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# Exploring the Lived Experiences of Post-Basic Nursing Students: Insights into Continuous Learning

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#### **ABSTRACT**

Continuous learning in clinical settings is essential for optimum quality of care. This study examines the lived experiences of post-basic nursing students specialising in critical care, emergency care and perioperative care in a tertiary university hospital. Using a descriptive phenomenological approach, three focus group interviews were conducted with 23 purposively sampled post-basic critical care nursing students. Four overarching themes emerged from the data analysis: 1) the programme's benefits to students, 2) feedback on programme implementation, 3) avenues for future improvement and 4) challenges encountered during the programme. The findings emphasise the critical role of ongoing education in clinical contexts, particularly in post-basic critical care nursing education. Students' lived experiences underscore the programme's positive effects on their knowledge, skills and organisational benefits, emphasising the crucial role of continuous education in enhancing the quality of nursing care. The identified themes offer valuable insights into the advantages, obstacles and areas needing improvement in post-basic critical care nursing education. They showed the importance of a sustained commitment to continuous learning to ensure the delivery of high-quality care in clinical practice. This study contributes to the existing body of knowledge on nursing education and offers valuable insights for educators, administrators and policymakers to optimise the training and development of nurses to achieve quality patient outcomes.

**Keywords**: Critical care nurses, post-basic, experience, continuous learning

#### CORRESPONDING

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#### INTRODUCTION

In the dynamic landscape of healthcare, continuous learning among nursing professionals is paramount. Post-basic nursing education programmes are of utmost importance because they provide nurses with advanced knowledge and skills tailored to specialised areas, such as critical care, emergency care and peri-operative care. Understanding the lived experiences of post-basic nursing students within these programmes offers valuable insights into the efficacy of existing educational approaches and pinpoints opportunities for enhancement to optimise the outcomes of patient care.

As the complexity of healthcare delivery has increased, nursing education has undergone substantial development over time. By cultivating a culture of continuous learning and professional development, post-basic nursing programmes provide registered nurses with the chance to enhance their proficiency in particular clinical domains. To equip nurses to deliver specialised care to patients with complex conditions, these programmes are specifically developed to improve clinical competence, critical thinking abilities and decision-making skills.

Nurses employed in critical care settings must possess additional qualifications to deliver high-quality, evidence-based healthcare to extremely vulnerable, critically ill patients. Assessing the proficiency of critical care nurses (CCNs) is quite challenging because it requires evaluating their knowledge, clinical skills, curriculum offerings and study duration (1,2). A comprehensive portrayal of the competencies of postgraduate CCNs should encompass the capacity to effectively express proficient clinical skills and knowledge levels while facilitating the quantification of competence. Assessing the proficiency of CCNs also involves clinical instructors or preceptors, nursing lecturers and other individuals who provide support to the system. This exemplifies the shared objective and essential competencies that align with prevailing national evidence-based guidelines and critical care practices (3). Therefore, this study categorised critical care nursing education as a specialised certification at the postgraduate level and focused on emergency, perioperative and critical care.

Discipline-oriented and professionally oriented nursing education is imparted and merged into the professional practice domain, equipping CCN students to execute their roles. The specialisation of a nurse practitioner in critical care can vary depending on their training and experiences. Patients' expectations of being cared for by a caring, competent and professional nurse are pertinent to the current health and social care practice (4). In critical care, advanced cases need precision, complex decisions and advanced skills in handling the situation. Thus, discipline-oriented nursing education in the field of professional practice is essential to emphasise this aspect.

Although the significance of post-basic nursing education in promoting optimum nursing care is acknowledged, there is still a lack of comprehension regarding the actual educational experiences of nursing students who are enrolled in these programmes, especially in specialised fields, such as critical care, emergency care and peri-operative care. Although the current body of literature offers valuable information on the results and efficacy of post-basic nursing education, there is a lack of research that looks into the detailed experiences of students experiencing this kind of training, especially in new teaching hospitals.

This study aims to address the gap by examining the lived experiences of post-basic nursing students enrolled in critical care, emergency care and peri-operative care programmes. Gaining insight into the viewpoints of nursing students can provide valuable guidance for designing

curricula, teaching methods and support systems in advanced nursing programmes. This, in turn, improves the overall quality of education and equips nurses with the necessary skills to deliver holistic care. Furthermore, the knowledge acquired from this research can assist healthcare organisations and policymakers in devising strategies to enhance ongoing professional development among nursing practitioners, thereby enhancing overall patient outcomes and the delivery of healthcare.

## **METHODOLOGY**

# **Study Design and Sample**

This study used a descriptive phenomenological methodology to investigate the personal experiences of post-basic critical care nursing students. This is to obtain a deeper understanding of how these students engage in continuous learning and improve patient-centred care throughout the course of their studies. Phenomenology is an academic discipline that focuses on the examination of consciousness. It is based on the experiences and perspectives of humans, whose realities are inherently subjective and directed towards a specific object or aim (5).

This study included 23 post-basic critical care nursing students from three sub-specialties: emergency care (5 participants), critical care (8 participants) and peri-operative care (10 participants). The participants were chosen using purposive sampling, which is a deliberate and non-random method of selecting participants who have features or experiences that are relevant to the research topic. Participants were selected based on their enrolment in post-basic critical care nursing programmes, and their experiences were guaranteed to yield important insights into the phenomenon being studied.

## **Data Collection**

A qualitative approach, specifically inductive methodology, was used in this study from January to March 2023. Three focus group interviews were conducted, with each interview consisting of a subgroup of the 23 nursing students sampled. Focus group interviews are a method of collecting qualitative data in which participants engage in open conversations and share their viewpoints, experiences and ideas in a group setting. This enables the examination of collective experiences and the production of comprehensive, contextualised information.

The focus group interviews were conducted in a comfortable and flexible environment that facilitated open communication. A semi-structured interview guide was used to maintain uniformity while also allowing for the adaptability and investigation of developing themes. The interview guide comprised open-ended inquiries specifically designed to extract participants' ideas regarding their experiences in post-basic critical care nursing education. Each session lasted from 30 minutes to 1 hour. The sessions were recorded and subsequently transcribed using an audit trail. The data interpretation procedure encompassed an in-depth representation of the subject matter, environment and non-verbal reactions of the participants, including vocal intonation, physical gestures and facial expressions.

# **Data Analysis**

The process of data analysis was conducted methodically and iteratively based on the principles of descriptive phenomenology. The descriptive phenomenological data analysis approach developed by Giorgi, which consists of several steps (6,7,8), was used. The subsequent procedures were used for the data analysis. In step 1, the transcripts were thoroughly examined multiple times to gain a comprehensive understanding of the content and the participants' perspective on the event. In step 2, the researcher carefully reviewed the transcripts once more and identified meaningful segments in which the participants' words and expressions were singled out without being detached from the overall context, thereby maintaining proximity to the original data. In step 3, the initial semantic components were converted into explicit expressions that emerged within the framework of the essential clinical learning experience. In step 4, the modified semantic units were continually scrutinised in connection with the study topic to guarantee their suitability for the given context. In step 5, these expressions were examined to establish a fundamental framework for the actualised encounter of post-basic CCN students in their clinical learning experience. The data processing process was facilitated using Atlas-Ti software version 10.15. A consensus meeting was conducted with an experienced qualitative researcher to validate and improve the data analysis.

#### **Trustworthiness**

Several strategies were used to enhance the trustworthiness and rigour of the study. As described by Lincoln and Guba in 1985 (9), the study provided a detailed description of the setting and characteristics of the sample, along with the inclusion of direct quotations when discussing the results. Dependability was demonstrated through the maintenance of an audit trail, the establishment of an agreement with an independent coder regarding the structure of the experience and the meticulous replication of the process in a step-by-step manner. Confirmability was established through the use of verbatim quotations, comprehensive methodological explanations and reflection.

#### **Ethical Considerations**

All participants provided their informed consent, and measures were taken to guarantee confidentiality and anonymity. The study obtained ethical approval from the International Islamic University Malaysia Ethic Research Committee (IREC 2021-098) and the Sultan Ahmad Shah Medical Centre (SASMEC @IIUM).

#### **FINDINGS**

The demographic information of the participants is presented in Table 1. Among the 23 participants, 10 were from perioperative care, 8 from critical care and 5 from emergency care. The participants' age range was 25–33 years. The participants consisted of registered staff nurses who had a minimum of two months to over 18 years of work experience. The data obtained from the interviews underwent thematic analysis, resulting in the identification of four primary themes: benefits of the programme to students, feedback on the implementation of the

programme, challenges during the programme and future improvements. The study's themes and subthemes are outlined in Table 2.

## Theme 1: Benefits of the Post-Basic Programme

The benefits of the post-basic programme refer to the advantages and positive outcomes that the participants experienced from engaging in educational courses or practical sessions after completing basic nursing education. The participants expressed satisfaction with the enhancement of their knowledge, particularly through theoretical learning before practical implementation. It helped the participants overcome the limitations in their skillset, empower them with practical expertise essential for their roles and enhance their decision-making capacities. The participants observed tangible improvements in their job performance following the completion of the programmes.

## **Knowledge improvement**

The participants were pleased with the knowledge enhancement, particularly the theoretical portion, before the implementation in their clinical session.

> It enhances our knowledge and skills because during the programme, we met senior staff and junior staff... it gives staff a chance to gain new knowledge. (NR, emergency staff)]

> I don't have an ICU background... so for me, it improved my knowledge, as I learned from zero and followed all the procedures. (NS, ICU staff)

## **Clinical skills improvement**

The skills gained in delivering high-quality patient care, particularly in handling a variety of clinical skills, were calculating drugs and using different machines, infusion pumps and ventilators.

> Before embarking on this post-basic programme, I had limited knowledge, but it improved after that. For example, the calculation of drugs, usage of machines in the ICU, infusion and many more. (AZ, ICU staff)

## **Enhance decision-making**

The participants embraced the process by learning to make better decisions with their team members. The integration of these components empowered them to choose the optimal option for patient management.

> We know the theory and practice... so we could integrate them better and discuss with the doctors regarding the results... so fast action. (ND, ICU staff)

We could integrate our knowledge into practice, such as ABG result interpretation, and sometimes we could suggest urgent treatment to the doctors... and get involved in decision-making. (MA, ICU staff)

## **Enhance job performance**

The participants' satisfaction with the post-basic programme was reflected in their improved job performance. This is especially evident in their daily job performance, such as advanced ECG interpretation, and enjoyable workplace.

> As I mentioned, we can observe a noticeable improvement in our job performance in the workplace following the completion of the postbasic programme. (WMS, OT staff)

> I informed the doctor about the ECG. At the same time, I analysed the ECG readings and deduced that they indicated atrial fibrillation. I then proceeded to inform the doctor. Previously, I lacked familiarity with it and only had a basic understanding of ECG. (AP, emergency staff)

## Theme 2: Feedback from the programme implementation

This theme refers to positive feedback for the post-basic programme, highlighting its comprehensive curriculum despite its short duration. The participants were satisfied with the learning environment and facilities. They emphasised the success of overcoming their emotional responses compared with before. They expressed their contentment with their gained competencies, including disaster drills and specialised courses. Conversely, negative feedback centred on the repetitive and seemingly overlapping syllabus. The participants felt that the programme leans heavily towards theory rather than practical application and that criticisms of certain teaching styles, particularly research tasks, were considered inappropriate.

#### Positive feedback

#### **Good programme**

Although the curriculum was implemented for only six months, the post-basic programme was comprehensive and concise. The participants were satisfied with the facilities during the programme and the learning environment.

> For me, the overall programme was comprehensive and compact, although done in a short time... We gained a lot of learning outcomes. (MA, ICU staff)

Short time but a lot of input. (F, ICU staff)

#### Provision of the art of thinking

The participants effectively controlled their panic attacks while dealing with challenging cases. They used their knowledge and skills to enhance their confidence in managing their thoughts and actions in difficult situations.

> Different from before. Before this, a bit panicked, but now, better... through step-by-step. (NR, emergency staff)

## Improved responsibility and self-actualisation

The participants were satisfied with the opportunity to enhance their self-actualisation and gain confidence in the management of patient care through their interactions with colleagues.

> Not the same as before. Our responsibility is bigger. (SZ, emergency staff)

Gained more confidence at work. (RH, emergency staff)

# **Supportive local preceptors**

The participants mentioned that local preceptors taught them clinical skills, such as ECG, ABG interpretation and other hands-on skills, in their settings even after working hours.

> We are working with emergency physician (EP)...so we know their working style. While working, they taught us to practice and apply the information. We had 5 EP with different styles... so our involvement and interaction with them familiarised us with their practice as well... so we were more prepared... The local preceptors were quite helpful. For example, when there were not many cases, they taught us about ECG, etc. (NR, emergency staff)

> Sometimes, the local preceptors were quite helpful. For example, when there were not many cases, they would teach us. (ND, ICU staff)

#### Satisfied with the acquired skills

The participants expressed satisfaction with the acquired competencies, including disaster drills, specialised subjects such as poison management and complex procedures such as ABG. Despite the omission of a previous mention in the training, the inclusion of the programme provision contributed to a positive experience for them.

> We got a lecture about poison topics from Dr Aida. One more thing disaster drills with students. (NR, emergency staff)

> We learned about ABG, but as for arterial line insertion, we did not learn, but it was included in the objective structured clinical examination ... we did learn about taking ABG. (SZ, emergency staff)

# **Negative feedback**

Negative feedback was categorised into four subthemes: syllabus issues, weightage imbalance between theory and practice, limited procedures and teaching style.

## **Syllabus** issue

This subtheme describes issues concerning the syllabus and includes syllabus repetition. overlapping and uncovered topics. Some lecturers taught excessively in-depth topics, such as anatomy and physiology.

> For me, in the future, improvements are needed in the syllabus to avoid the repetition of topics. As for the lecturers, there were not many problems because the lecturers answered well. (NS, ICU staff)

> Syllabus overlapping... same topics were taught repeatedly. But sorry, I don't remember them. He taught anatomy and physiology, which, for me, were quite difficult. (MA, ICU staff)

# Weightage between theory and practice

The participants stated that the post-basic programme was more theory than practice and that a broad topic was discussed instead of focusing on system-based management.

It is too much theory. (NR, emergency staff)

Too much theory. (SZ, emergency staff)

as we learned before in the foundation of science, we learned everything from orthopaedics to fracture emergency management. So we don't have that part. (HJ, emergency staff)

#### **Limited procedures**

This subtheme describes the limited procedures, such as the inability to complete the procedure and the restriction policy, a one-day visit to another healthcare setting and the inability of the participants to handle and be involved in the nursing procedure.

> There were certain procedures that we could not perform. (RH, emergency staff)

> There were certain procedures that we could not perform... restrictions because of exposure. (AP, emergency staff)

> We visited University Malaya Medical Centre (UMMC) for only one day. (AP, emergency staff)

## **Teaching style**

This subtheme encompasses a diverse range of teaching styles that the participants encountered. These factors affected their learning experiences.

> All the lecturers were okay, except for one lecturer. He did not provide any notes but asked us to search for journals. We were not familiar with that research, so it was quite difficult for us. It was inappropriate for post-basic students like us to conduct research. Somehow, it was unrelated to the topic. (NR, emergency staff)

# Theme 3: Challenges during the programme

This theme refers to the challenges experienced by the participants during the programme. The participants expressed dissatisfaction with the scarcity of clinical cases and the lack of opportunities for knowledge exchange due to placements resembling their usual work environments. During the training, the participants also highlighted the discrepancies between theoretical learning and practical application and their concerns about the recognition of this inhouse training (certification). They encountered various practical challenges, including brief practical sessions, limited exposure to essential procedures and insufficient opportunities for skill development in their current settings. They faced language barriers with lecturers due to accent and vocabulary differences.

# **Case frequency**

This subtheme describes the participants' feedback on their lack of exposure to clinical cases.

Few improvements are needed, especially exposure to the clinical site. We were posted at International Islamic University Malaysia (IIUM). At that time (2019), our hospital was still new, and there was a lack of cases. The usual cases were simple ones, with minimal trauma cases or polytrauma. Just simple cases. Maybe next time, we can explore Hospital Tengku Ampuan Afzan (HTAA) for advanced cases... As for the application of knowledge, we have difficulty learning. (NR, emergency staff)

At that time, we didn't have many cases, so it was hard to fill our logbook. (AP, emergency staff)

# Limited knowledge or experience exchange

This subtheme explores the restricted exchange of knowledge and expertise due to the hospital placement being similar to the participants' working environment.

> We practice in our own setting, so we have no additional knowledge or experience from outside sources. (T, OT staff)

We are still a new hospital, and all setups are still free. We are unsure about our work quality. (EZ, OT staff)

# Synchronisation between theory and practice

The participants raised concerns regarding the lack of synchronisation between the practical session and the procedure in the objective structured clinical examination (OSCE). Specifically, they mentioned issues with arterial line insertion and tidal volume calculation that did not align with current practices.

> We learned to calculate tidal volume using 6-8 mL, but in Sultan Ahmad Shah Medical Centre (SASMEC), we practised using 6 ml/kg. (MA. ICU staff)

# Validity of certificate

The participants questioned the certificate's validity in another healthcare setting, as they were the pioneer batch. A post-basic certificate from the Ministry of Health is equivalent to an advanced diploma, which should allow them to receive incentives.

> Certificate of post-basic, not advanced diploma, because it was only six months. A year like Ministry of Health for an advanced diploma. (HJ. emergency staff)

> I think that if post-basic is in six months, better focus on the OT course only. (T. OT staff)

#### Practice issue

This subtheme addresses difficulties such as excessively brief practical sessions and lack of procedures (e.g. arterial line insertion, chest tube, exposure in the current setting and frequency of procedures).

> Our exposure to clinical sites was only in SASMEC. I think our SOP cannot perform arterial line...at a general hospital, and they practice arterial line insertion. Last time at Hospital University Science Malaysia (HUSM), the nurse could insert an arterial line in the ED, so we know how to manage the arterial line. But here, we are not exposed to arterial, and there are limited opportunities as well. During OSCE, it was difficult to memorise the manual because there was practically no case here. (NR, emergency staff)

# **Teaching and learning issues**

This subtheme of teaching and learning style describes the adult learning sharing style, which is too in-depth for specific topics.

Yes, it's adult learning. We search by ourselves. (NR, emergency staff)

Microbiology is hard. It was difficult to understand, but finally, when we were able to relate the organism and the medication, it became clearer. (NR, emergency staff)

#### **Communication** issue

There was a language barrier between the participants and lecturers because of the lecturers' use of an English accent and vast vocabulary, which made it difficult for the participants to understand. However, as time went on, they became more accustomed to the situation and were able to adjust accordingly.

It was quite hard to understand the accent earlier, but as time went on, we understood it better. In the beginning, it was quite hard to understand her slang. (AP, emergency staff)

Language barrier. Certain lecturers communicated with a good English accent and used vast vocabulary. Superb! But it was difficult to understand sometimes. (WMZ, OT staff)

## **Theme 4: Future Improvement**

This theme refers to the various aspects that could enhance the programme for the participants, such as a syllabus tailored to their field, clinical attachment in the outbound field and the provision of specific courses, such as trauma care and Advanced Cardiac Life Support (ACLS). The duration of the clinical posting was suggested to allow adequate clinical exposure. Moreover, the teaching and learning methodology they preferred were the conventional lecture format and self-directed learning. The participants valued mentorship and guidance from senior staff and experienced instructors with clinical expertise and suggested extending the study duration to one year.

#### Syllabus improvement

This subtheme centres on the syllabus pertaining to the field of practice, the necessity to update the existing syllabus and the importance of aligning objectives with the syllabus. The participants believed that the syllabus was too broad and required specialisation in relevant domains, such as offering courses and skills pertaining to their specific field.

Be more specific. It should be related to the emergency course. (NR, emergency staff)

Our class was mixed with participants from other departments, such as ED, ICU... so we learned various subjects and did not focus only on our area. (BD, OT staff)

## Clinical attachment setting

This subtheme describes the suggestion to provide outbound clinical training to enhance the participants' knowledge and skills. The participants believed that different learning environments could enhance their knowledge and allow them to exchange skills with colleagues.

> As I said earlier, in my view, in-house training might not be suitable... but a new environment might be more adventurous for both of us (students and lecturers). So that we can learn new things in a new setting. (WMZ, OT staff)

> The same practical site, so there is not much difference. So I suggest that the participants should be posted to another centre. (NL, ICU staff)

# Specific course

This subtheme describes the provision of courses suggested by the participants for their specific areas. System-based trauma courses, such as basic life support, adult and paediatric courses, trauma care and related courses, could enhance their skills and application of knowledge. The participants expressed their concerns about the issue.

> I expected courses like BLS, ACLS and others... but it was more focused on lectures because our courses were only for six months. We expected more certificates but only got ACLS. (RH, emergency staff)

## **Duration of clinical posting**

The participants struggled to find cases due to a shortage of time during clinical placement in a recently established setting. As a result, the care involved in challenging situations was uncommon in the offered scenario.

> Clinical exposure during clinical posting. We didn't have many cases here. (ND, ICU staff)

> Same as my colleagues: posting resources and extending the study period of the programme. (MA, ICU staff)

# Teaching and learning style

The participants exhibited a preference for a conventional lecture format and an instructive learning approach, as opposed to the existing lecture style.

I suggest normal lectures and teaching. (RH, emergency staff)

We like normal lectures with good content and objectives. Selfsearching is good, but we still study for exams, so we still refer to notes. (NR, emergency staff)

## Catalysts for improvement

Supportive lecturers, a good support system from seniors and family, experienced local preceptors, additional instructional aspects and the involvement of emergency physicians (EPs) are the catalysts for the participants' improvement. Experienced instructors with clinical expertise can also provide an edge for future advancement.

The lecturers were excellent. (F, ICU staff)

Helpful lecturers, like mothers to us. So far, so good. (NL, ICU staff)

The second batch should have classes with EPs. We had 4-5 EPs, so they provided additional knowledge and experience. (HJ, emergency staff)

*Alhamdulillah.* most lecturers were there for us in terms of assessment and other consultations. We also had very helpful seniors. (ND, ICU staff)

#### Extend the duration

The duration of the post-basic programme should be extended to one year to cover more topics, obtain more skills and exchange clinical experience.

> I suggest extending the programme's duration to one year. (F. ICU staff)

> The same for me. Six months were too short because we needed to cover many subjects, such as ventilator settings. (AZ, ICU staff)

Extend the time. (M, OT staff)

## **DISCUSSION**

The findings indicated that the CCNs who attended the programme were satisfied. The programme allowed them to gain knowledge and self-confidence in dealing with complex cases. The critical care nursing competencies indicated an acceptable level of clinical skills and knowledge while also allowing competence to be measured (2). The CCNs' education could improve the clinical environment with necessary skills through common goals and skills that meet the diversity of modern healthcare needs (3).

The participants experienced challenges in OSCE, such as a lack of synchronisation between theories and the current practice and a few procedures not being updated in the syllabus. Although it was time consuming and only served as a simulation of practice at best, the OSCE approach has grown in popularity in nursing education. According to certain studies, OSCEs should record meetings for the sake of transparency (18).

The process of acquiring knowledge was difficult, but the goal of critical care nursing education is to educate professional, competent and caring CCNs who can integrate advanced theoretical knowledge with practical and interpersonal skills to care for critical care patients (3, 10). However, the process of evaluation was quite challenging, as the nurses were at a more advanced level with various competencies that needed to be evaluated (11,12,13). Moreover, the preceptors could find it difficult to assess students' competence while also caring for critically ill patients (14,15, 16).

The execution of the new curriculum posed significant difficulties due to clinical skills and clinical placement concerns. Identifying whether individual skill competencies relate to practice is critical for quality care and specialty development (3, 17). This could be carried out with an assessment tool that must be clear. Specific criteria must be established to avoid misinterpretation (19), and the usage must be familiar to the students, lecturers and preceptors (20). Emerging technology with the development of digital tools could help synchronise information and widen the learning horizon, and it should become an opportunity to reflect on and exchange feedback (19, 21).

Furthermore, the CNNs acknowledged that they received substantial support from their lecturers, friends and seniors, which greatly enhanced their morale and bolstered their confidence in making decisions, engaging in critical thinking and completing their post-basic journey. Heightened confidence levels indirectly affect one's self-esteem as a professional worker (23). Therefore, exhibiting assertive behaviour can assist individuals in conquering obstacles. In addition, it is undeniable that self-development is a time-consuming process that may occasionally veer towards a professional path. The cognitive processes and decision-making abilities that form the foundation of clinical skills are essentially the elements of professional competence. Proficiently handling circumstances, formulating judgments, and collaborating within a team are the three principal domains of professional competence. Decisions regarding critical care that rely on intuition are based on a combination of experience and comprehension. When evaluating capabilities, it is essential to consider the perceptions of ICU patients and their families, as well as the level of rapport established with them (24).

The CCNs expressed the need for further deliberation and reflection regarding the implementation of theoretical knowledge in practical settings. However, they conveyed their dissatisfaction with minimal supervision during their posting due to a scarcity of preceptors. Preceptors play a vital role in establishing a supportive supervisory relationship, as clinical supervision significantly affects their professional practice and their potential to hold a supervisory role post-graduation (22,25). Several factors have contributed to this issue, including the challenge of adapting to different critical care settings, which heightens stress levels, the need to adjust to rotation environments, concerns about causing harm to others, unfamiliarity with tools and procedures, establishing new relationships and attitudes, feelings of insecurity and the intricate nature of patient care requirements (1).

To overcome this challenge, students' motivation is contingent upon a conducive environment and adequate supervision throughout their educational journey. A supportive environment can be categorised as either structural or moral. In the structural aspect, it entails providing sufficient time for continuing professional development (CPD), ensuring availability and setting clear expectations for desired outcomes. Conversely, the moral aspect involves the presence of supportive peers, leaders who prioritise CPD and management who possess a comprehensive understanding of its importance (26). Establishing cooperative and supportive relationships during the post-basic journey can improve participants' sense of belonging and facilitate the process of adaptation.

## LIMITATIONS AND RECOMMENDATIONS

The subjective nature of phenomenological research may lead to bias in data interpretation, even though attempts are made to minimise bias through reflexivity and peer debriefing. The participants' experiences could have been influenced by contextual factors, such as institutional regulations and clinical surroundings, which could restrict the generalisability of the findings to different settings. The recommendations for future research encompass broadening the sample to include a wider range of participants, carrying out studies over an extended period, using mixed-methods approaches, comparing and contrasting various nursing specialties and involving key stakeholders to improve the significance and practicality of the research findings for nursing education and practice.

## CONCLUSION

This study sheds light on the experiences of post-basic critical care nursing students, offering valuable insights into ongoing education and enhancing patient care within their training frameworks. The findings can inform adjustments to critical care courses and guide future research endeavours. These students progressively develop their knowledge, skills and competency, poised to become leaders in critical care. Integrating a continuous clinical learning environment into their daily responsibilities can further support their growth. Overall, this study contributes to understanding nursing education's dynamics and emphasises the imperative of continuous learning for improved patient care in clinical settings.

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## **REFERENCES**

- 1. Hattingh, AH, Downing, C. Clinical learning environment: Lived experiences of post-basic critical care nursing students. Int J Afr Nurs Sci. 2020; 13: 100263. ISSN 2214-1391. https://doi.org/10.1016/j.ijans.2020.100263.
- 2. Zhang X, Meng K, Chen S. Competency framework for specialist critical care nurses: a modified Delphi study. Nurs. Crit. Care, 2019; 25 (1):45–52. https://doi.org/10.1111/nicc.12467.
- 3. Gullick J, Lin F, Massey D, Wilson L, Greenwood M, Skylas K, Gill FJ. Structures, processes and outcomes of specialist critical care nurse education: an integrative review. Aust. Crit. Care. 2019; 32 (4), 331–345. https://doi.org/10.1016/j. aucc.2018.09.007.
- 4. Helen H, Charlené D. Clinical learning environment: Lived experiences of post-basic critical care nursing students. Int J Afr Nurs Sci. 2020;13:100263. ISSN 2214-1391. https://doi.org/10.1016/j.ijans.2020.100263.
- 5. Howell KE. An introduction to the philosophy of methodology. London: Sage Publications; 2013. [eBrary]. doi: 10.4135/9781473957633

- 6. De Castro A (2003). Introduction to Giorgi's existential phenomenological research method. Psicologia desde el Caribe. 2003;11:45–56 http://www.redalyc.org/articulo.oa?id=21301104.
- 7. Holloway I & Galvin K. *Qualitative research in nursing and healthcare* (fourth ed.). United Kingdom: Wiley Blackwell. 2017.
- 8. Giorgi A. The descriptive phenomenological psychological method. *Journal of* Phenomenological Psychology. 2012; 43, 3–12.
- 9. Nowell LS, Norris JM, White DE & Moules NJ. Thematic analysis: Striving to meet the trustworthiness criteria. Int, J. Qual Methods. 2017;16(1–13). https://doi.org/10.1177/1609406917733847.
- 10. DeGrande H, Liu F, Greene P, Stankus JA. Developing professional competence among critical care nurses: an integrative review of literature. Intensive Crit. Care Nurs. 2018; 49. https://doi.org/10.1016/j.iccn.2018.07.008.
- 11. Henriksen KF, Hansen BS, Wøien H, Tønnessen S. The core qualities and competencies of the intensive and critical care nurse, a meta-ethnography. J Adv Nurs. 2021 Dec;77(12):4693-4710. doi: 10.1111/jan.15044. Epub 2021 Sep 17. PMID: 34532876.
- 12. Immonen K, Oikarainen A, Tomietto M, Kääriäinen M, Tuomikoski AM, Kaučič BM, Filej B, Riklikiene O, Flores Vizcaya-Moreno M, Perez-Cañaveras RM, De Raeve P, Mikkonen K. Assessment of nursing students' competence in clinical practice: A systematic review of reviews. Int J Nurs Stud. 2019 Dec;100:103414. doi: 10.1016/j.ijnurstu.2019.103414. Epub 2019 Aug 31. PMID: 31655385.
- 13. Nyhagen R, & Strøm A. Postgraduate students' perceptions of high-quality precepting in critical care nursing. Nurse Education Today. 2016;21:16–22. https://doi.org/10.1016/j.nepr.2016.09.002.
- 14. Helminen K, Tossavainen K, Turunen H. Assessing clinical practice of student nurses: views of teachers, mentors and students. Nurse Educ. Today. 2014; 34 (8): 1161–1166. https://doi.org/10.1016/j.nedt.2014.04.007.
- 15. Jølstad AL, Røsnæs ER, Severinsson E, Lyberg AA paradigm shift in nurse specialist clinical supervision—implementation of a competence programme. SAGE Open Nurs. 2019; 5. https://doi.org/10.1177/2377960819844366.
- 16. Sundler AJ, Blomberg K, Bisholt B, Eklund A, Windahl J, Larsson M. Experiences of supervision during clinical education among specialised nursing students in Sweden: A cross-sectional study. Nurse Educ Today. 2019 Aug;79:20-24. doi: 10.1016/j.nedt.2019.05.009. Epub 2019 May 9. PMID: 31085423.
- 17. Lakanmaa RL, Suominen T, Perttilä J, Ritmala-Castrén M, Vahlberg T, Leino-Kilpi H. Basic competence in intensive and critical care nursing: development and psychometric testing of a competence scale. J Clin Nurs. 2014 Mar;23(5-6):799-810. doi: 10.1111/jocn.12057. Epub 2013 Jan 18. PMID: 23331409.
- 18. Øvrebø, Line J et al. Assessment methods and tools to evaluate postgraduate critical care nursing students' competence in clinical placement. An integrative review. *Nurse education in practice* . 2022; 22: 103258. doi:10.1016/j.nepr.2021.103258
- 19. Ross P, Cross R, Sonneborn O, MacDonald B, Dean C, Miller C. Comparison of postgraduate student and educator appraisals: A retrospective analysis. Nurse Educ Pract. 2017 Mar;23:82-91. doi: 10.1016/j.nepr.2017.02.009. Epub 2017 Feb 24. PMID: 28278443.
- 20. Mårtensson G, Lind V, Edin K, Hedberg P, Löfmark A. Development and validation of a clinical assessment tool for postgraduate nursing education: A consensus-group study. Nurse Educ Pract. 2020 Mar;44:102741. doi: 10.1016/j.nepr.2020.102741. Epub 2020 Feb 22. Erratum in: Nurse Educ Pract. 2020 Jul;46:102817. PMID: 32145493.
- 21. Ghafari S, Yazdannik A, Mohamadirizi S. Education promotion based on "mobile technology" in the critical care nursing department: four-phase intervention. J. Educ. Health Promot. 2020; 9:325. https://doi.org/10.4103/jehp.jehp\_34\_

- 22. Pugh D, Hatala R. Being a good supervisor: it's all about the relationship. Med Educ. 2016 Apr;50(4):395-7. doi: 10.1111/medu.12952. PMID: 26995478.
- 23. Walker A, Costa BM, Foster AM & De Bruin RL. Transition and integration experiences of Australian graduate nurses: A qualitative systematic review. Collegian. 2017; 24: 505–512. https://doi.org/10.1016/j.colegn.2016.10.004.
- 24. DeGrande, Heather; Liu, Fuqin; Greene, Pamela; Stankus, Jo-Ann (2018). Developing professional competence among critical care nurses: An integrative review of literature. Intensive and Critical Care Nursing, S0964339717303427-. doi:10.1016/j.iccn.2018.07.008
- 25. Ndawo GM. Nurse educators' experiences regarding management practices at a nursing education institution. Health SA. 2022 Nov 21;27:1935. doi: 10.4102/hsag.v27i0.1935. PMID: 36483494; PMCID: PMC9724120.
- 26. Mlambo M, Silén C, McGrath C. Lifelong learning and nurses' continuing professional development, a metasynthesis of the literature. BMC Nurs. 2021 Apr 14;20(1):62. doi: 10.1186/s12912-021-00579-2. PMID: 33853599; PMCID: PMC8045269.