할 수 있다.		
학습 자료	PPT, 사진, 동영상, 활동지		

학습 단계	교수 · 학습활동	교수 · 학습 방법	분
도입	• 지난 시간 설정한 Action plan을 토대로 실천 경험 나누기 • 지난 회차 학습한 내용 review • 본 회차 학습주제, 목표, 내용 소개	PPT, 동영상, 활동지	10
전개	1. PFCC에서 자기인식, 자신의 신념과 가치의 명확화, 직업에의 헌신의 정의, PFCC 수행과의 관련성 2. PFCC 실무자로서 자신에 대한 탐색 & 함께 공유하기 1) 동영상 시청 : self-awareness improves patient centered care 2) 자기에 대한 탐색 ▶질문: (1) 나는 어떤 간호사인가? 간호사로서의 강점과 약점은 무엇인가? (간호사로서의 나) (2) 임상에서 어떠한 상황들이 나의 감정조절을 힘들게 하는가? 그러한 상황에서 나의 감정과 태도는 어떠한가? (자신의 감정, 태도 인식)		20
	3. 자신의 신념과 가치를 임상에서 조화롭게 수행할 수 있는 역량 (1) 적용 가능한 예시 소개 (2) 중환자실에서 간호사의 실제경험을 기반으로 Group discussion 사례 1) COVID-19 pandemic 상황이라 가정해보자. 중환자실 면회가 임종 상태 환자의 가족들만 면회가 허용되고 있는 상황이다. 평소 원칙을 반드시 지켜야 하며 모두에게 일관되게 적용되어야 한다는 가치를 가진 간호사 A는 한 환자의 보호자가 목사님을 모시고 와서 기도	•Group discussion •Role-play & Self-reflection •Action Plan	30

	를 해주고 싶다고 한다. 환자 조xx(M/72)씨는 현재 CVA (Cerebral vascular attack)으로 인한 Brain death 상황으로 의식 수준(GCS)은 E1M1(외부자극에 전혀 반응 없고 눈도 뜨지 않는 상태) 이며 인공호흡기를 통해 생명유지치료를 받고 있는 환자이다. 평소 환자는 신실한 기독교인이고, 보호자는 마지막 순간이 언제 올지 모르기 때문에 종교의식을 통해 위안을 받고 싶다고 이야기한다. 간호사 A는 이 요청을 어떻게 처리해야 할지 고민이다. *질문)담당 간호사라면 어떤 결정을 내리겠습니까? 이와 유사한 상황을 경험한 사례가 있다면 어떻게 대응했는지 공유해 주시겠습니까?* (3) PFCC수행과 업무로 인한 압박사이에서 균형 찾기 Role-play & Self-reflection **사례 2)** 중환자실에서 aggravated pneumonia로 인해 김oo(F/67)씨는 인공호흡기 치료를 받고 있다. 환자의 의식상태는 자발적으로 눈을 뜨고 “손들어보세요. 손잡아보세요” 등의 의료진 지시에 잘 따르는 GCS score 4/E/6이다. 양 팔에는 억제대가 적용되었고 팔다리의 Motor power는 Grade III(중력에 저항에서 들어올리는 상태)이다. 지속적으로 침대 난간을 치며 입을 축여 달라는 gesture를 통해 갈증을 해소해 줄 것을 요구한다. 담당 간호사 양xx는 Day출근을 했고 방금 환자 침상 목욕을 마친 상태이고, 환자의 아침 lab결과에 따라 오더가 추가되고 있는 상황에 분주하다. 환자의 요구를 최대한 존중하고 요구를 충족시키고자 입을 축여주었는데 눈이 마주칠 때마다 계속해서 요구하고 있는 환자에게 다가간다. A. 환자: (팔다리가 묶인 채 난간을 치며 입을 벌리는 gesture를 취한다.) B. 간호사: 4. PFCC수행을 위해 개인적인 수준에서의 자기인식, 직업에 대한 헌신뿐만 아니라 조직문화에 대해 인식하고 평가할 수 있는 역량이 필요 1) 환자중심조직문화에 대해 알기 (인식하기) : 조직문화의 역할 및 중요성 2) 조직문화 측정도구를 활용하여 자신의 조직에 대해 평가 : 환자 중심 간호 문화 측정도구 (Patient-Centered Nursing Culture Scale) 3) 조직의 강점과 약점을 파악, 실천전략 세워 보기 (Group discussion)		
마무리	• 오늘의 학습 내용 요약 및 마무리 • 오늘 학습내용을 중심으로 임상에서 적용할 수 있는 자신만의 목표, 계획 및 전략 (Action plan) 설정하기 • Q&A • 다음 회차 안내		10
참고자료	•McCormack & McCance (2016) Person-Centred practice in Nursing and Health care: Theory and Practice, 2nd Edition •Jakimowicz, S., Perry, L., & Lewis, J. (2018). Insights on compassion and patient-centred nursing in intensive care: A constructivist grounded theory. *Journal of clinical nursing*, *27*(7-8), 1599–1611. https://doi.org/10.1111/jocn.14231 •Shin, E., & Yoon, S. H. (2019). Development of the patient-centered nursing culture scale for hospitals. *Journal of Korean Academy of Nursing*, *49*(5), 613-630. •Lee, Y., & Seomun, G. (2016). Development and validation of an instrument to measure nurses' compassion competence. *Applied Nursing Research*, *30*, 76-82. •Abu Lebda, H., Malak, M. Z., & Hamaideh, S. H. (2023). Self-awareness, empathy, and patient-centered care among critical care nurses in Jordan. *Psychology, health & medicine*, *28*(9), 2764–2775. https://doi.org/10.1080/13548506.2022.2094427		

일시	2024-9월	장소	대면 (회의실)	
회 기	3 회기	총 소요 시간	70분	
학습주제	PFCC에서의 대인관계 기술(1) • 중환자실에서 자주 경험하는 발성이 불가능한 환자와의 치료적 의사소통 • 면회 시간을 활용한 보호자와의 치료적인 의사소통	이론의 구성 요소	대인관계 기술 (효과적인 의사소통)	
학습목표	1. 인공호흡기로 인해 발성이 불가능한 환자와의 치료적 의사소통을 위해 환자의 인지적, 운동능력을 사정할 수 있다. 2. 의사소통 알고리즘에 따라 적절한 의사소통 방법을 선택할 수 있다. 3. 가족과 치료적 의사소통을 효과적으로 수행할 수 있다.			
학습자료	PPT, 동영상, 활동지			
학습 단계	교수 · 학습활동		교수 · 학습 방법	분
도입	1. 지난 시간 설정한 Action plan을 토대로 실천 경험 나누기 2. 지난 회차 학습한 내용 review 3. 이번 회차 학습주제, 목표, 내용 소개		PPT, 동영상, 사진, 활동지 •Group discussion •Role-play & Self-reflection •Action Plan	10
전개	■ 환자와의 의사소통 1. 치료적 의사소통(Therapeutic communication)에 대한 이해 1) 개념적 정의, 선행 요인, 속성, 결과 2) 치료적 의사소통 (동영상 시청) verbal, non-verbal communication 3) 치료적 의사소통 유형 & 유형별로 적절한 의사소통 방법 & Quiz time (치료적 의사소통 관련 2-3문항 함께 풀기) 2. 발성이 불가능한 환자와의 효과적인 의사소통을 위한 간호사의 역량 증진 1) Clinical decision pathway (algorithm)을 활용하여 환자 인지, 운동 능력 평가하기, 관련 동영상 시청 2) 환자의 인지적, 운동 능력에 따라 의사소통 전략 사용 (단어 및 그림 의사소통 판, 필기도구, Vida Talk app 소개)			20
	■ 가족과의 의사소통 1. 가족과의 의사소통에 대한 간호사 자신의 역할에 대한 인식 (1) 가족과의 의사소통 시 간호사의 역할에 대한 인식: 참가자들이 공유할 수 있도록 격려, 이와 관련된 문헌 소개 (2) 간호사의 중요한 역할에 대한 인식 증가 및 동기부여: 센스 메이킹 촉진 이론_Facilitated sense making (FSM) <간호사의 촉진자, 정보제공자, 치료적 돌봄 관계 형성, 의사결정 유도자 역할 등의 중요한 영향력을 인식하고, 적극적으로 의사소통을 수행할 수 있도록 동기부여> 2. 가족에 대한 이해 1) 가족입장에서의 의료진과 의사소통 경험, 어려움 2) 중환자실에서의 정보제공 &			30

	가족과 의료진이 생각하는 중요 정보의 차이 3. 중환자실에서의 불확실성을 다루기 위한 정보제공 전략 1)중환자실에서 환자, 가족중심 정보제공을 위한 실천적 전략 2)정보제공을 위한 의사소통 Tool활용(#1.Pamphlet, #2.Video) 4. 사례를 통한 중환자실 가족과의 의사소통 실전 연습 (1) Group discussion 사례 1) 비계획적으로 ICU입실한 상황에서 보호자의 중환자실 첫 면회 상황 정oo(F/54)는 ovary cancer로 진단받고 TAH(Total abdominal hysterectomy)수술 후 병동에서 care를 받고 있는 환자이다. 수술이 끝난 지 채 하루가 되지 않아 혈압이 80/50으로 저하되고 fluid resuscitation후에도 지속적으로 낮은 혈압, 39도의 고열 증상을 보여 집중 관찰을 위하 밤 11시에 중환자실로 이송되었다. 질문: 담당간호사는 환자 보호자와 첫 면회 시 어떠한 정보를 전달해 줄 수 있으며, 가족과 치료적인 의사소통을 수행할 수 있을까? 함께 이야기해보자. (2) Role-play (역할극) & Self-reflection 사례2) 35세 남성 환자 이씨는 교통사고로 인해 다발성 손상을 입고 중환자실에 입원 중이다. 현재 진정(Sedation) 상태에 있으며, 인공호흡기를 사용하고 있습니다. 환자의 상태가 중증이고 여러 치료가 동시에 이루어지고 있어 보호자들은 많은 걱정을 하고 있다. 간호사 정씨는 보호자들에게 적절한 정보를 제공해야 하지만, 어떤 정보를 어디까지 제공해야 할지 명확하지 않은 상황이다. 보호자 (딸): 지금 우리 아저씨 상태가 어떤가요? 갑자기 멀쩡하던 사람이 이렇게 사고를 당해서 어제는 혈압 올리는 약을 쓰고 있다 하던데요. 간호사:		
마무리	• 오늘의 학습 내용 요약 및 마무리 • 오늘 학습내용을 중심으로 임상에서 적용할 수 있는 자신만의 목표, 계획 및 전략 (Action plan) 설정하기 • Q & A • 다음 회차 소개		10
참고 자료	•Happ, M. B., Sereika, S., Garrett, K., & Tate, J. (2008). Use of the quasi-experimental sequential cohort design in the Study of Patient-Nurse Effectiveness with Assisted Communication Strategies (SPEACS). *Contemporary clinical trials*, *29*(5), 801–808. https://doi.org/10.1016/j.cct.2008.05.010 • Happ, M. B., Garrett, K. L., Tate, J. A., DiVirgilio, D., Houze, M. P., Demirci, J. R., George, E., & Sereika, S. M. (2014). Effect of a multi-level intervention on nurse-patient communication in the intensive care unit: results of the SPEACS trial. *Heart & lung: the journal of critical care*, *43*(2), 89–98. https://doi.org/10.1016/j.hrtlng.2013.11.010 •Happ M. B. (2021). Giving Voice: Nurse-Patient Communication in the Intensive Care Unit. *American journal of critical care: an official publication, American Association of Critical-Care Nurses*, *30*(4), 256–265. https://doi.org/10.4037/ajcc2021666 •Adams, A., Mannix, T., & Harrington, A. (2017). Nurses' communication with families in the intensive care unit - a literature review. *Nursing in critical care*, *22*(2), 70–80. https://doi.org/10.1111/nicc.12141 •Davidson JE, Aslakson RA, Long AC, Puntillo KA, Kross EK, Hart J, Cox CE, Wunsch H, Wickline MA, Nunnally ME, Netzer G, Kentish-Barnes N, Sprung CL, Hartog CS, Coombs M, Gerritsen RT, Hopkins RO, Franck LS, Skrobik Y, Kon AA, Scruth EA, Harvey MA, Lewis-Newby M, White DB, Swoboda SM, Cooke CR, Levy MM, Azoulay E, Curtis JR. Guidelines for Family-Centered Care in the Neonatal, Pediatric, and Adult ICU. Crit Care Med. 2017 Jan;45(1):103-128. •Xue, W., & Heffernan, C. (2021). Therapeutic communication within the nurse–patient relationship: A concept analysis. *International Journal of Nursing Practice*, *27*(6), e12938. •Jin, J., Son, Y. J., Tate, J. A., & Choi, J. (2022). Challenges And Learning Needs Of Nurse-Patients' Family Communication: Focus Group Interviews With Intensive Care Unit Nurses In South Korea. *Evaluation & the health*		

	professions, *45*(4), 411-419. • Huang, H., Dong, H., Guan, X., Zhang, L., & Zhou, Q. (2022). The facilitated sensemaking model as a framework for nursing intervention on family members of mechanically ventilated patients in the intensive care unit. *Worldviews on Evidence-Based Nursing*, *19*(6), 467-476. •SANGI, S., ABBASI, M., NABAVI, F. H., MIRI, H. H., LANGARI, M., NEKOUEI, M., & FATEMEH, H. A. (2023). Enhancing family nursing practice: The effect of a supportive-educational programme on the family nursing practice, family satisfaction and family perceived support in the intensive care unit. *Family Medicine & Primary Care Review*, *25*(2). •Reifarth, E., Garcia Borrega, J., & Kochanek, M. (2023). How to communicate with family members of the critically ill in the intensive care unit: A scoping review. *Intensive & critical care nursing*, *74*, 103328. https://doi.org/10.1016/j.iccn.2022.103328		

일시	2024년 9,10월	장소	비대면 (ZOOM)	
회 기	4회기	총 소요 시간	70분	
학습 주제	PFCC수행을 위한 대인관계 기술(2) 공감에 대한 이해 및 공감표현의 역량 증진	이론의 구성 요소	대인관계 기술 (공감 역량)	
학습 목표	1. 공감의 개념, 영향요인, 공감 만족, 공감 피로에 대해 이해한다. 2. 공감 역량 증진을 위한 전략을 말할 수 있다. 3. 중환자실에서 보호자에게 적절한 공감을 표현할 수 있다.			
학습 자료	PPT, 동영상, 활동지			
학습 단계	교수 · 학습활동		교수 · 학습 방법	분
도입	1. 지난 시간 학습내용 복습 및 Action plan을 토대로 실천 경험 나누기 2. 지난 회차 학습한 내용 review 3. 이번 회차 학습주제, 목표, 내용 소개		PPT, 동영상, 활동지	10
전개	1. 공감에 대한 이해 1) 공감의 개념과 공감 만족, 공감 피로 (1) 개념, 구성요소 (인지적, 정서적, 표현적 요소), 효과 (2) 공감 만족과 공감 피로 2. 순환적 공감 모형 (5단계) ① 공감적 주의집중: 자기자신을 인식하고 타인에게 주의를 기울이는 과정 ② 공감적 공명: 타인의 경험을 듣거나 보고 개인이 내적으로 이해하고 감정을 느끼는 것 ③ 표현된 공감: 공감을 실제로 표현하는 것 ④ 지각된 공감: 표현한 공감이 성공적으로 전달 ⑤ 공감의 순환: 이러한 과정이 주의집중 단계로 이어지면서 단계적으로 자연스럽게 반복되는 것 3. 중환자실에서 공감 역량 향상을 위한 전략 1) 인지적, 정서적 요소 : 환자의 가족의 입장이 되어 보기 (role-play & self-reflection) 사례) 음주운전 피해자로 의식불명상태로 중환자실에 누워있는 환자의 보호자(딸 혹은 아들)의 입장에서의 role-play서로 역할을 바꿔가면서 역할극 수행하기(2인 1조) 보호자 역할을 했을 때 느꼈던 감정에 대해 표현해 보기 2) 표현적 요소 : 공감 능력 측정도구의 하위 영역 의사소통(언어적, 비언어적), 민감성(수용 기법), 통찰력에 대한 이해, 구체적인 공감 표현에 대한 예시 제공 3) 동영상 시청 4. 사례를 통한 공감표현훈련 (Role play & Self-reflection) **사례1)** 말기 환자와 임종을 앞둔 환자의 보호자와 의사소통 하기 (End of life상황에서 가족의 감정을 공감해주면서 의사소통하기		•Group discussion •Role-play & Self-reflection •Action Plan	40

	환자 박씨(M/55)는 임종을 앞두고 있으며, 모든 연명치료가 중단된 상태에서 가족들과 마지막 면회를 하고 있다. 박씨의 아내는 남편의 침대 옆에서 계속 울고 있으며, 보호자는 담당간호사에게 다음과 같이 말한다. *A. 보호자 (아내): "우리 남편을 도대체 어떻게 보내줘야 할지 모르겠어요... 정말 어떻게 해야 할지..."* *B. 간호사:* **사례2)** 20대 딸이 교통사고를 당해 하반신 마비가 온상태로 중환자실에서 치료를 받고 있고 면회 시간에 하염없이 눈물을 흘리는 환자의 엄마와 마주하는 상황 김oo(F/23)환자는 불의의 교통사고를 당해 하반신이 마비된 상태이고 양 팔만 간신히 움직일 수 있다. 양쪽 다리는 여러 차례 수술로 인해 붕대로 감아져 있고 인공호흡기로 간신히 호흡을 유지한 채 누워있다. Pain control목적으로 mild sedation중이다. 환자의 엄마: (한참을 흐느껴 우시다가) 오늘 우리 애는 좀 어떤가요? 간호사:_____ **사례3)** traumatic Subarachnoid hemorrhage로 인해 무의식 상태이고 예후가 명확하지 않은 보호자가 면회시간마다 “우리 아저씨 언제쯤 깨어날까요?” “간호사님이 보시기에는 좀 어떤가요?”, ”경험상 보통 언제쯤 깨어나실까요?” 등의 질문을 하는 경우 적절한 반응 및 공감 표현에 대한 group discussion (언어적, 비언어적 공감 표현 모두를 적용해 보세요).		
마무리	• 오늘의 학습 내용 요약 및 마무리 • 오늘 학습내용을 중심으로 임상에서 적용할 수 있는 자신만의 목표, 계획 및 전략 설정하기 (임상 현장을 통해 환자 및 보호자와 직접 상호작용을 통해 향상 가능) • Q & A		10
참고 자료	•송애랑. (2018). 현장에서 인정받는 간호사의 대화법 [간호사, 어떻게 말해야 하는가].북샵 •Lisa Kennedy Sheldon 지음. (2010). 간호사를 위한 의사소통 [환자와 대화하기]. 군자출판사 •Mirzaei Maghsud A, Abazari F, Miri S, Sadat Nematollahi M. The effectiveness of empathy training on the empathy skills of nurses working in intensive care units. *J Res Nurs*. 2020;25(8):722-731. •정계아. (2019). *간호대학생을 위한 시뮬레이션 기반 공감능력 향상 프로그램 개발 및 적용 효과*. 강원대학교 대학원, 춘천. Retrieved from https://www.riss.kr/link?id=T15066264 [국내박사학위논문] •정진옥, & 김수. (2019b). 간호대학생을 위한 공감교육 프로그램이 공감능력, 대인관계 능력 및 돌봄에 미치는 효과 [The Effect of an Empathy Education Program on Nursing Students' Empathy Ability, Interpersonal Ability, and Caring]. *한국간호교육학회지, 25*(3), 344-356. Retrieved from https://www.riss.kr/link?id=A106337338 •Bas-Sarmiento, P., Fernández-Gutiérrez, M., Baena-Baños, M., Correro-Bermejo, A., Soler-Martins, P. S., & de la Torre-Moyano, S. (2020). Empathy training in health sciences: A systematic review. *Nurse Education in Practice*, *44*, 102739. •Lee, Y., & Seomun, G. (2016). Development and validation of an instrument to measure nurses' compassion competence. *Applied Nursing Research*, *30*, 76-82.		

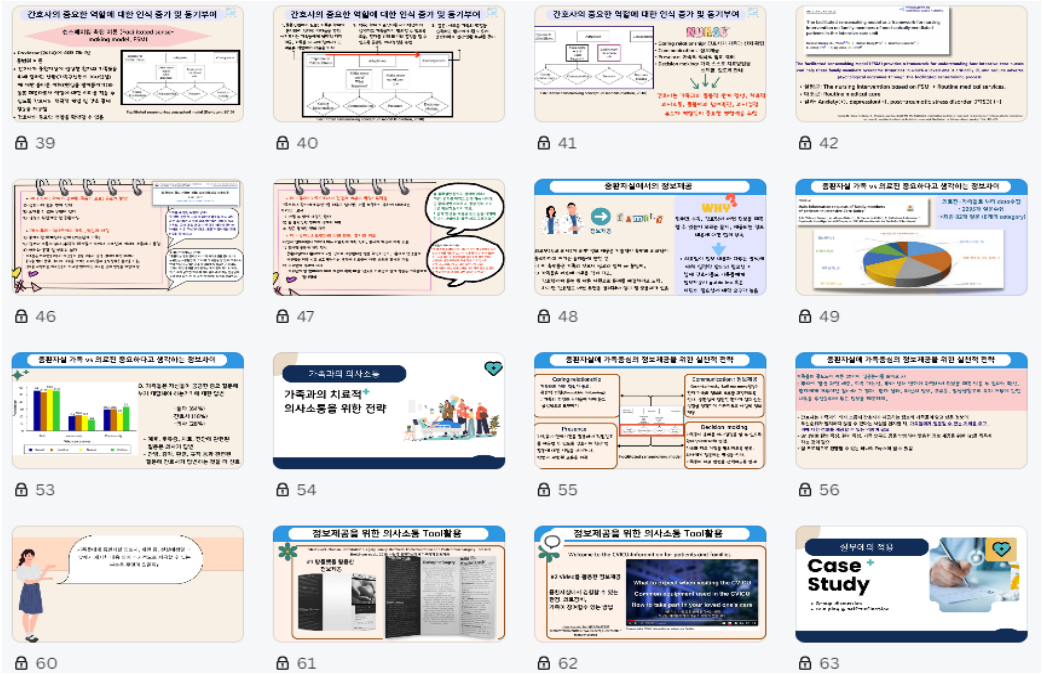
일시	2024-9, 10월	장소	비대면 (ZOOM)	
회 기	5회기	총 소요 시간	70분	
학습주제	PFCC에서의 대인관계 기술(3)	이론의 구성 요소	대인관계 기술 (협력 역량)	
학습목표	1. PFCC에서의 **협력(collaboration)**을 이해한다. 2. 가족 참여(Participation)의 중요성을 인식하고, 가족을 지지할 수 있다. 3. 공유된 의사결정을 이해하고 간호사의 역할을 습득한다.			
학습자료	PPT, 사진, 동영상, 활동지, 의사결정 지원도구(DA)			
학습 단계	교수 · 학습활동		교수학습 방법	분
도입	1. 지난 시간 학습내용 복습 및 Action plan을 토대로 실천 경험 나누기 2. 지난 회차 학습한 내용 review 3. 이번 회차 학습주제, 목표, 내용 소개		PPT, 동영상, 사진, app	10
전개	1. PFCC에서 협력(collaboration)에 대한 이해 1) 협력의 개념적 이해 2) 가족의 참여, 협력, 공유된 의사결정과의 관계 2. 환자나 가족의 선호도에 따라 가족의 참여를 촉진, 지도, 모니터링 할 수 있는 능력 1) 참여의 개념 2) 가족이 중환자 Care에 참여할 수 있는 종류 3) 중환자실에서 가족 참여 중재 및 효과 3. PFCC수행을 위한 Shared Decision-making (SDM)의 개념과 과정을 이해하고 역량 증진을 위한 전략 1) SDM의 정의, 핵심 개념 2) SDM을 적용해야 하는 경우, SDM을 위한 의사결정 3) 간호사의 SDM역량 증진을 위한 전략 4) 가족들의 의사결정을 지지하는 Decision aid : Decision aid를 개발하여 의사결정을 지지 4. Role-play를 통한 임상에서의 적용 사례 1)한 20대 남동생이 자전거를 타고가다가 교통사고를 당해 뇌사상태에 빠져 있다. 이때 환자의 누나와 형은 평소 동생의 연명의료치료에 대한 의사도 어떠 한지 모르고 앞으로 어떠한 방향으로 치료를 결정해야 할지 막막한 상태이다. A. 환자의 누나: 의사선생님이 우리 동생이 사실상 깨어날 가능성이 희박하다고 하시고, 장기기증에 대해서도 언급하셨는데 저희는 갑작스러운 일이라 뭘 어떻게 결정해야 할지 모르겠어요 B. 담당 간호사: 사례 2) 동영상을 통한 사례 소개 (**shared decision making, a short film동영상 시청**): 대장암으로 진단받고 의료진의 권유에 따라 전대장절제술을 받은 김XXX(M/72)씨의 사례 (부적절한 버전의 동영상을 시청 후 참가들끼리 5-10분정도의 토론시간을 갖도록 한다. 환자와 함께 공유된 의사결정을 수행하기 위해서는 일련의 과정들 중에 어떠한 개입과 정보제공, 노력들이 필요 했을지에 대해 토론해 보기). 그 이후 적절한 버전의 동영상을 시청		•Group discussion •Role-play & Self-reflection •Action Plan	50

마무리	• 오늘의 학습 내용 요약 및 마무리 • 오늘 학습내용을 중심으로 임상에서 적용할 수 있는 자신만의 목표, 계획 및 전략 설정하기 • Q&A • 다음 회차 설명		10
참고 자료	•Dijkstra, B. M., Felten-Barentsz, K. M., van der Valk, M. J., Pelgrim, T., van der Hoeven, H. G., Schoonhoven, L., ... & Vloet, L. C. (2023). Family participation in essential care activities: Needs, perceptions, preferences, and capacities of intensive care unit patients, relatives, and healthcare providers—An integrative review. *Australian Critical Care*, *36*(3), 401-419. •Heydari A, Sharifi M, Moghaddam AB. Family participation in the care of older adult patients admitted to the intensive care unit: A scoping review. Geriatr Nurs. 2020 Jul-Aug;41(4):474-484. doi: 10.1016/j.gerinurse.2020.01.020. Epub 2020 Feb 12. •Hsu HC, Lin MH. The impact of an educational program on nurses' shared decision-making attitudes: A randomized controlled trial. Appl Nurs Res. 2022 Jun;65:151587. doi: 10.1016/j.apnr.2022.151587. Epub 2022 May 2. •Jo KH, An GJ. Effects of an educational programme on shared decision-making among Korean nurses. Int J Nurs Pract. 2015 Dec;21(6):839-46. doi: 10.1111/ijn.12306. Epub 2014 Apr 8. PMID: 24713120. •Hengeveld, B., Maaskant, J. M., Lindeboom, R., Marshall, A. P., Vermeulen, H., & Eskes, A. M. (2021). Nursing competencies for family-centred care in the hospital setting: A multinational Q-methodology study. *Journal of advanced nursing*, *77*(4), 1783-1799. •Lei, Y., Zhou, Q., & Tao, Y. (2023). Decision Aids in the ICU: a scoping review. *BMJ open*, *13*(8), e075239. https://doi.org/10.1136/bmjopen-2023-075239 •Yoo, H. J., & Shim, J. (2021). The Effect of a Multifaceted Family Participation Program in an Adult Cardiovascular Surgery ICU. *Critical care medicine*, *49*(1), 38–48. https://doi.org/10.1097/CCM.0000000000004694 •Slatore CG, Hansen L, Ganzini L, et al. Communication by nurses in the intensive care unit: qualitative analysis of domains of patient-centered care. *Am J Crit Care*. 2012;21(6):410-418. doi:10.4037/ajcc2012124		

일시	2024-9, 10월	장소	대면 강의(회의실)	
회 기	6회기	총 소요 시간	70분	
학습주제	1. 환자와 가족들을 위한 물리적 환경 (Physical environment)관리 2. 효과적인 직원과의 관계를 위한 동료 지지	이론의 구성 요소	돌봄 환경 (Care environment)	
학습목표	1. 중환자실에서 돌봄 환경을 이해한다. 2. 중환자실에서 간호가 제공되는 물리적 환경을 사정하고 조절 가능한 요소를 찾아 조절할 수 있다. 3. 효과적인 직원 관계를 위한 동료 지지를 효과적으로 수행할 수 있다.			
학습자료	PPT, 동영상			
학습 단계	교수 · 학습활동		교수 · 학습 방법	분
도입	1. 지난 시간 학습내용 복습 및 Action plan을 토대로 실천 경험 나누기 2. 지난 회차 학습한 내용 review 3. 이번 회차 학습주제, 목표, 내용 소개		PPT, 동영상, 사진	10
전개	1. PCN(Person-centered Nursing) 이론에서 돌봄 환경 1) 돌봄 환경에 대한 이해 2) 중환자실의 물리적 환경 3) 중환자실에서의 소음, 중환자실 소음에 대한 환자의 인지 2. 물리적 환경관리(Physical environment) 1) PFCC에서 물리적 환경관리의 중요성 2) 환자중심환경을 위한 전략 및 환자중심설계를 위한 사례 소개 3) 중환자실의 소음 감소를 위한 중재 개발 및 적용효과를 확인한 사례 소개 3. 효과적인 직원 간의 관계 (동료 지지를 중심으로) 1) 동료 지지의 개념 및 속성, 결과 2) 동료 지지의 긍정적인 영향 및 PFCC수행과의 관계 3) 중환자실 간호사들 간의 의사소통 경험 문헌을 통해 소개 & 자신의 경험 공유(동료 지지 받은 경험, 의사소통 경험 등) 4. Role play & Self-reflection (정서적, 정보적, 평가적 지지를 수행해 보기) 사례1) 주00 간호사는 성인 중환자실 경력 10년차 간호사이다. 신규 간호사가 많아진 요즘 여러가지 크고 작은 근접오류들이 자주 발생하고 있다. Evening출근해서 assign과 함께 day근무 간호사를 확인하니 오늘 처음으로 독립한 신규 간호사 정oo였다. 주oo 간호사는 한숨부터 나왔지만 마음을 가라앉히고 전체 인계가 끝난 후 정oo간호사로부터 개별적 인계를 받기 시작했다. 정xx 간호사는 계속 불안해 보이며 잔뜩 긴장해 있는 상태이다.		•Group discussion •Role-play & Self-reflection •Action Plan	50

	・신규 간호사 정oo: (떨리는 목소리, 정리되지 않은 주변환경) 인계 드리겠습니다. 어.. ・경력 간호사 주oo:		
마무리	• 오늘의 학습 내용 요약 및 마무리 • 오늘 학습내용을 중심으로 임상에서 적용할 수 있는 자신만의 목표, 계획 및 전략 설정하기 • Q&A, 활동카드 전달		10
참고자료	•McCormack & McCance (2016) Person-Centred practice in Nursing and Health care: Theory and Practice, 2nd Edition •Dennis, C. L. (2003). Peer support within a health care context: a concept analysis. *International journal of nursing studies*, *40*(3), 321-332. •Pereira, L., Radovic, T., & Haykal, K. A. (2021). Peer support programs in the fields of medicine and nursing: a systematic search and narrative review. *Canadian Medical Education Journal*, *12*(3), 113-125. •Kang, J., Cho, Y. S., Jeong, Y. J., Kim, S. G., Yun, S., & Shim, M. (2018). Development and validation of a measurement to assess person-centered critical care nursing. *Journal of Korean Academy of Nursing*, *48*(3), 323-334. •Haruna, J., Unoki, T., Ishikawa, K., Okamura, H., Kamada, Y., & Hashimoto, N. (2022). Influence of mutual support on burnout among intensive care unit healthcare professionals. *SAGE open nursing*, *8*, 23779608221084977. •Lee, J. Y., & Pak, S. Y. (2016). The impacts of nurses' psycho-social health and social support from colleagues on patient caring ability. *Journal of Korean Academy of Nursing Administration*, *22*(5), 461-470. •SANGI, S., ABBASI, M., NABAVI, F. H., MIRI, H. H., LANGARI, M., NEKOUEI, M., & FATEMEH, H. A. (2023). Enhancing family nursing practice: The effect of a supportive-educational programme on the family nursing practice, family satisfaction and family perceived support in the intensive care unit. *Family Medicine & Primary Care Review*, *25*(2). •Tronstad O, Flaws D, Patterson S, Holdsworth R, Fraser JF. Creating the ICU of the future: patient-centred design to optimise recovery. *Crit Care*. 2023;27(1):402. Published 2023 Oct 21. doi:10.1186/s13054-023-04685-2		

Appendix 12. Educational material



Appendix 12. Educational material (Cont'd)

활동지, 활동 카드

[환자-가족중심간호 교육프로그램 활동지]

목차

3. Case 1) Group discussion

사례 1). 김씨(M/65)는 Lung cancer(폐암)로 진단받고 Rt pneumonectomy(우측 폐 전 절제술) 수술 후 post op care를 받고 병동으로 전동 갔다. 병동에 전동간 지 이틀째 갑자기 39도의 고열과 함께 호흡곤란을 호소하였고 facial mask를 통한 고농도의 산소주입에도 불구하고 상태호전이 없어 급하게 중환자실로 다시 이송되었다. 담당 간호사는 전동 온 환자에게 monitoring을 위한 장비들을 부착하고 환자의 활력징후를 측정, 의식상태를 확인하는 등 전반적인 환자 상태를 평가하였다. 환자의 의식은 대화가 가능한 정도이며 지시에 따를 수 있다. 승압제 투여가 시작되었으며, 기관내 삽관이 고려되고 있는 상황이다. 환자 보호자(아내)를 처음 면회시켜주는 상황지정이다.

A. 환자의 아내: (다소 격양된 말투) *"지희 남편 상태는 좀 어떤 가요? 갑자기 이게 무슨 일인지 모르겠네. 입에 있는 관은 언제까지 꽂고 있어야 돼요? 우리 남편 주위 잘 타는데 손, 발이 얼음장 같네.."*

질문> 위의 상황에서 환자와 가족들에게 제공할 수 있는 환자-가족중심간호를 앞에서 살펴본 Person centered nursing theoretical framework에서의 nursing process항목에 맞게 적용해 보자.

Care process

1. 환자의 가치와 신념 존중:
: 삶에 대한 가치관, 개인적인 관점 등에 대해 명확하게 파악하여 간호 및 치료에 반영하는 것

2. 참여 촉진
: 환자 및 보호자가 다양한 수준에서 환자치료의 목표설정, 간호계획 수립, 의사결정, 직접간호제공에 참여를 촉진하는 것

3. 감정적으로 함께하기 (정서적 지지제공)
: 감정표현을 격려하고 적절하게 반응함으로써 개별적인 고유성과 가치를 인식하는 간호사의 공감역량 강조

A. 환자: *"여기가 어디야?" "내가 왜 여기 있어? 나 빨리 집에 가야 하는데 신발 좀 줘" "보호자 전화 좀 해줘"*

B. 간호사:

개인별 성찰 일지	
질문 1.	■ "환자에게 어떤 정보를 제공했나?"
질문 2.	■ "환자의 상태를 어떻게 평가했나?"
질문 3.	■ "환자의 불안을 줄이기 위한 나의 접근방식은 어떠했나?"
질문 5.	■ "이 경험을 통해 비슷한 상황이 다시 발생했을 때, 어떻게 대응할 계획인가?"

1) 내용 성찰: 사건 또는 문제의 내용에 대해 조사하는 것으로 주로 '무엇'과 관련된 질문을 하면서 스스로 자기를 인식하는 것
2) 과정 성찰: 문제해결에 사용된 전략을 확인하는 단계, 주로 '어떻게'와 관련된 질문을 하면서 스스로 인식하는 것
3) 비판적 성찰: 문제를 제시할 때 발생하는 것, 주로 '왜'라는 질문을 하면서 스스로 인식

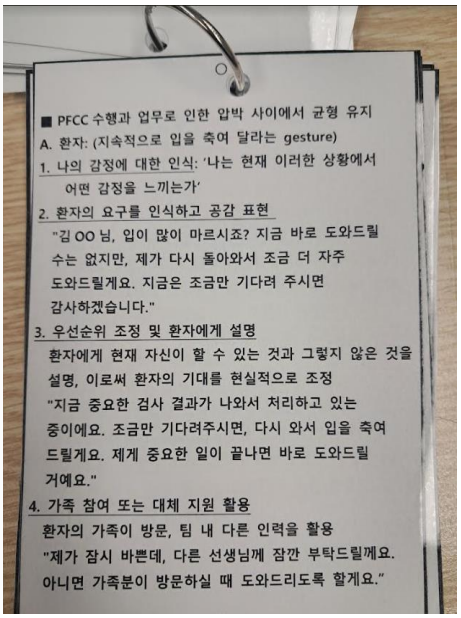
5. Action plan 작성

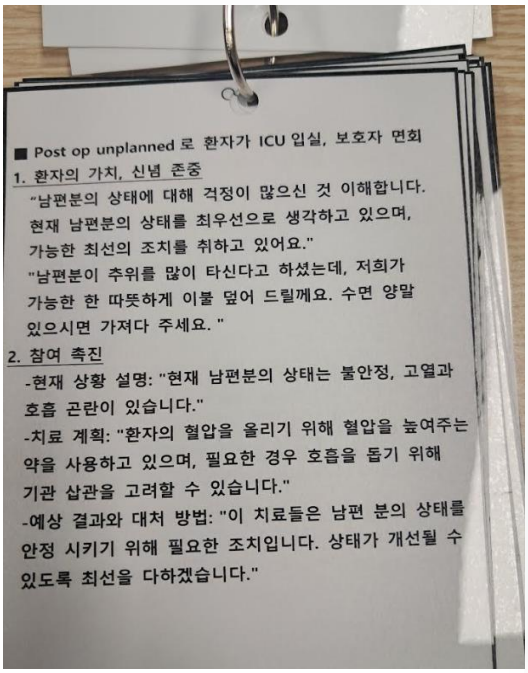
오늘 학습한 내용을 토대로 임상에서 환자-가족중심간호 실천을 위한 목표, 다짐을 포함한

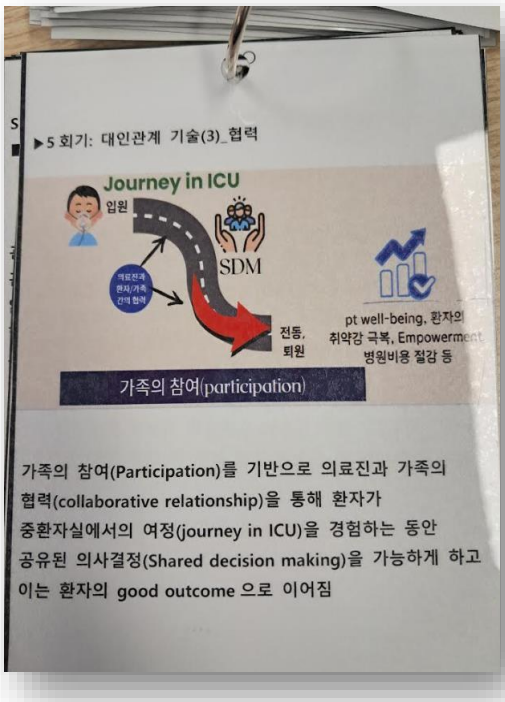
Action plan 작성

▶Action plan 1	
▶Action plan 2	
▶Action plan 3	

Appendix 12. Educational material (Cont'd)







Appendix 13. Group Interview

■ 좋았던 점	
근거 기반의 새로운 지식, 정보 습득	*"이러한 프로그램 개발에 이론이 명확하다는 것과 근거가 기반으로 개발되었다는 부분에서 계속 좋았고…"* *"의료진과 가족이 원하는 정보에 차이가 있을 수 있다는 연구결과 내용에서 많은 생각을 하게 되었고 기존에 생각하지 못했던 부분 이였는데 좀 충격적이였어요"* *"자기 감정을 인식하고 있어야 내 행동이나 감정이 잘 조절된다고 했잖아요 감정을 인식하는 게 중요하다는 그 부분에 대해서 사실 우리가 잘 인식하지 못했던 건데 자기 인식에 대한 중요성에 대해서 알게 됐다는 거죠."* *"이게 구체적으로 어떤 방식으로 수행해야 하는지 잘 몰랐고 사실 자기 인식 그런 용어들도 잘 몰랐는데 교육받고 나서 알게 되었고"* *"이런 교육을 받았다는 게 의미 있는 것 같아요."* *"청각이 남아있다라고 보호자에게 말은 했는데.. 그때 보여주신 연구결과가 저는 그렇게까지 영향이 있으리라고는 생각지 못했어요. 저는 충격적인 내용이긴 했거든요. 이렇게 교육 회기마다 우리가 접하지 못했던 새로운 내용들을 문헌을 기반으로 소개해 주고.. 그런게 참 좋았던 것 같아요."* *"저는 오히려 공유적 의사결정과 같은 부분들이 적용하기 힘든 게 우리나라 현실이지만 한편으로는 선진국 사례들 같은 거잖아요. 약간 현실의 벽 같은 게 있어서 좀 안타까우면서도 한편으로는 약간 저렇게까지 좋을 수도 있구나 그래서 알게 되고 우리가 지금 당장은 힘들지만 아무튼 지향점을 어디로 찍고 우리도 이렇게 갈 수도 있잖아요. 그래서 그런 것들은 접할 수 있어서 오히려 좋았어요."* *"지금 당장 적용하기 힘들어도 우리는 안돼 라고 하게 아니라 많이 봐두고 알고 배우는 게 좋은 것 같아요. 왜냐면 언젠가 임상에서 적용할 수 있는 기회가 있을 때 뭔가 아는 게 있어야 의견을 개진할 수 있으니까."*
나 스스로에 대한 성찰 및 태도 변화 계기	*"저는 살짝 그 공감해서 공감을 아까 말씀하신 것처럼 사실 뭉뚱그려서는 공감 해야지 라고 알지만 이렇게 인지적, 정서적, 표현적으로 나누고 그때 막 어떤 공감은 잘 되고 어떤 건 잘 안 되는 것 같냐고 물어봤을 때 저도 인지는 되는데 이제 정서적 공감으로 일부러 공감 피로가 느껴지니까 정서적인 것까지는 안 나아가고 그냥 인지에서 표현으로 그냥 바로 가게 되는 그런 경우가 많다는 거를 좀 더 인식하게 된 것 같아요"* *"사실 day근무가 아니면 저희가 면회가 하루 1번이니까 가족을 만날 기회가 거의 없고 가족에 대한 중요성을 거의 생각하지 않고 지냈는데 교육을 들으면서 가족들을 care에 참여시키고 함께 협력하는 그런 가족의 중요성에 대해 생각하게 된 것 같아요."* *"기계적으로 하는지 솔직히 아는데 어느 순간 조금 너무 정서적인 진짜 공감하는 거에 대한 부분을 많이 놓쳤구나를 많이 인식하게 해주는 것 자체에 되게 큰 의미가 있었던 것 같아요."* *"이전에는 제가 생각해도 환자나 보호자에게 좀 나쁘게 대하긴 했거든요. 근데 이 교육을 받고 배운 걸 항상 써먹으려고 그래도 한번씩은 노력했고 약간 환자나 보호자를 대하는 방식이나 그런 마인드가 좀 변화되는 걸 저 스스로도 느낄 수 있었거*

	든요.” *“저도 굉장히 원래 시니컬한 간호사였고 간호사로서 환자의 치료방향이나 이런거에 관심을 갖고 참여하거나 이런거에 회의적인 부분이 좀 많았는데 그래도 생각이 많이 바뀐 것 같아요.”* *“제가 전에 39병동에 파견 나간적이 있었는데 보호자분이 너무 힘들어서 환자를 죽여달라고 했을 때 저는 그때 너무 충격이었고 어떻게 해야 될지도 모르겠고 보호자분께 화내듯이 말씀드렸던 기억이 있어요. 이번 교육을 들으면서 그랬던 제 모습에 대해 고민도 해보고 보호자 입장에서 한 번 더 생각해 볼 수 있는 시간이어서 좋았던 것 같아요.”*
현실감 있는 사례 및 역할극 경험	*“사례 제시가 너무 적절했던 것 같아요. 진짜 중환자실에서 있을법한 내용을 예시로 다 들어주셔서 이해가 더 잘 됐던 것 같아요.”* *“교육받고 출근해서 환자를 봤는데 진짜 그런 사례에서의 환자를 경험하게 되고 …”* *“역할극도 가상으로 하는 연극이긴 해도 그런 사례에서의 환자나 보호자 입장에서 머릿속에 막연히 생각하는 것보다 직접 말해봄으로 훨씬 몰입해 볼 수 있었고 이렇게 해봄으로써 깨달은 바가 있어서 앞으로 어떻게 해야겠다 이런 생각이 들기도 하고요.”*
PFCC수행에 대한 동기부여 및 실천의 증가	*“늘 뭐라 해야지 해야 되는 건 알지만 어떻게 해야 될지는 잘 모르겠고 할 수 있는 지금 뭔가 바쁘고 똑같은 얘기만 앵무새처럼 계속 반복해 주고 있으니까 더 이상 말을 들어주고 이야기하는 게 의미가 없다고 느껴져서 그냥 한 번 얘기하고 포기해버리는 게 더 맞는데 그런 쪽으로 좀 동기부여가 됐었던 것 같은데”* *“전에는 보호자 면회 시 설명만 해주고 끝났는데 교육 후 질문을 던지게 되더라고요. 궁금한 사항 있으시냐 있으시면 언제든지 말씀해 주시라 이렇게요.”* *“면회 30분의 시간에 좀 더 보호자를 안심하게 하고 만족감을 주는 게 중요하겠다고 생각이 들어서 바로 임상에 가서 그런 부분을 하려고 노력을 했고”* *“사실 정확히 알지는 않고 그냥 잘 해줘야겠지 이런 생각만 하다가 이런 걸 이론적으로 배우고 그런 내용을 한번 해봐야겠다라는 동기부여가 됐다고 해야하나”* *“가족들한테 뭐 더 궁금한 거 있냐고 아니면은 환자 상태에 대해서 좀 더 잘 얘기해 주려고 노력하게 된 것 같아요.”* *“간호사의 한계나 이런 건 일단 제쳐두고 환자나 보호자에게 제가 지금 현 상황에서 할 수 있는 최선을 다한 것 같고 제가 아는 선에서 조금 자세히 정보 제공을 한다거나 정서적 지지를 한다거나 환자에게 안정감을 주려고 노력하는 그런 마음가짐을 가질 수 있게 된 시간이었던 것 같아요.”* *“이런 배운 내용들을 제가 있는 중환자실에서 모두 다 완벽하게 수행할 수는 없는 부분이 있기는 하지만, 그래도 제가 선택적으로라도 할 수 있는 것들이 생겼다는 게 좋은 것 같아요.”* *“제 좌우명이 영세주의자가 되지 말자였는데, 이번 교육을 통해 환자와 가족을 대하는 태도가 중요하다는 것을 다시 깨달았고, 더 열심히 노력해야겠다는 동기부여가 되었어요.”*

■ 아쉬웠던 점 및 보완이 필요한 부분

다소 많다고 느껴진 교육내용	*"교육이 짧게 하진 않았는데 어쨌든 충분히 다 흡수되지 않은 상태에서 다음 거 해서 약간 회기별의 차이점을 바로바로 인식하기 어려웠다는 점이 조금 아쉬웠던 것 같아요."* *"내용 목차만 봤을 때는 프렌들리 했는데 내용으로 들어가니 양도 좀 많고 무거운 느낌이.."*
실무 적용을 위한 시간이 더 많으면 좋을 것 같음	*"적용해 볼 수 있는 시간이 상대적으로 부족했던 것 같아요"* *"role-play가 잘 안된 것 같기도 해요"* *"role-play 나 그룹 discussion 이런걸 좀 더 길게해서.. 각자의 의견이나 생각을 공유할 수 있는 시간이 많아졌음 좋을 것 같긴 해요. 결국 나중에 많이 남는 건 내가 해봤다는 거… 자신의 경험을 서로 어떻게 나누는지가 중요하다고 생각을 해서요."* *"role-play나 group discussion을 통해서 그런 사례를 통해 어떤 모범답안이나 예시의 말들은 아무래도 임상에서 그래도 나오는게 아니니까 자신의 말로 연습해 볼 수 있는 시간들이 많으면 좋을 것 같아요. "*
줌 수업 시 집중도에서의 한계를 경험	*"실질적으로 대면 수업보다는 조금 집중도가 떨어지긴 한 것 같아요."* *"role-play나 discussion은 아무래도 이렇게 대면이 더 집중도 잘되고…"*
SDM의 실무 적용의 어려움	*"저는 5회기 SDM 할 때 그전에 수업 들으면서도 말했지만 한 번 제가 너무 involve 했다가 이게 트라우마 아닌 트라우마를 경험해서 엄청 보수적으로 바꼈거든요. 회진할 때 이런 내용들이 있어서 보호자한테 전달했는데 보호자가 엄청 Aggressive하고.. 근데 그 내용이 팀에서도 말할지 말지 고민하고 있었던 부분이더라고요. 또 공유적 의사결정이 뭔가 의사에 치우쳐져 있기도 하고 내가 뭘 할 수 있을까 해서 뭔가 공감이 좀 덜 됐어요."* *"SDM할 때 의사들은 이제 진짜 꼭 필요한 결정이면 다 보호자들 다 소환해서 하기도 하지만 근데 보호자들도 생업이 있고 하면 사실 한 번에 다 매번 오라고 할 수 없으니까 교대로 오다 보면 '가족들끼리 상의하고 결론만 알려주세요.' 이렇게 하게 되는 경우가 많은데 근데 SDM을 좀 더 간호사가 적용해서 각 보호자들과의 의사소통을 하면 가족 간의 협의를 이루는 거에 도움을 줄 수는 있을 것 같다는 생각을 했지만 쉽지 않은 것 같아요."* *"현실적으로 적용하기 어려운 부분들이 있다고 생각했다. 특히 공유적 의사결정처럼 사실 치료 뭐 그런 방식들을 결정하는데 간호사가 참여한다던지 솔직히 의사들도 저희 간호사들은 배제하고 환자나 보호자들한테 설명하고 그리고 의사결정할 때 사실 보호자들 참여시키는 것도 연명 치료 동의할거냐 말거냐 이거 말고는 특별하게 없는 것 같거든요."* *"어떤 시술 같은 거 할 때도 시술 먼저 하고 급하니까 그냥 나중에 동의서 받는 그런 의사들도 있어서 이런 공유적 의사결정이 잘 안이루어지고 적용하기도 쉽지 않은 것 같아요"*

프로그램 운영과 관련된 피드백	
■ 교육내용의 양	
단계 나누기	*"교육을 basic과 advanced로 나눠서 처음에는 완전 가볍게 왜냐하면 PFCC라는 용어나 개념을 처음 접하는 사람들한테는 처음부터 너무 많은 내용을 접하는 게 힘들 수 있으니까…"*
학습목표 간소화	*"학습목표를 3-4개에서 1개로 확 줄이고…"*
교육의 세분화	*"학습목표 여러 개를 각각 세분화해서 교육을 나누는 것도 좋을 것 같아요"*
■ 실무 적용을 위한 훈련의 시간 부족을 경험	
교육 전, 후 사례 적용	*"사례에 대해 role-play를 교육하기 전에 이 상황만 주어졌을 때 어떻게들 하고 있는지를 먼저 해보고 그러면 자기가 평소에 하고 있는 말들이 있을 거니까 그렇게 말할 거다 하고 교육을 받고 나면 같은 상황에서 내가 또 어떻게 말할지를 생각해 보면 조금 적용할 때 더 편할 것 같아요"*
이론 수업과 실무 적용 수업의 균형	*"이론수업 시간을 좀 가볍게 가고 Role-play시간을 더 많이 갖는 것도 좋을 것 같아요"*
	"이론 한 30-40분? 하고 좀 쉬었다가 30분 practical한 적용 부분 이렇게 조정하는 것도 괜찮을 것 같아요"
	"먼저 이론부분은 읽어 오라고 안내해서 예습하게 하고, 실제 이론수업때는 중요한 내용 위주로 강의해서 이론강의를 줄이고 뒤에 적용 부분을 늘리면 interaction할 수 있는 시간들이 더 많아질 수 있지 않을까(…)"
	"중 수업을 1시간 좀 compact하게 하고 대면수업을 2시간정도로 해서 그래서 그때 discussion이나 role-play를 대면 때 해보고 그래도 좋을 것 같아요."
사전 안내	*"내가 어떤 상황에서 더 화가 나고 이런 거를 수업 때 나누라고 하면 이때 별로 잘 안 떠오르거든요. 그래서 수업 전에 선생님 오늘 이런 거에 대해 생각해 볼 건데 미리 한번 생각해보고 오라고 하는 안내가 있으면 좋을 것 같아요"*
■ 기타 의견	
	"1시간 10분씩 6회기보다는 한번 교육할 때 2시간정도씩 하고 3회기? 이렇게 하는 것도 괜찮을 것 같아요" *"역할극 하는데 너무 뻔히 아는 사람들이니까 좀 뭔가 잘 안되더라고요"* *"전 오히려 잘 아는 사람들이라서 더 편했던 것 같아요. 모르는 사람이랑 하면 더 잘 못했을 것 같아요"* *"교육자료 뒤에 활동지가 몰아서 배치되어 있는데, 각 회기별 바로 뒤에 해당하는 활동지가 있으면 왔다 갔다 안해도 되고 편할 것 같아요"* *"모든 프로그램이 다 끝나고 하면 생각이 잘 안 날수도 있어서 각 회기가 마무리된 후에 회기별로 간단하게 좋았던 점이나 뭐 아쉬웠던 점을 말하게 해도 좋을 것 같아요"*

Appendix 14. Survey questionnaire

일련번호: _____

중환자실 간호사 대상 환자-가족중심간호 역량증진 교육 프로그램 개발

조사시점	중재 전
작성일자	

본 설문지는 귀하에 대한 대상자 중심 의사소통능력, 공감능력, 동료지지, 환자-가족중심 중환자 간호 수행수준 및 일반적 특성에 대한 문항으로 구성되어 있습니다. 응답하신 내용은 연구목적으로만 사용되며 비밀이 보장됩니다. 각 질문을 잘 읽고 해당되는 항목에 응답해주시기 바랍니다. 응답과정에서 피로감을 느끼실 경우 충분한 휴식을 취한 뒤 진행하실 수 있고 원하시는 경우 언제든 연구 참여를 중단하실 수 있습니다. 연구에 참여해 주셔서 진심으로 감사드립니다.

연구자: 주영신(연세대학교 간호대학 박사과정생)

Ⅰ. 중환자실 간호사의 대상자 중심 의사소통 능력

다음 문항은 '중환자실 간호사의 대상자 중심 의사소통능력'에 관한 질문입니다. 귀하의 의견을 가장 잘 반영하는 해당란에 (v)표로 기입하여 주십시오.

번호	문 항	매우 그렇지 않다	약간 그렇지 않다	보통이다	대체로 그렇다	매우 그렇다
1	의학적 치료/시술이나 간호학적 중재 및 절차에 대해 설명한다.	①	②	③	④	⑤
2	의학적 치료/시술이나 간호학적 중재가 필요한 이유를 설명한다.	①	②	③	④	⑤
3	원하는 정보를 확인하여 적시에 제공한다.	①	②	③	④	⑤
4	정보제공 후 대상자나 가족의 이해 정도를 확인한다.	①	②	③	④	⑤
5	질문할 수 있는 충분한 시간을 제공한다.	①	②	③	④	⑤
6	그들의 감정이나 요구, 의견 등을 자유롭게 표현할 수 있도록 개방형 질문을 사용한다. (예: 오늘 기분은 어떠세요?)	①	②	③	④	⑤
7	대상자나 가족이 질병 관련해 경험할 수 있는 감정에 대해 표현하도록 격려한다.	①	②	③	④	⑤
8	의사소통시 대상자와 가족들의 말을 적극적으로 경청한다.	①	②	③	④	⑤
9	대상자나 가족의 입장에서 그들의 상황을 바라보고 의사소통한다	①	②	③	④	⑤
10	나는 간호를 제공하며 느끼는 부정적/긍정적 감정을 동료 의료진과 소통하고 공유한다. (예: 의사, 동료간호사등)	①	②	③	④	⑤
11	대상자 또는 가족에게 도움을 줄 수 있는 부서나 타 기관을 소개한다. (예: 사회 사업팀, 간병인 협회, 심리치료 등)	①	②	③	④	⑤
12	치료적 중재를 수립하고 대상자와 가족의 이해를 돕기 위해 다학제 간 (의사, 영양사, 물리치료사 등) 협력한다.	①	②	③	④	⑤

Ⅱ. 공감능력

다음 문항은 '공감 능력'과 관련된 질문입니다. 귀하의 의견을 가장 잘 반영하는 해당란에 (v)표로 기입하여 주십시오.

번호	문 항	전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	매우 그렇다
1	나는 대상자에 대한 공감을 의사소통을 통해 표현할 수 있다	①	②	③	④	⑤
2	나는 대상자를 격려하는 의사소통 방법을 알고 있다	①	②	③	④	⑤
3	나는 대화할 때, 적절한 유머를 통해 대상자 를 기분 좋게 한다.	①	②	③	④	⑤
4	대상자는 나에게 질병에 관한 어렵고 힘든 감정에 대해 표현한다.	①	②	③	④	⑤
5	나는 간호를 통해 대상자가 어려움을 극복 하기 위한 힘을 주려고 노력한다.	①	②	③	④	⑤
6	나는 대화할 때, 적절한 비언어적 반응을 보인다.	①	②	③	④	⑤
7	나는 '대인관계 능력(환자, 동료 등)' 을 향 상시키기 위해 교육에 참석한다.	①	②	③	④	⑤
8	나는 대상자에게 필요한 정서적 지지를 적절하게 제공할 수 있다.	①	②	③	④	⑤
9	나는 대상자에게 상처가 되는 말과 행동을 조심한다.	①	②	③	④	⑤
10	나는 대상자의 말을 항상 경청한다.	①	②	③	④	⑤
11	나는 대상자가 도움을 요청하면 즉시 도와 준다.	①	②	③	④	⑤
12	나는 다른 사람의 의견에 관대한 편이다.	①	②	③	④	⑤
13	나는 대상자의 정서적 상태변화를 잘 알 수 있다.	①	②	③	④	⑤
14	나는 다양한 임상경험을 통해 대상자에 대 한 직관력을 가지고 있다.	①	②	③	④	⑤
15	나는 대상자의 특성을 고려한 개별화된 간호 를 제공한다.	①	②	③	④	⑤
16	나는 나의 개인적인 감정과 상황에 지장 받지 않고 환자 간호를 수행한다.	①	②	③	④	⑤
17	나는 대상자의 어려움에 대해 감정이입이 잘 되는 편이다.	①	②	③	④	⑤

* 하위영역
소통력(1-8 번 문항) 민감성(9-13 번 문항) 통찰력 (14-17 번 문항)

Ⅲ. 동료지지

다음 문항은 '동료지지'와 관련된 질문입니다. 귀하의 의견을 가장 잘 반영하는 해당란에 (v)표로 기입하여 주십시오.

번호	문항	전혀 그렇지 않다	그렇지 않다	보통이다	그렇다	매우 그렇다
1	내가 정말 도움을 필요로 할 때, 의지할 수 있는 동료들이 있다	①	②	③	④	⑤
2*	나는 다른 동료들과 친밀한 관계를 맺고 있지 못한다고 느낀다	①	②	③	④	⑤
3*	힘겨운 상황이 발생할 때, 나는 조언을 구할 수 있는 동료들이 아무도 없다	①	②	③	④	⑤
4	나에게 도움을 요청하는 동료들이 있다	①	②	③	④	⑤
5	나는 같은 친목활동(여가활동)을 즐기는 동료들이 있다	①	②	③	④	⑤
6	나는 다른 동료들의 안녕에 신경을 쓴다	①	②	③	④	⑤
7	나는 나와 같은 신념을 공유하는 동료집단의 일원이라고 느낀다	①	②	③	④	⑤
8*	무언가 잘못된 일이 생겼을 때, 아무도 나에게 도움을 주지 않을 것이다	①	②	③	④	⑤
9	나는 정서적 안정감과 행복감을 주는 친밀한 동료들이 있다.	①	②	③	④	⑤
10	나는 인생의 중요한 결정들에 대해 상의할 수 있는 동료들이 있다	①	②	③	④	⑤
11	나의 관심사와 걱정거리를 함께 나눌 수 있는 동료들이 있다	①	②	③	④	⑤
12*	자신들의 안녕을 위해 정말로 내게 의지하는 동료들이 없다	①	②	③	④	⑤
13	나에게 문제가 생긴다면, 믿고 의지할 수 있는 충고를 해 줄만한 동료들이 있다	①	②	③	④	⑤
14	나는 적어도 한 명의 동료와는 강한 정서적 유대감을 느끼고 있다	①	②	③	④	⑤
15*	도움이 필요할 때, 도움을 기대할 만한 동료들이 아무도 없다	①	②	③	④	⑤

16*	나의 문제에 대해서 마음 놓고 이야기할 만한 사람이 직장 내에 아무도 없다.	①	②	③	④	⑤
17*	나는 다른 동료들과 친밀감을 느끼지 못한다.	①	②	③	④	⑤
18*	내가 하는 일들을 좋아하는 동료들은 아무도 없다	①	②	③	④	⑤
19	긴급한 상황이 발생할 때, 내가 의지할 수 있는 동료들이 있다	①	②	③	④	⑤
20*	나의 보살핌을 필요로 하는 동료들은 아무도 없다	①	②	③	④	⑤

* 역문항

Ⅳ. 간호사의 환자-가족중심간호 수행수준 측정도구

다음 문항은 '환자-가족중심간호 수행수준'와 관련된 질문입니다. 귀하의 의견을 가장 잘 반영하는 해당란에 (v)표로 기입하여 주십시오.

번호	문 항	전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	매우 그렇다
1	환자와 가족에게 위로의 말과 행동을 전한다.	①	②	③	④	⑤
2	환자와 가족의 상황을 공감하려고 노력한다.	①	②	③	④	⑤
3	환자와 가족에게 치료적 접촉(예: 손잡아 주기)을 시도한다.	①	②	③	④	⑤
4	일상적인 주제(예: 뉴스, 취미, 관심사항)에 대해 환자 및 가족과 대화한다.	①	②	③	④	⑤
5	환자가 원하는 물건 반입을 허용한다.	①	②	③	④	⑤
6	환자가 원하는 오락 활동(예: 음악감상, 영상 시청, 독서)을 허용한다.	①	②	③	④	⑤
7	정해진 시간 외에도 필요하다면 가족 면회를 허용한다.	①	②	③	④	⑤
8	가족들이 환자 간호(개인위생, 식사)에 참여하는 것을 허용한다.	①	②	③	④	⑤
9	무의식 환자도 들을 수 있다고 생각하고 이야기한다.	①	②	③	④	⑤
10	말할 수 없는 환자에게 비언어적 의사소통을 시도한다.	①	②	③	④	⑤
11	가능한 범위에서 환자가 원하는 방식으로 대소변을 볼 수 있도록 허용한다.	①	②	③	④	⑤
12	CPR혹은 임종 시 주변 환자들이 불안하지 않도록 배려한다.	①	②	③	④	⑤
13	불필요한 소음(의료진의 잡담, 알람)이 발생하지 않도록 한다.	①	②	③	④	⑤
14	중환자실의 불쾌한 냄새를 줄이기 위해 노력한다.	①	②	③	④	⑤
15	밤에는 환자에 따라 조명을 조절한다.	①	②	③	④	⑤

Ⅴ. 일반적 특성

다음은 귀하의 '일반적 특성'에 관한 질문입니다. 해당하는 부분에 (v)표로 기입 혹은 해당내용을 작성하여 주십시오.

1. 성별 ① 여성 ____ ② 남성 ____

2. 연령 ( )세

3. 결혼 유무 ① 기혼 ____ ② 미혼 ____

4. 최종학력 ① 대학 졸업 ____
② 석사 재학중 및 졸업____ ③ 박사 재학중 및 졸업____

5 간호사 총 근무경력 (_____)년 (_____)개월

6. 중환자실 총 근무 경력 (_____)년 (_____)개월

7. 현재 근무부서 ① 내과계 중환자실 ( ) ② 외과계 중환자실 ( )
③ 심장 외과계 중환자실 ( )
④ 신경계 중환자실 ( ) ⑥ 응급 중환자실 ( )

참여해 주셔서 진심으로 감사드립니다. ♥

국문요약

중환자실 간호사 대상 환자-가족중심간호 역량 증진 교육 프로그램 개발

본 연구는 성인 중환자실 간호사를 대상으로 환자-가족중심간호 역량 증진을 위해 교육 프로그램을 개발하기 위한 방법론적 연구이다. ADDIE(Analysis, Design, Development, Implementation, Evaluation)모형을 활용하였으며 ADDIE단계 중 예비 교육 프로그램을 개발하고, 성인 중환자실 간호사를 대상으로 프로그램의 적용가능성을 평가하였으며, 최종 교육 프로그램을 도출하는 ADD(Analysis, Design, Development)단계까지 수행하였다.

본 연구에서의 개념적 기틀은 McCormack & McCance (2006)의 Person-centered nursing (PCN)이론을 기반으로 하였으며, PFCC수행에 필요한 간호사의 전제조건으로 전문적 역량, 자기인식, 가치와 신념의 명확화, 직업에 대한 헌신, 대인관계 기술, 그리고 돌봄 환경의 동료 지지와 중환자실 물리적 환경관리 역량을 포함하였다. 국내, 외 문헌을 통한 체계적 문헌고찰 결과와 중환자실 간호사 대상의 경험 및 교육 요구도 조사 결과를 통합하여 PFCC교육 프로그램 초안을 개발하고, 두 차례 걸친 전문가 타당도를 통해 수정 및 보완하여 예비 교육 프로그램을 완성하였다. 이후 성인 중환자실 간호사 12명을 대상으로 프로그램을 적용하였으며 교육 전, 후 대상자 중심 의사소통 능력, 공감 능력, 동료 지지, 환자-가족중심 중환자 간호 수행 수준을 측정하여 비교하였다. 교육 후 그룹 면담을 통해 좋았던 점, 아쉬웠던 점등을 확인하여 적용 가능성을 평가하였으며, 최종 PFCC역량증진 교육 프로그램을 도출하였다.

본 연구의 결과는 다음과 같다.

1. 성인 중환자실 간호사 대상 PFCC교육 프로그램은 총 6회기, 회기당 90분, 4주간의 프로그램으로 최종 개발되었다. 교육 내용은 PFCC수행을 위한 간호사의 전문적 역량, PFCC실무자로서의 자기인식, 자신의 신념과 가치에 대한 인식과 이를 실무에서 조화롭게 적용하기, PFCC수행에 대한 열정과 다른 역할 갈등 사이에서의 조화를 이룰 수 있는 역량, 환자 및 보호자와의 효과적인 의사소통 기술, 공감 역량, 협동을 증진시킬 수 있는 역량, 중환자실의 물리적 환경관리 및 동료 지지로 구성되었다.

2. PFCC역량증진 교육 프로그램은 성인 중환자실 간호사 12명을 3그룹으로 나누어 제공하였으며 설문조사와 그룹 인터뷰 실시 결과 프로그램의 적용 가능성이 확인되었다.

1) SPSS WIN 26.0 프로그램을 통해 교육 전, 후 대상자 중심 의사소통, 공감, 동료 지지, 환자-가족중심간호 수행 수준을 분석한 결과 모든 변수에서 교육 후 점수의 증가가 관찰되었다.

2) 교육 후 인터뷰 결과, PFCC 관련 지식과 이해가 증가하고 동기 부여가 되었다는 긍정적인 피드백이 확인되었으며, 실무 적용을 위한 역할극 및 그룹 토론 시간에 대한 더 많은 시간이 확보했으면 좋겠다는 의견이 제시되었다.

이상의 연구결과를 종합해 볼 때, 본 연구를 통해 개발된 중환자실 간호사 대상 PFCC역량증진을 위한 교육 프로그램은 간호사의 전문적 역량, 자기인식, 신념과 가치의 명확화, PFCC열정과 다른 역할 간의 균형, 공감 능력, 환자, 가족과의 의사소통, 협동 역량, 물리적 환경관리 및 동료 지지를 포함하여 체계적으로 구성되었다. 또한, 중재 전후로 대상자 중심 의사소통 역량, 공감 역량, 동료 지지, 그리고 환자-가족중심 간호 수행 수준이 향상되었으며, 참여자들을 통한 교육 후 PFCC에 대한 이해와 실천에 대한 동기부여가 증가하고 행동 변화가 유발되었다는 긍정적인 피드백을 확인하였으며, 이를 통해 프로그램의 적용 가능성을 확인할 수 있었다.

본 연구 결과는 향후 중환자실 간호사를 대상으로 PFCC교육 프로그램의 효과 검증 연구에 기초자료로 활용될 수 있으며, PFCC역량강화를 위한 지속적인 교육 및 훈련 프로그램으로 확대 시행될 수 있을 것이다. 이를 통해 궁극적으로 환자와 가족의 긍정적인 간호 경험과 만족도 증가, 환자-가족중심 간호 문화 형성에 기여할 것으로 기대하는 바이다.

핵심 되는 말: 환자-가족중심간호, 교육 프로그램, 간호사, 중환자실, 간호사 역량