



Original research article

Postgraduate nursing students' reflection on safe clinical practice: a descriptive qualitative study

Dominika Kohanová ^{1*} , Veronika Šulajová ², Dana Zrubcová ¹ , Ľuboslava Pavelová ¹ ,
Andrea Sollárová ¹

¹ Constantine the Philosopher University in Nitra, Faculty of Social Sciences and Health Care, Department of Nursing, Nitra, Slovak Republic

² St. Elizabeth University of Health and Social Sciences, St. Ladislaus Faculty of Health Care and Social Work, Department of Nursing, Nové Zámky, Slovak Republic

Abstract

Introduction: Patient safety is a critical component of nursing practice, yet the integration of safety competencies into postgraduate nursing education remains inconsistent. As future nurse leaders, postgraduate students must be equipped not only with clinical skills but also with the ability to identify, reflect on, and address safety risks in complex care environments.

Objective: To explore how postgraduate nursing students perceive, experience, and interpret the provision of safe nursing care during clinical placements.

Methods: A descriptive qualitative design was carried out between June 2024 and August 2024. Semi-structured interviews were conducted with nine postgraduate nursing students who had completed clinical placements at the hospital setting. Data were analyzed using reflective thematic analysis.

Results: Four key themes emerged: (1) From barriers to professionalism in nursing practice; (2) From theory to safe practice; (3) Nursing under pressure: resources, communication, and individualized care; and (4) Ensuring patient safety in nursing practice – challenges and the role of students.

Conclusion: Postgraduate nursing students face multifaceted challenges in delivering safe care during clinical placements. Enhancing clinical supervision, aligning theoretical education with real-world practice, and fostering a safety culture through open communication and leadership are essential for improving patient safety education and outcomes.

Keywords: Clinical placement; Nursing education; Patient safety; Postgraduate nursing students; Qualitative study

Introduction

As health systems grow more complex, the responsibility for maintaining safety standards increasingly spans all levels of care – with nurses playing a critical frontline role (Machitidze et al., 2023). In this context, the education and clinical preparation of nursing students, particularly at the postgraduate level, have gained renewed attention for their potential to shape future professional behavior and foster a robust culture of safety (Gropelli and Shanty, 2018).

Clinical placements offer nursing students more than just technical skill development. They serve as the socialization ground where professional values, ethical standards, and safety behaviors are absorbed and tested (Sadler and Snively, 2023). Reflection on these experiences provides valuable insights into how well academic programs and clinical environments are preparing students to deliver safe, effective care (Gropelli and Shanty, 2018; Sadler and Snively, 2023).

Numerous studies have shown that adverse events during clinical placements, such as medication errors, patient falls, and documentation mistakes, remain frequent (e.g., Song and Kim, 2023). Students are often directly involved or serve as witnesses to these incidents, which can impact their learning, confidence, and willingness to report errors (Gradišnik et al., 2024). Barriers to safe practice include high stress levels, poor communication within healthcare teams, inadequate supervision, and the presence of negative professional role models (Kurt et al., 2024). In contrast, effective mentorship and clinical supervision are recognized as crucial factors that enhance student competence in providing safe care (Cant et al., 2024; Kohanová et al., 2023). Supportive supervisory relationships can foster assertive communication, critical thinking, and the early identification of safety risks. Conversely, insufficient support can increase students' anxiety and hinder their ability to deliver safe, high-quality care (Cant et al., 2024). Structured reflection on clinical experiences allows students to critically analyze incidents, recognize systemic causes of errors, and

*** Corresponding author:** Dominika Kohanová, Constantine the Philosopher University in Nitra, Faculty of Social Sciences and Health Care, Department of Nursing, Nitra, Slovak Republic; e-mail: dkohanova@ukf.sk
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propose strategies for prevention, thus preparing them for real-world practice where safety is a shared, multidisciplinary responsibility (Yilmaz and Erdem, 2023).

In clinical settings, students often observe varying degrees of adherence to patient safety protocols among practicing nurses. Positive role models who demonstrate high standards of safety, effective communication, and teamwork are essential for instilling professional values and practices in students (Kurt et al., 2024). Negative experiences, such as witnessing rule violations or unsafe behaviors, challenge students' developing professional identities and highlight the need for strong educational support to reinforce safety culture principles (Song and Kim, 2023).

Despite global efforts, comprehensively integrating patient safety into nursing education remains challenging. The WHO (2023) continues to advocate for system-wide approaches that prioritize safety at every level, emphasizing leadership, evidence-based practice, continuous education, and active patient involvement.

In light of these considerations, the current study focuses on postgraduate nursing students' reflections on the provision of safe nursing care during their clinical placements. Exploring their experiences, perceptions, and insights provides critical information for identifying gaps in clinical education, improving supervisory practices, and strengthening the integration of patient safety competencies into postgraduate nursing curricula. Unlike previous studies that primarily examine undergraduate perspectives or rely on quantitative methods, this study provides an in-depth qualitative exploration of postgraduate students' reflections, emphasizing their transition into advanced clinical roles and their capacity to contribute to systemic safety improvements. This focus represents a novel contribution to the current body of knowledge on patient safety education.

Materials and methods

Study design

This study employed a descriptive qualitative design and was carried out in accordance with the COREQ (Consolidated Criteria for Reporting Qualitative Research) checklist (refer to [Suppl. materials](#)). The research question was formulated as follows: How do postgraduate nursing students describe and interpret their experiences with safe provision of nursing care during their clinical placements?

Sample

Participants were selected using a snowball sampling method, beginning with an initial contact who was a postgraduate nursing student known to the research team through prior academic collaboration. This student was provided with information about the study and invited to participate. Upon consenting, they were asked to refer peers who met the eligibility criteria. Each subsequent participant was then encouraged to suggest other potential participants. The target group consisted of postgraduate nursing students. Only those who voluntarily agreed to participate and provided informed consent were included. Eligibility criteria required that participants had completed clinical placements in hospital settings as part of their academic training. The final number of nine participants was determined by the richness and complexity of the information in relation to the study's aims, combined with the researchers' evaluative judgment. Instead of achieving a strict

saturation point, data collection ceased when no new insights, codes, or themes emerged (Braun and Clarke, 2022a).

Data collection

Data were collected between June 2024 and August 2024 through in-depth, semi-structured interviews, using an interview guide developed based on a review of literature (Kohanová et al., 2023). The interview guide included five questions on the experience of postgraduate nursing students with safe provision of nursing care during their clinical placements (Table 1). The main questions were supplemented by additional sub-questions. The guide was piloted with a prospective participant (excluded from the main study) to ensure clarity and relevance. Participants received detailed information about the study's aims prior to participation. Interviews were conducted online, using the platform MS Teams®. They were audio-recorded with consent and lasted an average of 31 minutes. Basic demographic information was collected.

Table 1. Interview guide

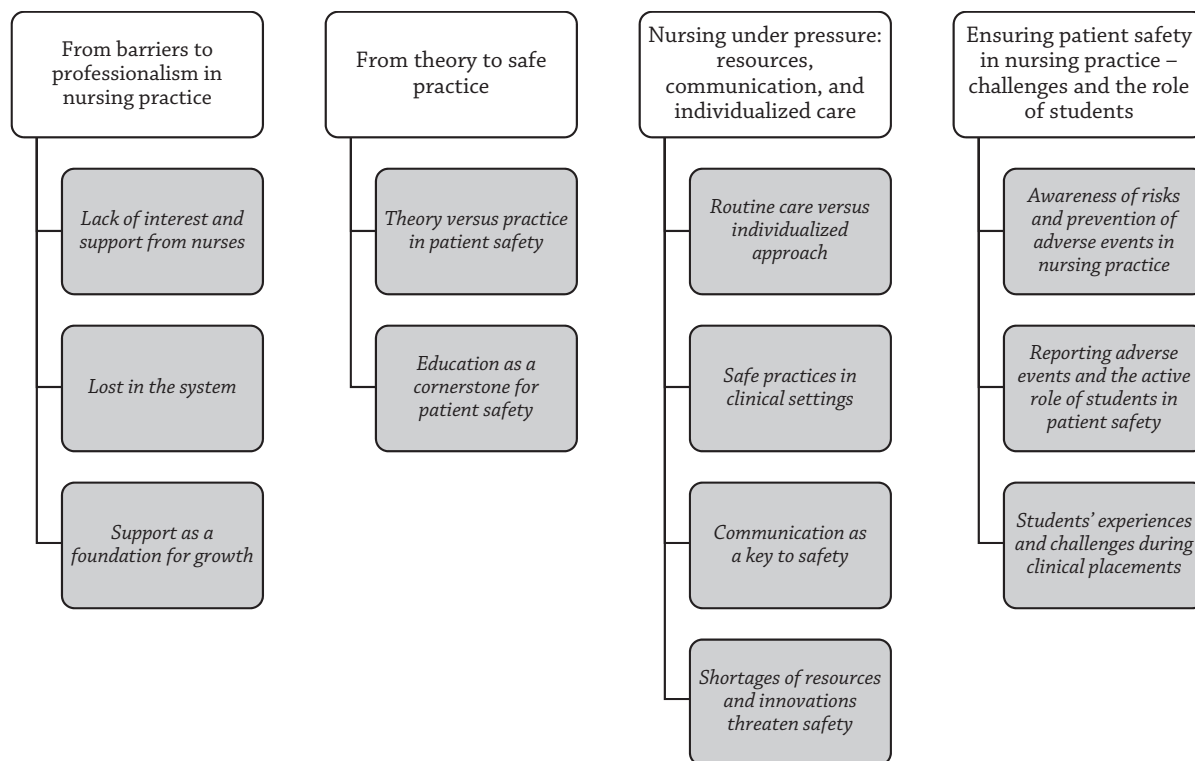
Structure	Questions
Introductory question (rapport building)	How would you evaluate your most recent clinical placement?
Questions	<p>What did a typical day during your placement look like?</p> <p>What are your experiences with errors or mistakes, specifically in terms of adverse events, during your clinical practice?</p> <p>Can you recall any adverse event that occurred during your clinical placement?</p> <p>In what ways did the nurses work to prevent or minimize the occurrence of adverse events in the workplace?</p> <p>Based on your experience, what additions or improvements would you suggest for the education on patient safety during your studies?</p>
Closing question	Is there anything else you would like to add regarding what we have discussed?

Data analysis

The qualitative data were transcribed verbatim and analyzed using reflective thematic analysis following Braun and Clarke's (2022a) methodology, with the support of Atlas.ti 9® software. The analysis proceeded through six phases: familiarization with the data, coding, development of initial themes, reviewing and refining themes, defining and naming themes, and producing the final report. To preserve the integrity of the reflective thematic analysis and remain consistent with the principles outlined by Braun and Clarke (2022b), two researchers independently conducted line-by-line coding of the transcribed interviews. Coding was both descriptive (capturing explicit content) and analytic (identifying underlying meanings, assumptions, and contextual factors influencing students' reflections). The use of two coders enhanced reflexivity and analytical rigor, as each brought distinct perspectives and interpretations, which were later compared, discussed, and reconciled to develop a shared coding framework. The analysis was conducted from a critical realist epistemological stance, which assumes that participants' accounts reflect real experiences shaped by both observable structures (e.g., institutional practices, clinical hierarchies) and subjective meaning-making. This approach acknowledges that while language constructs experience, it also points to deeper realities within healthcare

systems that influence how safety is enacted, taught, or undermined in practice (Braun and Clarke, 2022a, b). The themes were therefore not only representative of individual perceptions but also aimed to capture the interplay between personal narratives and broader systemic conditions affecting patient safety in nursing education (Scheme 1).

The final analytic framework comprised 200 extracts organized into 27 codes, reflecting postgraduate nursing students' experiences with the safe delivery of nursing care. To ensure methodological rigor and credibility, researcher triangulation and peer debriefing were employed. Additionally, a qualitative research expert (XX) provided peer review throughout phases 3 to 6 of the reflective thematic analysis.



Scheme 1. Postgraduate nursing students' reflection on safe clinical practice

Results

The study included nine postgraduate nursing students with an average age of 23.2 years (ranging between 22 and 24 years). The sample included female students from various clinical departments, including internal medicine, surgery, and intensive care units. The analysis revealed four central themes reflecting postgraduate nursing students' experiences with patient safety during clinical placements (Scheme 1).

Theme 1: From barriers to professionalism in nursing practice

The theme is examined through the following subthemes: *Lack of interest and support from nurses*; *Lost in the system*; *Support as a foundation for growth*.

Subtheme 1: Lack of interest and support from nurses

Many nurses appeared to be disinterested in patient safety, often failing to respond appropriately to risks such as patient falls: "During night shifts, the nurses usually sleep, and when a patient falls, they don't even know, so it doesn't get reported" (S3). Students also observed that nurses often ignored critical situations and left them to be handled by the students: "By the time the nurses came we had already helped the patient with my

classmate and told them what happened, but they didn't care at all. They didn't report it further" (S9). Additionally, nurses' negative attitudes hindered student training, with students feeling ignored or obstructed in their efforts to gain practical experience: "On the surgical ward, they stood in the hallway for twelve hours, were given only one IV to administer" (S9). Students also noticed that some nurses showed a lack of empathy toward patients, especially in sensitive care areas like the neonatal unit: "A mother came to ask something, and the nurse nervously grabbed the baby by the swaddle and took it away without explaining anything" (S6).

Subtheme 2: Lost in the system

Insufficient supervision and negative role models created challenges for students during clinical placements. Many are assigned tasks beyond their competence without proper oversight: "Once the mentors trust students, they let us perform more procedures alone and don't check on us as often... mistakes can still happen" (S7). This absence of immediate feedback fostered uncertainty and stress, with some students reluctant to admit their lack of experience, performing procedures without proper preparation: "The biggest problem is when students perform something they've never done before but don't admit it" (S8). In some cases, students were discouraged from following correct safety protocols, undermining their training and patient safe-

ty: "On some wards, they said – why take a tray, you're just slowing down, grab the syringe and go" (S9).

Subtheme 3: Support as a foundation for growth

Students highlighted positive experiences with supportive nursing staff who provided guidance, constructive feedback, and a safe learning environment: "My last placement was excellent. The mentor was patient, explained everything, and truly prepared me for my future as a nurse" (S4). Support from experienced nurses enabled students to perform clinical tasks more confidently and contributed to their professional development: "I appreciated the nurses who worked collaboratively and treated students with respect" (S7). Supervised autonomy was seen as a major benefit, allowing students to build skills in a controlled setting: "I was allowed to review and document patient records, which I hadn't done before. That was a big plus" (S4). Students highlighted the value of non-judgmental mentoring, where preceptors provided consistent support without criticism or ridicule: "... the mentor was amazing – she guided us through everything and treated us with kindness" (S9). Students who felt welcomed reported a more meaningful and engaging clinical experience.

Theme 2: From theory to safe practice

The theme is further detailed through two subthemes: *Theory versus practice in patient safety*; *Education as a cornerstone for patient safety*.

Subtheme 1: Theory versus practice in patient safety

Students reported gaps in patient safety education, noting that key protocols were often learned only during clinical placements: "Often, you start working and only then receive proper safety training or an orientation, realizing there was information you hadn't been taught before" (S1). Some departments lacked department-specific safety training, particularly surgical units, where postoperative fall prevention was insufficiently addressed: "We absolutely did not focus specifically on this topic – there was no lecture or dedicated time" (S3). Students suggested that safety education should be tailored to the specific needs of each department. Limited clinical practice hours hindered students' ability to apply knowledge effectively: "There should be more clinical practice hours at universities, especially for students without prior healthcare experience" (S9). Proposed improvements included simulation-based training: "There should be a subject focused on patient safety where instructors run simulations of adverse events" (S1). Students also advocated for modern safety practices, such as alternatives to using bedrails: "Bedrails must be officially documented as a restrictive measure. It would be good to learn other methods to prevent falls" (S7). While patient safety was covered in various subjects, students felt the content lacked depth. Some universities offered dedicated patient safety courses: "We had a course on patient safety, and it focused more on regulations and healthcare-associated infections" (S5).

Subtheme 2: Education as a cornerstone of patient safety

Students highlighted the role of education in patient safety and its impact on preventing adverse events. They observed inconsistencies in nurse training, often relying on individual initiative. Moreover, they suggested regular seminars to enhance safety awareness: "Nurses should attend various professional meetings to stay updated on correct safety procedures" (S2). Another important aspect is nurses' lack of awareness regarding their right to continuing education. Students emphasized

that the education level of healthcare personnel directly impacts patient safety. Well-informed nurses are more capable of effectively minimizing risks associated with adverse events: "Educating staff about safety protocols is essential for providing proper care" (S1).

Theme 3: Nursing under pressure: resources, communication, and individualized care

The theme is further detailed through four subthemes: *Routine care versus individualized approach*; *Safe practices in clinical settings*; *Communication as a key to safety*; *Shortages of resources and innovations threaten safety*.

Subtheme 1: Routine care versus individualized approach

Students observed that routine-based nursing often led to inadequate care: "A bedridden patient develops ulcers. One nurse wouldn't do anything – no side rails, no secured environment" (S1). Routine practices also included inappropriate restraints, often leading to psychological distress: "Since it was a neurological ICU, they put a diaper on a patient, then restrained her, even though she was independent" (S8). Some students felt patients were treated impersonally: "It felt demeaning – every patient was treated the same, with no real care" (S1). A routine approach also led to incorrect responses in crisis situations: "A patient fell, but our classmate stepped away instead of catching him, unsure how to react" (S6). Students stressed the importance of individualized care and sensitive handling of restrictive orders: "With an order to place a patient in a netted bed, I managed it without confining them" (S3).

Subtheme 2: Safe practices in clinical settings

Students emphasized the importance of adhering to safety protocols: "Respecting safety means raising crib sides or ensuring supervision" (S1). Failure to follow these measures resulted in serious risks, including unreported patient falls: "The patient had no side rails, and no safety protocol was filed" (S1). Breaches of aseptic technique were also noted: "Nurses didn't wear gloves during blood draws or reused needles" (S8). Improper medication handling was another concern: "Antibiotics should be diluted before administration, but often, no one pays attention" (S1). Managing aggressive patients required adherence to proper safety protocols: "It's critical to immediately call a doctor, fill out a safety protocol, and legally process restraints" (S9). Students advocated for stricter supervision, revised hospital policies, and greater accountability: "Supervisors should reevaluate department policies and implement stricter control" (S3). They also recommended informing patients about safety mechanisms: "Nurses should explain how to use the call button for assistance" (S8).

Subtheme 3: Communication as a key to safety

Effective communication is essential in nursing practice, as miscommunication can lead to serious errors. Fear of asking for clarification or receiving unclear instructions increased the risk of mistakes: "Students sometimes don't know what to do, but they still proceed... just so they aren't seen as incompetent" (S7). This was illustrated by an incident where students were sent to perform a blood draw without receiving basic information about the patient, leading to confusion and a higher chance of error: "We were told: 'Go draw blood from Mr. XY', but we didn't even know who he was or which room he was in..." (S9). On the other hand, students viewed effective communication as a key element in preventing adverse events: "Clear communication between students and staff is crucial to prevent adverse events" (S3).

Subtheme 4: Shortages of resources and innovations threaten safety

The lack of nursing staff meant there was insufficient time to properly supervise and guide students, leading to situations where students performed procedures independently without adequate oversight: *"Because the department was overwhelmed and there were too few nurses, they just handed us tasks to perform on our own"* (S6). Another major concern was the inadequate material and technical equipment of hospital departments: *"Hospital wards were often not equipped as they should be. There were cases where patients slipped in the shower because there weren't proper aids"* (S2). Students emphasized the importance of modernizing healthcare workplaces and implementing innovations that could improve both the quality of care and working conditions: *"It would be great to keep up with new tools and trends, and if possible, bring them into our department"* (S6).

Theme 4: Ensuring patient safety in nursing practice – challenges and the role of students

The theme is further detailed through three subthemes: *Awareness of risks and prevention of adverse events in nursing practice; Reporting adverse events and the active role of students in patient safety; Students' experiences and challenges during clinical placements.*

Subtheme 1: Awareness of risks and prevention of adverse events in nursing practice

In critical situations, such as caring for disoriented or suicidal patients, students recognized the importance of quick reactions and proper preventive measures: *"It was quite a negative experience – we were pretty scared, but we immediately called the nurses, explained what was happening to the patient, and helped calm him down"* (S1). Students highlighted the need for non-slip mats, stable hospital beds, and side rails for at-risk patients: *"When patients are immobile, you must pay much more attention to their safety – they can easily get injured. The same goes for children; you must always close the side rails on their beds"* (S6). Additionally, students stressed the need to inform patients about risks and appropriate behavior within healthcare facilities: *"Students should use the knowledge they've acquired to explain to patients what behaviors to avoid"* (S4). They also acknowledged their active role in preventing adverse events: *"As students, we should respect safety standards and report any concerns to the nurses"* (S3).

Subtheme 2: Reporting adverse events and the active role of students in patient safety

Students shared experiences where nurses actively reported their mistakes and took responsibility: *"In one case, the nurse reported the error herself, admitted that the medication had been incorrectly dosed, and even apologized directly to the patient"* (S4). They also observed the importance of reporting incidents that pose risks to healthcare workers: *"The department had a standard incident logbook... incidents were reported to hygiene authorities, and follow-up procedures required the affected nurse to undergo biannual testing"* (S6). Students pointed out that adverse events are not limited to clinical errors but also include situations involving patient aggression: *"There was a fight... the patient had schizophrenia, hallucinations, assaulted other patients, staff, even beat the doctor and police officers – it had to be reported because of the injuries he caused"* (S3). A critical factor in preventing adverse events is the active role of students. They emphasized the importance of speaking up when noticing improper practices or potential risks: *"Students shouldn't be*

afraid to speak up when they see something wrong" (S1). Students also highlighted the importance of faculty support when reporting unsafe practices observed during clinical placements: *"We could report everything to our instructor or another nurse or even notify the school. At the end of the year, we could write to the vice-dean about any observed violations"* (S2).

Subtheme 3: Students' experiences and challenges during clinical placements

Students reflected on the daily experiences during clinical placements, including their assigned tasks, levels of independence, and the support provided by healthcare staff: *"In the morning, we performed hygiene care, drew blood, educated patients about upcoming examinations, accompanied them to tests, and later distributed meals and administered medications"* (S4). An important aspect of the practice was participation in morning handovers: *"We arrived at practice early, around 6:00 a.m., to hear the handovers, allowing us to assess patient status with the nurse or instructor and plan our care accordingly"* (S1). While some students viewed their clinical practice as very beneficial, others encountered problems such as lack of supervision, chaotic organization, and inconsistent instructions. Students who worked under the guidance of experienced nurses or instructors gained more skills and independence: *"I always learned something new at every placement, and at my last one, I became much more independent"* (S2). Conversely, lack of supervision sometimes led to students being left to perform procedures without sufficient guidance: *"A negative experience was when our mentor had to leave in the middle of the shift"* (S6).

Discussion

This study explored postgraduate nursing students' reflections on the provision of safe nursing care during their clinical placements, offering critical insights into the reasons that facilitate or hinder the delivery of patient-centered, safe care in real-world settings. The findings reveal four key areas impacting the students' development and experiences of patient safety: clinical mentoring and support, integration of theory and practice, communication and resource availability, and safety culture related to adverse event reporting. The interaction between the four themes underscores a systemic pattern in which the success of patient safety education depends not only on curriculum content but also on the broader organizational environment. Inadequate mentorship, poor communication, and resource constraints do not operate in isolation but converge to shape a fragmented safety culture. For example, students' struggles to apply theoretical knowledge are compounded by staff burnout and insufficient supervision – factors that, in turn, reflect organizational shortcomings rather than individual failings. Recognizing the interplay between these themes is essential to moving from descriptive accounts to actionable change.

Participants consistently emphasized that a lack of engagement from clinical nurses, insufficient supervision, and exposure to negative professional role models negatively affected their educational experience and confidence in delivering safe care. These findings align with those of Oshodi and Sookhoo (2024), who reported that passive or disengaged behavior from clinical mentors undermines students' learning and safety practices. Similarly, Makhaya et al. (2023) stressed that effective clinical mentorship is pivotal in bridging the gap between theoretical knowledge and practice readiness. Without adequate support, students risk graduating with feelings

of professional incompetence, which can compromise patient outcomes. Positive experiences, where students were included as valued members of healthcare teams and supported by engaged mentors, were described as critical to professional growth. This is consistent with research by Mamaghani et al. (2019), who demonstrated that mentoring relationships characterized by understanding and encouragement foster students' ability to develop clinical competence and confidence. However, the study also highlighted that negative interactions, such as a lack of respect, ineffective communication, and exclusion from clinical decision-making processes, diminished students' motivation to engage, learn, and contribute to patient care (Moghaddam et al., 2020). Such experiences may have long-term implications for students' professional identity formation and commitment to patient safety principles.

Students reflected critically on the persistent gap between theoretical education and clinical reality. Although patient safety is emphasized in academic curricula, students reported challenges applying theoretical principles in dynamic clinical environments. This theory–practice gap is a well-documented issue in nursing education (Carvello et al., 2024; Tambunan, 2024). Participants proposed the use of simulation-based learning, specialty-specific clinical training, and case-based discussions as strategies to strengthen the link between academic preparation and clinical competencies. Carvello et al. (2024) also noted that inconsistencies between what students learn and what they observe in practice can cause confusion and hinder skill development. Incorporating evidence-based educational frameworks such as the AACN Essentials and implementing long-term educational programs that integrate theory and clinical practice are essential to address this gap (Park and Yeom, 2025).

The study findings also revealed that inadequate communication among healthcare team members, limited material resources, and routine-driven care practices were significant barriers to maintaining patient safety during clinical placements. These findings are consistent with those of Vaismoradi et al. (2020) and Hooiveld (2024), who reported that insufficient resources and poor interprofessional communication increase the risk of adverse events. Participants emphasized that effective, timely, and clear communication is crucial for ensuring patient safety. This is in line with Durham and Alden (2008), who attributed up to 70% of adverse events to communication failures. Negative interactions with overburdened or disengaged staff further compounded students' difficulties in adhering to safety practices.

Personnel shortages and burnout were highlighted as systemic factors adversely affecting patient care quality and safety, as noted by Hooiveld (2024). High workloads compromise the ability of staff nurses to mentor students effectively and maintain patient safety standards. Furthermore, exposure to disrespectful or dismissive attitudes among staff was cited as detrimental to students' learning environment (Keil and Ward, 2019). Strengthening leadership, ensuring adequate staffing, promoting positive interprofessional collaboration, and enforcing adherence to clinical guidelines are essential organizational strategies for improving patient safety culture and supporting student learning (Mistri et al., 2023).

A critical component of patient safety identified in the study was the importance of creating a supportive environment for reporting adverse events and near misses. Students acknowledged the necessity of learning from adverse events; however, barriers such as fear of blame, complex reporting procedures, and perceived futility of reporting often discour-

aged them from formally reporting incidents (Majda et al., 2024). The findings echo those of Gropelli and Shanty (2018), who emphasized the need for a non-punitive culture where errors are viewed as opportunities for learning and system improvement rather than individual fault. Educators and clinical leaders must promote transparent communication, encourage incident reporting, and model constructive responses to errors to foster a culture of safety. Moreover, consistent with Bressan et al. (2021), the study underlines the importance of training students early in their education on how to recognize, report, and respond to patient safety incidents. Integrating these practices into clinical rotations and developing open dialogue about safety challenges can enhance students' competencies in risk management and quality improvement.

To this end, we recommend implementing structured simulation-based safety training tailored to department-specific risks, mentorship development programs that emphasize accountability and inclusion, and regular interdisciplinary safety briefings involving students, nurses, and educators. Introducing reflective practice sessions and feedback mechanisms during clinical placements could also facilitate experiential learning and continuous safety improvement.

The transition from passive observers to active participants in patient safety efforts is crucial for postgraduate students, who are approaching entry into independent practice. Their reflections suggest that building a strong foundation in safety reporting behaviors during training can contribute to more resilient and safer healthcare systems.

Study limitations

This study has several limitations. Voluntary participation together with the proposed sampling method could have introduced self-selection bias, with students holding strong opinions being more likely to participate. The use of snowball sampling may have contributed to sample homogeneity, potentially limiting the diversity of perspectives captured in the data. Data were based on self-reported reflections, which may be influenced by recall bias or social desirability. Reflective thematic analysis, while insightful, is interpretive and subject to researcher bias. Future studies should include broader samples and longitudinal approaches to strengthen findings.

Conclusion

Postgraduate nursing students' reflections reveal key challenges to providing safe care during clinical placements, shaped by mentorship quality, theory–practice integration, communication, resources, and reporting culture. Addressing these issues calls for systemic efforts in education, clinical support, leadership, and culture. These efforts should include enhanced simulation-based learning aligned with department-specific safety risks, structured mentorship programs that promote accountability and inclusion, and transparent systems for reporting and learning from adverse events. By strengthening safety education, fostering supportive environments, and encouraging open communication, institutions can better prepare students for safe, effective practice.

Ethical considerations

The study was approved by the Ethics Committee of the Jesenius Faculty of Medicine in Martin, Comenius University in Bratislava (Ref. No. 37/2023), under the affiliation of the KEGA project.

Author contribution

All listed authors confirm that they participated in the development of the manuscript in the following ways: conception and design or analysis and interpretation of the data; drafting the article or revising it critically for important intellectual content, and final approval of the version to be published.

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Conflict of interest

The authors have no conflict of interest to declare.

References

- Bressan V, Causero G, Stevanin S, Cadarin L, Zanini A, Bulfone G, Palese A (2021). Nursing Students' Knowledge of Patient Safety and Development of Competences Over their Academic Years: Findings from a Longitudinal Study. *Zdr Varst* 60(2): 114–123. DOI: 10.2478/sjph-2021-0017.
- Braun V, Clarke V (2022a). *Thematic analysis: A practical guide*. London: SAGE Publications, 376 p.
- Braun V, Clarke V (2022b). Toward good practice in thematic analysis: Avoiding common problems and becoming a knowing researcher. *Int J Transgend Health* 24(1): 1–6. DOI: 10.1080/26895269.2022.2129597.
- Cant R, Ryan C, Hughes L, Ossenberrg C, Cooper S (2024). Nursing student voices: A qualitative thematic synthesis of education elements supporting nursing students' clinical learning during placement. *Nurse Educ Pract* 80: 104150. DOI: 10.1016/j.nepr.2024.104150.
- Carvello M, Lupo R, Rum G, Vitale E, Conte L, Cremonini V (2024). Mind the Gap Between Theory and Practice: Nursing Students and Tutors in Comparison. *J Client-Center Nurs Care* 10(3): 223–230. DOI: 10.32598/JCCNC.10.3.630.1.
- Durham CE, Alden KR (2008). Enhancing Patient Safety in Nursing Education Through Patient Simulation. In: Hughes RG (Ed.). *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville (MD): Agency for Healthcare Research and Quality (US); Chapter 51.
- Gradišnik M, Fekonja Z, Vrtnjak D (2024). Nursing students' handling patient safety incidents during clinical practice: A retrospective qualitative study. *Nurse Educ Today* 132: 105993. DOI: 10.1016/j.nedt.2023.105993.
- Gropelli T, Shanty JA (2018). Nursing Students' Perceptions of Safety and Communication Issues in the Clinical Setting. *J Nurs Educ* 57(5): 287–290. DOI: 10.3928/01484834-20180420-06.
- Hooiveld J (2024). How staffing shortages affect patient safety in healthcare and nursing. [online] [ci. 2025-03-17]. Available from: <https://www.patientsafety.com/en/blog/staffing-shortages-affects-patient-safety>
- Keil S, Ward K (2019). Nurses' attitudes and behaviors during bachelor of nursing students' clinical learning experiences. *J Nurs Educ Pract* 10(2): 24–32. DOI: 10.5430/jnep.v10n2p24.
- Kohanová D, Bartoníčková D, Kurucová R, Žiaková K (2023). Factors influencing nursing students' perception of patient safety. *Kontakt* 25(4): 266–275. DOI: 10.32725/kont.2023.040.
- Kurt Y, Turhal E, Batmaz F (2024). Nursing students' processes of taking role models and being role models: A descriptive phenomenological study. *Nurse Educ Today* 132: 106015. DOI: 10.1016/j.nedt.2023.106015.
- Machitidze M, Gocashivili M, Durglishvili N (2023). The Nurses' Role in Patient Safety – Literature Review. *Am J Biomed Sci Res* 18(6): 612–616. DOI: 10.34297/AJBSR.2023.18.002533.
- Majda A, Majkut M, Wróbel A, Kurowska A, Wojcieszek A, Kołodziej K, et al. (2024). Perceptions of Clinical Adverse Event Reporting by Nurses and Midwives. *Healthcare (Basel)* 12(4): 460. DOI: 10.3390/healthcare12040460.
- Makhaya TS, Lethale S, Mogakwe LJ (2023). Factors influencing the clinical mentoring of nursing students at a hospital in the North West Province. *Int J Afr Nurs Sci* 19: 100629. DOI: 10.1016/j.ijans.2023.100629.
- Mamaghani AE, Rahmani A, Hassankhani H, Saunders C, Dean S, Ferguson C, Irajpour A (2019). Effective Characteristics of Iranian Nursing Students in Their Relationship with Clinical Nurses. *J Caring Sci* 8(3): 173–179. DOI: 10.15171/jcs.2019.025.
- Mistri IU, Badge A, Shahu S (2023). Enhancing Patient Safety Culture in Hospitals. *Cureus* 15(12): e51159. DOI: 10.7759/cureus.51159.
- Moghaddam RH, Aghamohammadi V, Jafari M, Absalan M, Nasiri K (2020). Challenges Faced by Nursing Students to Work with Nursing Personnel: A Qualitative Study. *Adv Med Educ Pract* 11: 313–319. DOI: 10.2147/AMEP.S246901.
- Oshodi TO, Sookhoo D (2025). Nursing students' perceptions of inadequate nurse staffing in the clinical learning environment – a systematic narrative review. *Nurse Educ Pract* 82: 104221. DOI: 10.1016/j.nepr.2024.104221.
- Park HY, Yeom I (2025). Effects of patient safety education programs on nursing students' knowledge, attitude, and competency with patient safety: A systematic review, meta-analysis, and meta-regression. *Nurse Educ Today* 150: 106675. DOI: 10.1016/j.nedt.2025.106675.
- Sadler F, Snively E (2023). Essential qualities and characteristics of a good nurse. [online] [cit. 2025-03-17]. Available from: <https://www.relias.com/blog/qualities-and-characteristics-of-a-good-nurse>
- Song MO, Kim S (2023). The Experience of Patient Safety Error for Nursing Students in COVID-19: Focusing on King's Conceptual System Theory. *Int J Environ Res Public Health* 20(3): 2741. DOI: 10.3390/ijerph20032741.
- Tambunan EH (2024). Theory-Practice Gap During Clinical Learning: A Descriptive Qualitative Study of Nursing Students' Experiences and Perceptions. *J Caring Sci* 13(2): 74–81. DOI: 10.34172/jcs.33251.
- Vaismoradi M, Tella S, A Logan P, Khakurel J, Vizcaya-Moreno F (2020). Nurses' Adherence to Patient Safety Principles: A Systematic Review. *Int J Environ Res Public Health* 17(6): 2028. DOI: 10.3390/ijerph17062028.
- WHO (2023). *Global patient safety action plan 2021–2030: towards eliminating avoidable harm in health care*. Geneva: World Health Organization. [online] [cited 2025-03-17]. Available from: <https://www.who.int/teams/integrated-health-services/patient-safety/policy/global-patient-safety-action-plan>
- Yılmaz A, Erdem Ö (2023). Patient safety competence of nursing students and affecting factors. *J Patient Saf Risk Manag* 29(1): 54–62. DOI: 10.1177/25160435231213302.