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Critical Care Nursing Instructors' Perception of Clinical Education Competencies: A Qualitative Study

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ABSTRACT

Clinical education competencies are among core requirement for critical care nurse instructors, contributing toward better learning outcomes for students in clinical settings. Awareness of nursing instructors' perceptions is essential for designing professional nursing development programs. This study explored critical care nursing instructors' perceptions of the essential competencies for clinical education. A qualitative design based on the content analysis approach, was used. Fifteen critical care nursing instructors from Lorestan University of Medical Sciences were selected via a purposeful sampling method. Data were collected using a semi-structured, in-depth interview method. The interviews were recorded, transcribed verbatim, and analyzed using Graneheim and Lundman methods. Analysis of data identified four main categories and eight subcategories. The main categories included (I) tasks-oriented education, (II) guiding and supporting nursing students, (III) organizing communication skills, and (IV) professional-ethical role modeling. Although academic clinical faculties and part-time critical care nursing instructors reported a high level of knowledge and confidence in their ability to establish communication skills, role modeling, and nursing students' supervision; part-time critical care nursing instructors also identified the need for additional support for their clinical teaching roles. They were not prepared enough for clinical teaching; their perception of clinical educational skills was task-oriented education. The development, implementation, and evaluation of a curriculum based on clinical competency with structured mentoring processes for part-time critical care nursing instructors are recommended to meet the knowledge gap created.

Keywords: Clinical Competence; Critical care; Nursing Instructors; Clinical Education

Introduction

In the past few decades, higher educational contexts have experienced a growing call for competency-based education [1]. The advances in medical sciences, the increasing numbers of nursing students, the high expectations of education and health systems, and the transfer of educational systems from hospital-based models to higher education institutes necessitate the development of the professional competencies of Clinical Nursing Instructors (CNIs) [2].

Competence is a complex concept in nursing generally and not just in specialized domains of nursing such as intensive and critical care. Empirical research is also lacking in this field [3]. Nursing competency refers to a person's ability to perform nursing duties effectively to integrate knowledge and emotional and psychomotor skills in nursing care [4]. Clinical education competencies are a core requirement for CNIs, contributing toward better learning outcomes for students in clinical settings [5]. CNIs improve students' knowledge, attitude,

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and psychomotor skills for professional practice so that the success of clinical education and the quality of nursing care are associated with nursing instructors' competency level [6].

The World Health Organization (WHO) identified the core competencies of nursing educators for developing nursing education in 2016 [7]. The National League for Nursing (NLN) has proposed eight main competencies for nursing educators [8]. The core competencies expressed by WHO and NLN focus on the normative standards for the role of nursing educators. These competencies are common to all nursing educators and are not specific to critical care nursing instructors (CCNIs). It is a fact that the importance of caring education in critical care units is related to ensuring safety and, most of all, quality to achieve the best care results with the available scientific evidence. This also guarantees an improvement in how patients and families regard the care they receive, as professionalism is shown through the patient care carried out in a specific environment [9].

Recent systematic reviews have shown that CNIs' competencies are complex and constantly changing according to the organizational and political structure of the health care system in place [10]. In a qualitative study with the grounded theory approach, researchers identified five key characteristics of effective clinical instructors: personality traits, meta-cognitive traits, creating a pleasant clinical setting, and being a source of support and role model [11]. The reviewed studies have mostly focused on the characteristics and feelings of clinical instructors, while competency determines the development of behavioral traits in individuals.

The result of a study in Iran has revealed that one of the most critical students' clinical learning challenges is the incompetency of CNIs, including insufficient scientific and practical preparation, insufficient clinical caring, and insufficient approach in using teaching and assessment strategies that affect students' learning experiences [12]. According to the American Association of Colleges of Nursing (AACN), the most important factor attributed to this issue is a shortage of competent educators to teach in nursing schools, which is three times worse in the clinical setting than in the classroom [13]. Therefore, one of the innovative strategies for filling the nursing educator's job vacancies has been to employ part-time to educate students in clinical settings [14]. Part-time CNIs need teaching competencies to support students in experimental and situational learning in clinical settings [13]. However, they are unprepared to participate in clinical education [14].

Studies have shown that clinical education needs more theory and practical education. The most important cause of this gap is CNIs' lack of competency and their inadequate perception of clinical education and methods of evaluating nursing students' clinical performance [15].

Instructors' experience and perception of their competencies affect students' clinical education as an essential aspect of nursing education and also provide an opportunity for CNIs to acquire clinical education competencies [1]. The main factor involved in the effectiveness of clinical education is the context in which it takes place, and the importance of context in nursing and its impact on competence have been identified by many researchers [16]. This study aimed to describe CNIs' perception of their competencies in clinical education. The results of this study have two important outcomes. First, we inform CCNIs of their clinical education competencies to enhance students' learning. Second, by determining the competencies of CCNIs in context and literature review, the authors of this study designed a competency-based curriculum for CCNIs in Iran [17].

Materials and Methods

A conventional qualitative content analysis method was used to explore the experiences of CCNIs of clinical education competencies. A qualitative study to discover participants' experiences in natural environments, rooted in critical realism, that is, searching for real

knowledge embedded in participants' ideas and perspectives [18]. Content analysis is used as a research method for the subjective interpretation of textual data content through a regular classification process of coding and identifying subcategories and categories by immersion in the data to achieve new insights [19].

This study was performed in two educational hospitals affiliated with Lorestan University of Medical Science (LUMS) in Iran. In this context, we categorize the individuals engaged in clinical instruction into two groups: academic clinical educators and Nurse clinicians. Academic nursing educators who work for an educational institution provide direct or indirect supervision and evaluation of students in the clinical environment. They do not have enough time to provide clinical education to students. Most of them also teach theoretical courses and research activities. To compensate for the shortage of nursing faculty members, educational institutions hire nurse clinicians with bachelor's or master's degrees in nursing for clinical teaching. A nurse clinician has one to several years of clinical experience in critical care. They are being recruited for clinical teaching students in time slots other than their work shifts on a temporary, semester-to-semester contract basis. They are commonly known as part-time CCNIs.

The participants included 15 CCNIs (five males and ten females), ranging in age from 28 to 50 years and with an educational experience of two to 24 years from the School of Nursing and Midwifery at Lorestan University of Medical Sciences. Five instructors had a PhD in nursing, and 10 had nursing bachelor degrees. Purposive sampling was performed with maximum variation in age, sex, and educational and clinical experience at different academic levels; consequently, the inclusion criterion for the CCNIs was having at least two years of critical care clinical education experience.

Semi-structured interviews were held from October 2019 to February 2020 to collect data based on the study objective. The interviews were conducted individually, with the participants' agreement, in a private room at a predetermined time. The interview questions included the following:

1. As a CCNI, what competencies do you apply to play your role in clinical education?

2. Please describe your feelings and perceptions about the clinical education role.

The interviewer probed participant responses using questions or statements, such as "Please elaborate" and "What do you mean?" to explore participants' learning experiences. Totally, 15 interviews were conducted. The interviews were recorded and transcribed verbatim, and each interview lasted 45-80 minutes (60 minutes on average).

Data were analyzed using conventional content analysis according to the proposed steps of Graneheim and Lundman [20]. The analysis phase began simultaneously with the initial data collection. The researcher listened to each interview to immerse in the data and get a general sense of the content. Each interview was coded line by line, and subsequent interviews were conducted. By coding, semantic units were extracted from the participants' statements. Subcategories were obtained based on the similarities and differences of the codes. By constant comparing, the subcategories were merged, and the main categories were extracted from the analysis and interpretation of this data.

The Lincoln and Guba criteria for establishing the rigor of qualitative studies were used in this study [21].

The credibility of the study was approved through peer checks and member checks. A peer check was used to consolidate the credibility of the analysis process. The research team members independently analyzed the interviews, compared the concepts, categories, and themes, and discussed the issue to reach an agreement in the case of disagreement. A member check was also used to consolidate the credibility of the data. After analyzing each interview, the participants were briefed on analyzing the data and findings. They were asked to examine whether the developed concepts reflected their experiences or ideas.

Finally, their comments and suggestions were incorporated into the analysis.

To ensure the confirmability of the findings, the initial results and the analysis of the findings were presented and revised in a seminar with the research team and some nursing faculty members as referees familiar with qualitative research approaches. Dependability indicates that the findings are accurately aggregated and unaffected by the researchers' errors or interests.

In this study, the methods of data collection, interviewing, coding, analyzing, and identifying the content were accurately stated to be judged correctly by the external audit. Finally, transferability was approved in this study through detailed and profound descriptions of the context, presenting the necessary explanations about participants' perceptions, and using maximum variation sampling methods.

Ethical Consideration

This study was confirmed by the Ethics Committee of Tarbiat Modares University (Code: IR-TMU.REC.1396.728). All the participants were informed about the study's aim. They were assured that participation in the study was voluntary and that their identities were not being disclosed in the research reports. For this reason, a numeric code was assigned to each participant. Finally, the consenting participants signed a written consent form.

Results

Following content analysis, four main categories were identified, along with eight subcategories (Table 1).

Tasks oriented education

Tasks-oriented education is a practical method to strengthen students' psychomotor skills that focus less on educational goals in the cognitive and emotional domains. Most of the part-time CCNIs expressed that one of the most common reasons for tasks-oriented education is the lack of preparation programs in clinical teaching. They emphasized a "task-centered" approach to care rather than a "patient-centered one." CCNIs mostly teach tasks and procedural skills to students, which are important outcomes of students' clinical education. They did not use the nursing process in clinical education and were incapable of doing so. Also, this method differed from the basis of nursing care provision in the clinical settings of this context. A CCNI reported:

"Based on the student's interest, I teach clinical procedures (for example, bedsore care) step by step using a standard checklist. Students find patient care based on the nursing process an excessive and difficult task because their role models are the nursing staff, who are tasks-based" (Part-time CCNI 2, BSc in nursing).

Table 1: Competencies of critical care nursing instructors: Categories and subcategories

Categories	Subcategories
Tasks oriented education	• Lack of clinical education development programs • Inappropriate learning climate
Support and guidance for students	• Assisting students during clinical practice • Providing effective feedback
Organizing communication skills	• Inter-personal communication skills • Professional inter-personal skills
Professional-ethical role modeling	• Ethical role modeling • Professional value role modeling

Support and guidance for students

CCNIs' perception of clinical education competencies, guiding and supporting students through providing effective feedback and assistance during clinical practice. They believe assisting in clinical settings promotes learning and enhances students' self-confidence and independence. In this regard, a participant said:

"First, I perform special and sensitive procedures of patient care myself, and the students observe my performance; then, they perform the clinical procedures themselves; I monitor and encourage their positive performance to boost their self-confidence and make them independent in their learning activities" (Part-time CCNI 9, BSc in nursing).

Also, CCNIs reported that providing feedback to students about their performance in a timely and regular manner was an effective feedback strategy. It supports the students toward good clinical practice. In this regard, a participant adds: "*Feedback immediately after each procedure and without the nursing staff, patients and patient companions noticing will help the students develop self-esteem and enhance their learning of clinical skills"(*Critical care nursing faculty*16, PhD in nursing).*

In support, another participant stated:

*"Feedback should be given clearly after every clinical practice, which will help the student learn clinical procedures and avoid further mistakes and harm to the patient" (*Part-time CCNI *14, BSc in nursing).*

Organizing communication skills

CCNIs' perception of communication competence included interpersonal and professional interpersonal skills. They described open, honest interpersonal skills with students as essential facilitators in students learning. One Part-time CCNIs describe: *"The first day of clinical education is orientation day. I communicate respectfully with students, Introducing the students to the clinical setting, equipment, personnel, and internship rules"* (Part-time CCNI 4, BSc in nursing).

CCNIs stated that teaching students about honest interpersonal skills with clients and the health care team will lead to better patient care and the development of a care plan for them. A participant state*d, " Teaching students about therapeutic communication with patients leads to identifying patients' needs and designing a care plan based on their needs"* (Critical Care Nursing faculty14, PhD in nursing).

The part-time CCNIs, who belonged to the same clinical units, considered clinical experiences the most important factor in communicating with the healthcare team. They believed that good communication with the care team led to students' acceptance and greater staff cooperation in the student's clinical education. In this regard, a participant said*, "... I am an experienced clinical nurse and belong to the same clinical setting, so it is easier for me to communicate with the nursing staff and the healthcare team in the area of work*" (Part-time CCNI 5, BSc in nursing).

The other participant said*: "Communicating with the nursing staff will lead to a positive attitude towards me and my students, which will subsequently increase the efficiency of the internship"* (Part-time CCNI 1, BSc in nursing).

However, academic clinical educators viewed scientific expertise as the most important factor in their communication with the healthcare team. One academic clinical educator described her experience as: *"I can communicate with the nursing staff by sharing knowledge on updated topics concerning the provision of nursing care to patients"* (Critical Care Nursing Faculty 17, PhD in nursing).

Professional-ethical role modeling

Role modeling is one of the hallmarks of instructors' competencies in clinical practice to convey professional attitudes and behaviors to students. CCNIs reported that they were functioning as a role model for the students. They believed that having passion and a positive attitude toward the nursing profession is very important for students' interest in it. A participant stated: *"I take care of the patients with passion and enthusiasm; I consider the patients part of*

my family. I believe that convey the perception and mindset about my profession to the students" (Critical care Nursing faculty 18, PhD in nursing).

CCNIs reported that clinical education through role modeling profoundly promotes the students' professional values and ethical features by observing their behavior. They acknowledged that nursing students learn professional values such as accountability, professional commitment, respect for the patient's beliefs and values, and maintaining confidentiality in caring for the patients by modeling after their clinical education.

Academic clinical educator states:

"If I demonstrate respect to the patient's beliefs and values, students would naturally behave similarly to those people" (Critical care nursing faculty 15, PhD in nursing).

A participant explained:

"At the end of the internship hour, I realized that the patient's IV line was broken; although the internship time was over, I stayed with the student to replace the patient's IV line so that the student would learn responsibility and professional commitment" (Part-time CCNI 10, BSc in nursing).

Discussion

Clinical education provides an opportunity for nursing students to apply theoretical knowledge in real settings [22], so it is important to pay attention to CCNIs' perceptions of clinical education competencies.

The findings of this study showed that expert nurse staff as part-time CCNIs used tasks-oriented education to provide clinical education to students. Although part-time CCNIs may be experts in clinical practice, it does not mean they are proficient in clinical training. They need various educational skills during the transition to CCNI [23]. A study showed that less than half of the CNIs knew themselves as qualified clinical teaching educators. The study's findings by Sadeghi et al. revealed that many CNIs considered clinical education a series of routine tasks that needed to meet students' educational outcomes [24]. Clinical education based on the nursing process enhances students' critical thinking in care based on a client-centered approach. This needs to be addressed, and the nursing process is a standard of nursing care not performed in Iran and some other countries. They found that there were factors, such as not having a better understanding of the nursing process, absence of a care program in the ward, lack of sufficient staff, and limited time to use the nursing process [22, 25].

Nonetheless, the clinical nursing faculty used effective modern methods, such as holding conferences and case-based education. These methods are considered a creative strategy for facilitating nursing students' education that enhances their skills in nursing care delivery [26]. The study's results by Gholami et al. show that case-based learning is a desirable experience for nursing students that strengthens critical thinking skills and helps students acquire professional skills by creating a desirable learning environment [27]. Obviously, to achieve these competencies, upgrading the instructors' knowledge base and applying active teaching methods can be effective in their personal promotion and the enhancement of the quality of clinical education. Therefore, academic level is a factor that positively influences the nurses' instructor's perception of their training.

Another finding of this study showed that CCNIs support students through direct guidance and providing effective feedback during clinical procedures to help students achieve learning outcomes, which is consistent with a previous study [28]. Proper feedback as a facilitator of students' learning is essential for successful clinical education, error reduction, and patient safety guarantee [29]. In this study, part-time CCNIs' perception of clinical education was task-oriented; therefore, they provided effective feedback to students during clinical practice to achieve this outcome.

Clinical support increased the students' motivation, reinforced their professional identity, improved their attitude toward the profession, and accelerated their socialization

process [30]. However, researchers in another study found that CNIs do not support and guide students in clinical settings, which hurts their clinical skill learning, motivation, and attitude [31]. These differences could be due to differences in the concept of support in studies. The main reason for the support and guidance of instructors for the student's learning in this study was the continuous presence of instructors to supervise the students in clinical settings. The category of support and guidance for students in performing clinical procedures also endorses task-oriented education.

Another competence of nursing instructors is communication skills, including interpersonal and professional interpersonal skills. A literature review showed that the ability to develop interpersonal relationships with students was the most valuable competence for clinical nursing instructors, which led to a positive clinical learning environment [32]. Interpersonal relationships with students lead to their achievement of learning outcomes and the satisfaction of the students [33].

In this study, most CCNIs were expert clinical personnel who belonged to the clinical setting, thus, more efficiently communicating with the healthcare team. Communicating with nursing staff increases students 'learning, motivation, and self-confidence. Poor communication with the healthcare team hinders nursing instructors' achievement of clinical education objectives and leads to distrust of the nursing staff by the nursing students [14]. The WHO also stressed that health science teachers should communicate effectively with the healthcare team to promote interdisciplinary collaboration in health and education care [7].

Academic clinical educators also shared their specialized knowledge with the healthcare team. Similarly, in the study by McSharry et al., CCNIs were a source of learning for the nursing staff. They informed nursing staff about evidence-based nursing care, which helped their acceptance and credibility in clinical settings [34]. Therefore, educational institutes should pay attention to two characteristics, namely their scientific expertise and clinical experience, when hiring CCNIs.

The participants considered professional-ethical role modeling as one of their competencies for transferring experiences, attitudes, and professional values to the students. The results of a systematic review showed that ethical aspects were considered the most important elements of the competence of health science educators [10]. In clinical settings, instructors have two essential roles: One as a good nursing role model and another as a good teaching role model. In fact, instructors are simultaneously committed to the professional roles of nurses and teachers [35]. The lack of role models can increase stress and dissatisfaction among nursing students in educational and clinical settings [36]. Educators' ethical competence significantly affects students' experience of teaching [37]. In this study, nursing educators emphasized their ethical characteristics and professional values as student role models. Nursing instructors in this context are Muslim. The Quran, Muslims' Holy Book, has also stressed the importance of role models in dimensions of spirituality and ethics. All of the participants shared their experiences about competencies for clinical education. Educational systems vary from country to country; therefore, the present findings cannot be generalized to international educational contexts. Nonetheless, clinical educators from other countries are expected to share the challenges identified in this study to find appropriate interventions in their curricula for students' clinical education in clinical settings.

Conclusion

This study provided insight into the perception of CCNIs about their competencies in clinical education as they experienced and expressed them. The findings are valuable in identifying the requirements to improve CCNIs' competence by helping educational managers improve educational standards. This study has contributed to evidence-based

knowledge through an accurate qualitative method, which should facilitate educational structures to meet the changing needs and improve educators' practices, environments, and effectiveness.

Although academic clinical faculties and part-time CCNIs reported a high level of knowledge and confidence in their ability to establish communication skills, role modeling, and support nursing students, Part-time CCNIs also identified the need for additional support for their clinical teaching roles. They were not prepared enough for clinical teaching roles; their perception of clinical educational skills was task-oriented education. There is a need to support continuing education and training in a targeted manner. According to the results of this study, it is recommended that the development, implementation, and evaluation of a competency-based curriculum with structured mentoring processes for CCNIs be developed to meet the knowledge gap created. Second, nursing education institutions shall employ a mentor with educational and clinical experiences to prepare part-time CCNIs for the roles and responsibilities of clinical education according to the designed programs.

Conflict of Interests

Authors declare that they do not have any conflict interests.

Abbreviations

Clinical Nursing Instructors (CNIs)
Critical care nursing instructors (CCNIs)
World Health Organization (WHO)
National League for Nursing (NLN)
American Association of Colleges of Nursing (AACN)

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