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REVISTA IBERO-AMERICANA DE SAÚDE E ENVELHECIMENTO
REVISTA IBERO-AMERICANA DE SALUD Y ENVEJECIMIENTO

CLINICAL SUPERVISION OF NURSING STUDENTS IN PROMOTING PATIENT SAFETY: SCOPING REVIEW

SUPERVISÃO CLÍNICA EM ESTUDANTES DE ENFERMAGEM NA PROMOÇÃO DA SEGURANÇA DO PACIENTE: SCOPING REVIEW

SUPERVISIÓN CLÍNICA EN ESTUDIANTES DE ENFERMERÍA EN LA PROMOCIÓN DE LA SEGURIDAD DEL PACIENTE: SCOPING REVIEW

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Received/Recebido: 2025-05-19 Accepted/Aceite: 2025-07-17 Published/Publicado: 2025-07-18

DOI: [http://dx.doi.org/10.60468/r.riase.2025.11\(1\).745.88-97](http://dx.doi.org/10.60468/r.riase.2025.11(1).745.88-97)

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VOL. 11 NO. 1 APRIL 2025

Abstract

Introduction: Clinical supervision in nursing education aims to structure learning and develop professional, analytical and reflective skills. This process is essential to ensure patient safety, which is a shared responsibility between health professionals, managers, users and their families. **Objective:** To map the scientific evidence on clinical supervision of nursing students in the context of patient safety. **Methods:** A three-stage scoping review was carried out in the CINAHL and MEDLINE databases, with the following research question: "What is the importance of clinical supervision on nursing students in terms of patient safety?". The search yielded 56 articles, which after being subjected to inclusion and exclusion criteria, resulted in 8 eligible for analysis. The articles were published between 2019 and 2024. **Results:** Clinical supervision is fundamental to the development of nursing students' competences in patient safety, especially during internships. Learning takes place mainly through observation of supervisors, and it is essential that they have the right characteristics. In addition, a punitive culture towards errors can lead to their omission, but reflection on errors should be seen as a learning opportunity, promoting patient safety. **Conclusion:** Clinical supervision is essential to ensure the safe transition of students into professional practice, with enormous importance for patient safety. Contact time with the supervisor and reflection on errors are crucial for this learning.

Keywords: Clinical Supervision; Nursing; Patient Safety; Preceptorship; Review.

Resumo

Introdução: A supervisão clínica no ensino da enfermagem tem como objetivo estruturar a aprendizagem e desenvolver competências profissionais, analíticas e reflexivas. Esse processo é essencial para garantir a segurança do doente, que é uma responsabilidade compartilhada entre profissionais de saúde, gestores, utentes e as suas famílias. **Objetivo:** Mapear a evidência científica sobre a supervisão clínica em estudantes de enfermagem no contexto da segurança do doente. **Métodos:** Foi realizada uma *Scoping Review* com três etapas de pesquisa nas bases de dados CINAHL e MEDLINE, com a seguinte pergunta de pesquisa: "Qual a importância da supervisão clínica em estudantes de enfermagem na segurança do doente?". Obteve-se com a pesquisa 56 artigos, que após serem submetidos a critérios de inclusão e exclusão, resultaram em 8 elegíveis para análise. Os artigos foram publicados entre 2019 e 2024. **Resultados:** A supervisão clínica é fundamental para o desenvolvimento das competências dos estudantes de enfermagem na segurança do doente, especialmente durante os estágios. A aprendizagem ocorre principalmente por observação dos supervisores, sendo essencial que estes possuam características adequadas. Além disso, uma cultura punitiva sobre erros pode levar à omissão dos mesmos, mas a reflexão sobre os erros deve ser encarada como uma oportunidade de aprendizagem, promovendo a segurança do doente. **Conclusão:** A supervisão clínica é essencial para garantir a transição segura dos estudantes para a prática profissional, com enorme importância na segurança do doente. O tempo de contato com o supervisor e a reflexão sobre os erros são cruciais para essa aprendizagem.

Palavras-chave: Enfermagem; Preceptoría; Revisão; Segurança do Paciente; Supervisão Clínica.

Resumen

Introducción: La supervisión clínica en la formación de enfermería tiene como objetivo estructurar el aprendizaje y desarrollar las competencias profesionales, analíticas y reflexivas. Este proceso es esencial para garantizar la seguridad del paciente, que es una responsabilidad compartida entre los profesionales sanitarios, los gestores, los usuarios y sus familias. **Objetivo:** Mapear la evidencia científica sobre la supervisión clínica de estudiantes de enfermería en el contexto de la seguridad del paciente. **Métodos:** Se realizó una revisión de alcance en tres etapas en las bases de datos CINAHL y MEDLINE, con la siguiente pregunta de investigación: «¿Cuál es la importancia de la supervisión clínica en estudiantes de enfermería en términos de seguridad del paciente?». La búsqueda arrojó 56 artículos, que, tras ser sometidos a criterios de inclusión y exclusión, dieron como resultado 8 elegibles para el análisis. Los artículos fueron publicados entre 2019 y 2024. **Resultados:** La supervisión clínica es fundamental para el desarrollo de las competencias de los estudiantes de enfermería en seguridad del paciente, especialmente durante las prácticas. El aprendizaje se produce principalmente a través de la observación de los supervisores, y es esencial que tengan las características adecuadas. Además, una cultura punitiva hacia los errores puede llevar a omitirlos, pero la reflexión sobre los errores debe verse como una oportunidad de aprendizaje, promoviendo la seguridad del paciente. **Conclusión:** La supervisión clínica es esencial para garantizar la transición segura de los estudiantes a la práctica profesional, teniendo una enorme importancia en la seguridad del paciente. El tiempo de contacto con el supervisor y la reflexión sobre los errores son cruciales para este aprendizaje.

Descriptores: Enfermería; Preceptorado; Revisión; Seguridad del Paciente; Supervisión Clínica.

Introduction

Clinical supervision is defined as a process that monitors and develops professional skills, ensuring quality of care, patient safety and professional satisfaction. It involves collaborative processes, mediation, and joint reflection, where supervisors guide students in their learning and professional development. The supervisor-student relationship is central to this process, as it provides a supportive environment for students to acquire and refine their clinical skills^(1,2).

This supportive environment enables students to navigate their learning experiences effectively, ultimately leading to improved performance and a stronger personal and professional identity in their nursing practice^(1,3).

Clinical supervision is a process whereby supervisors guide students in developing their professional skills through reflection, joint problem solving and decision making. This process is essential for nursing students, as it helps them understand the complexities of clinical practice, where they encounter new, complex and unpredictable situations^(1,3).

Clinical supervision significantly impacts nursing students' decision-making in patient care, promoting the development of professional skills and improving their understanding of quality of care and patient safety^(1,4).

Clinical supervision in nursing is a crucial element in ensuring patient safety, as it plays an essential role in the development of nursing students' professional and reflective skills. This process not only structures learning, but also promotes quality and safety in care provision, reducing the occurrence of adverse events.

Clinical supervision promotes a culture of safety by encouraging nursing students to identify and report potential errors. Supervisors create an environment where students feel comfortable discussing their concerns and seeking clarification on uncertain procedures. This open communication helps prevent errors by addressing issues before they arise or escalate⁽⁵⁾. In addition, clinical supervision promotes reflective practice, enabling students to critically analyse their

actions and decisions. This reflective process helps students identify patterns in their mistakes and develop strategies to avoid them in the future⁽¹⁾.

The literature highlights that supervisors' characteristics, such as professional experience, aptitude for guidance, and conflict resolution skills, are crucial for promoting reflective practice and learning from mistakes. These aspects contribute to a successful transition of students from school to the clinical setting and to the performance of professional practice^(3,4,6).

Furthermore, increased contact time between supervisor and student is directly associated with better learning outcomes and reduced risks associated with care provision^(4,6).

A qualitative study involving undergraduate nursing students highlighted the importance of supervision strategies adapting to students' learning needs and objectives, facilitating the development of critical thinking skills⁽⁷⁾. The same authors add that critical thinking is a cornerstone of effective decision-making in nursing and that clinical supervision strategies, such as guided reflection and feedback, have been shown to promote critical thinking in nursing students.

Feedback is a critical component of clinical supervision. Supervisors provide constructive feedback that helps students evaluate their performance and identify gaps in their knowledge or skills. This feedback cycle not only enhances students' critical thinking but also builds their confidence in applying theoretical knowledge to practical situations^(3,7).

Clinical supervision creates an environment where students feel encouraged to question and explore different perspectives. This curiosity-driven approach to learning is essential for the development of critical thinking skills, as it leads students to seek additional information, challenge assumptions, and consider multiple points of view before making decisions⁽³⁾.

Nursing students often enter clinical settings with theoretical knowledge but may lack the practical experience necessary for its effective application. Clinical supervision fills this gap by providing students with the opportunity to apply their knowledge in real-life situations under the guidance of experienced professionals.

Supervisors can identify knowledge gaps and address them through targeted teaching and feedback⁽⁸⁾.

Clinical supervision provides nursing students with opportunities for feedback and reflective practice, which are vital for learning from mistakes and improving patient safety. A qualitative study with nursing students on placement revealed that feedback from supervisors helped them to understand the reasons behind their mistakes and improve their clinical performance⁽⁹⁾. Similarly, another study emphasised the importance of reflective practice in clinical supervision, enabling students to develop a deeper understanding of patient safety issues and their role in preventing adverse events⁽¹⁰⁾.

Several factors influence nursing students' decision-making abilities, including their clinical experience, the quality of supervision, and the learning environment. A study of nursing students found that the dynamic and uncertain nature of clinical contexts often challenges their ability to apply theoretical knowledge to practical situations. However, clinical supervision can mitigate these challenges by providing guidance and support, enabling students to make informed and effective decisions^(11,12).

The quality of the supervisory relationship significantly influences the effectiveness of clinical supervision in promoting patient safety. Studies suggest that supportive and challenging relationships between supervisors and students create an environment conducive to learning and professional growth^(13,14).

The active participation of nursing students in the clinical supervision process is crucial to its success. Students who engage fully in reflective discussions, seek feedback, and take initiative to address their learning needs are more likely to benefit from clinical supervision and thus reduce their chances of error^(1,15).

The use of technologies such as simulation-based training and electronic health records can enhance the effectiveness of clinical supervision. These tools provide students with opportunities to practise and refine their skills in a controlled environment, reducing the likelihood of errors in real clinical settings^(5,8). In addition, access to educational resources, such as

simulation-based training and case studies, can enhance students' learning experiences and prepare them for real-world challenges⁽¹⁶⁾.

Patient safety is a primary concern in clinical supervision. Supervisors should emphasise the importance of safe practices and encourage students to identify potential risks and errors in care provision. By integrating patient safety into the supervision process, students can develop the skills necessary to prevent errors and improve the quality and safety of care provided^(17,18). Students who receive effective clinical supervision demonstrate a better understanding and application of patient safety principles both in the classroom and in clinical settings⁽¹⁹⁾.

Considering the Global Action Plan for Patient Safety (2021-2030)⁽⁶⁾ which prioritises the elimination of preventable harm related to unsafe care, this study aims to map the evidence of the importance of clinical supervision in nursing students for patient safety.

Methods

This review followed the Scoping Review protocol proposed by the Joanna Briggs Institute^(20,21). This protocol seeks to map the main studies on a given subject and present a summarised description based on the results found. In this case, it allowed us to identify and summarise the scientific evidence on the importance of clinical supervision in nursing students in promoting patient safety.

Thus, the question that guided the study was: "How important is clinical supervision in nursing students for patient safety?" The review question was based on the PCC strategy, where the Population (P) is the Patient (search term Patient); the Concept (C) is Clinical Supervision (search term Clinical Supervision or Preceptorship); and, finally, the Context (C) is Patient Safety (search term Patient Safety).

The PRISMA guidelines were followed.

Information Sources and Search Strategies

The search was conducted on 04/10/2024 in the CINAHL and MEDLINE with Full Text databases, as these are high-impact databases with publications between 2019 and 2024 in Portuguese, English, Spanish, and French.

The descriptors were used in the following order [(patient)] AND [(clinical supervision) or (preceptorship)] AND [(Patient Safety)].

Inclusion and exclusion criteria

The inclusion criteria were articles written in Portuguese, English, Spanish, and French, published between 2019 and 2024, and available in full text to obtain the most recent and up-to-date literature.

In addition, it was decided to exclude dissertations, theses, partially available research, and duplicates.

Study selection process

The search was conducted in the CINAHL and MEDLINE databases, where a total of 56 articles were initially identified. After removing duplicate articles, 54 articles remained for analysis. All of these articles were evaluated by title, resulting in the exclusion of 41 articles. The remaining 13 articles were evaluated by abstract, of which 2 were excluded for not meeting the desired criteria.

During the eligibility process, 11 articles were analysed in full. After this analysis, 7 articles were excluded because they did not meet the previously established inclusion criteria. However, 5 additional articles were identified by consulting the bibliographic references of the included studies, which were considered relevant and added to the review. This resulted in a total of 9 studies that were included in the Scoping Review. Figure 1 shows the article selection process.

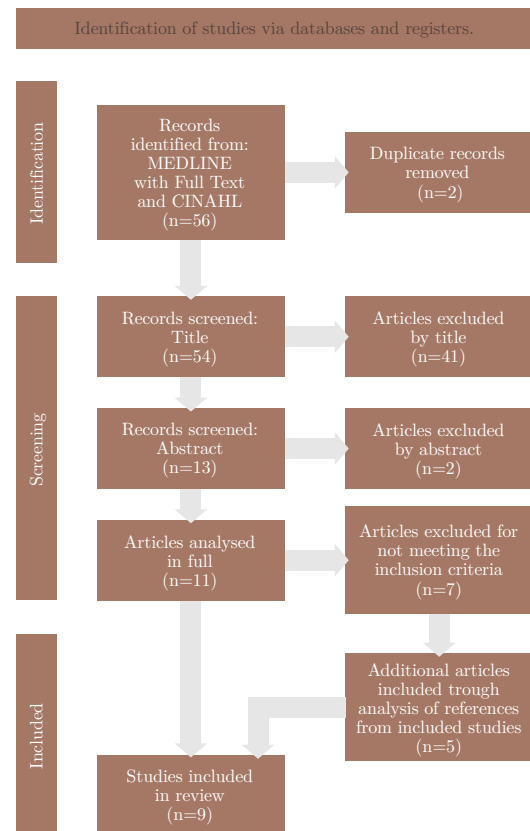


Figure 1: PRISMA flowchart of the study selection process²².

Results

After assessing the eligibility of the articles, they were screened, resulting in the selection of nine studies for critical analysis. To systematise the results, Table 1 (Summary of article analysis) was created, which includes the following information for each article: author identification, year and country of origin, type of study, data collection instruments, sample participants, general objective, and main conclusions.

Table 1: Summary of the analysis of the studies.

Study Reference/Country	Aim	Type of study	Participants	Data Collection Instruments	Results
23 Portugal.	Analyse a critical incident involving the clinical supervision of a nursing student.	Qualitative Study.	A nursing student.	Semi-structured interview, conducted in person.	Reflection on professional practice is considered one of the ways to contribute to the quality of care provided. Create environments conducive to sharing and subsequent learning by healthcare teams about errors associated with healthcare.
24 Indonesia.	To evaluate the relationship between the application of the clinical learning model and the implementation of patient safety programmes by nursing students.	Quantitative Study.	114 nursing students from the University of North Sumatra.	Two questionnaires: One on the role of clinical perception consisting of 9 items, including as facilitator, trainer, educator, model and evaluator. Another on the implementation of patient safety programmes by students, consisting of 10 items, including improving patients, improving effective communication, increasing the safety of the use of medications that require close monitoring, reducing the safety risk on the part of healthcare professionals and reducing the risk of falls.	Better supervision contributes to safer practices. It is important to systematise and continuously develop the supervision model to strengthen nursing students' practices and ensure the application of safety practices. The supervision model not only improves nursing students' skills but also improves the quality of care and patient safety.
25 Brazil.	Map the factors involved in accidents that compromise patient safety and contribute to the phenomenon of 'secondary victimisation' among nursing students.	Qualitative Study.	23 nursing students in their ninth and tenth semesters of the course.	Semi-structured interviews, conducted in person and online.	Failures in communication between healthcare teams, lack of protocols and equipment that prioritise patient safety, and factors related to the teaching-learning process favour the occurrence of patient safety incidents and contribute to the phenomenon of secondary victimisation among nursing students.
26 China.	Exploring stressors and coping styles among nursing students during the intermediate period of clinical training.	Qualitative Study.	10 third-year nursing students.	Structured interviews.	Nursing students experienced various stressors. Targeted interventions should be formulated and implemented to alleviate stress and promote the adoption of effective coping styles.
27 Portugal.	Analyse the factors associated with errors made by nursing students during clinical learning and examine the perception of these errors by the students themselves.	Mixed methods.	41 nursing students in their 2 nd and 4 th years of the course.	Questionnaire administered during the first week of clinical teaching on <i>locus</i> of control, general self-efficacy, stress levels, and moral development, followed by interviews conducted after the end of clinical teaching.	Errors made by students were identified at various levels: <ul style="list-style-type: none"> • In the implementation of care. • In the preparation of medication. • In the identification of needs. • In the planning of interventions. • In the evaluation of care. The students recognised their errors and attributed the reasons for them to themselves, as well as what would have prevented them from occurring.
28 Portugal.	Reflect on the contributions of clinical supervision to the development of nurses and future nurses in health services.	Reflective analysis by the authors.	Not applicable.	Not applicable.	In Portugal, nurses actively participate in the training of nursing students. There are four important attributes for the learning process: environment and physical space, psychosocial and interaction factors, effectiveness of teaching by the preceptor, involvement of students and the educational institution, and organisational culture.
14 Norway.	Investigate the influence of clinical supervision provided to nursing students by nursing facilitators in hospital settings and examine the relationship between this clinical supervision and patient safety.	Descriptive correlational cross-sectional study.	66 nursing students.	Manchester Clinical Supervision Scale (MCSS), Supervision Effects Scale (ESS), Focus on Empowerment Scale (FEES).	With clinical supervision, there was: <ul style="list-style-type: none"> • Participation of patients and family members. • Nursing students reported greater awareness and a significant improvement in interpersonal, professional, and communication skills. Clinical supervision can contribute to personal growth and a caring attitude towards patients.
29 Brazil.	Identify the potential of the nursing training process based on the views of already trained nurses regarding their professional practice and integration into the world of work.	Descriptive, exploratory study with a quantitative-qualitative approach.	198 nurses.	Questionnaire with seven questions inserted into the Survey Monkey platform.	The nurses indicated the institutional tradition of the university, teacher training, the ease of teacher-student relationships, and experience with extracurricular activities as strengths of their training. They indicated topics that could be strengthened during their academic career to prepare them for professional integration, such as increasing the number of practical hours, improving the relationship between academia and health service preceptorship, strengthening the teaching of management, autonomy, leadership and decision-making, professional empowerment, among others. They demonstrated the importance of preparing for work through their own work experience and through continuing education.
30 Australia.	Provide healthcare students and early-career healthcare professionals involved in peer-to-peer and quasi-peer teaching with an overview of important approaches and tips for teaching in the clinical setting.	Literature review	Not applicable.	Not applicable.	To optimise learning and maximise student engagement, learning activities in clinical practice should be planned, structured and aligned with the curriculum and respective assessment. Role modelling plays a critical role in influencing student learning and behaviour. Role modelling by professionals and students assists in the development of students' professional skills, values, and attitudes. Feedback plays a crucial role in the learning process. By observing and providing students with accurate feedback, the gap between actual and desired performance is reduced.

Discussion

In general, the selected studies report the importance of clinical supervision in the training of nursing students.

Two studies report the importance of clinical supervision in the context of nursing student training, especially in more practical areas, as it fosters the development of technical and behavioural skills that are fundamental to future professional performance^(25,28). In fact, this is crucial and essential to ensure

patient safety, not only for the healthcare professionals who supervise them, but also for professionals in educational institutions, as reported by Betriana & Nilmanat⁽³¹⁾. Similarly, another previous study reports that clinical supervision increases patient safety by improving communication, professional skills, and interpersonal skills among nursing students, promoting greater patient participation, user involvement, and supportive relationships, ultimately leading to a better understanding of patient needs and quality of care⁽¹⁴⁾.

Similarly, another study reports that the supervising nurse and the clinical supervision adopted by them play a crucial role in promoting patient safety by nursing students⁽²⁴⁾, which is corroborated by also by Betriana & Nilmanat⁽³¹⁾. In fact, clinical supervision strategies are essential for nursing students, as they facilitate the development of critical thinking and decision-making skills necessary for effective problem solving and ethical decision-making in emergency situations, ultimately enhancing professional responsibility and quality of care⁽⁷⁾.

Supervisors spend a lot of time with students, playing a key role in their training and in promoting patient safety⁽²⁶⁾. This is corroborated by Puspita Sari *et al*⁽³²⁾, which reports that clinical supervision significantly increases nursing students' patient safety skills, as evidenced by a strong correlation ($p < 0,05$).

During their training, it was found that nursing students develop most of their skills during supervised internships, where they are exposed to real clinical practice contexts. This experience provides them with an opportunity to consolidate their theoretical knowledge and apply it in clinical practice^(25,26). This consolidation of theoretical knowledge and its application in clinical practice is fostered by collaborative processes, allowing students to adapt their responses to emergency situations based on their evolving skills and experiences⁽¹⁾. In fact, deciding in urgent situations means that students need to learn how to make informed decisions under pressure, which is super important in these moments⁽³³⁾. Clinical supervision increases nursing students' self-efficacy and confidence by providing emotional, educational, and organisational support, which facilitates skill acquisition and improves communication skills, ultimately leading to safer and higher-quality patient care during the care-giving process⁽³⁴⁾.

A collaborative approach where students can share experiences and learn from their peers enhances their clinical skills. Clinical supervision has a significant impact on nursing students' self-efficacy, promoting positive relationships with clinical staff, improving their learning environment and providing the necessary support. This, in turn, increases their confidence in providing safe, quality patient care and developing professional skills⁽³⁵⁾.

During the acquisition of skills, appropriate supervision allows students to develop essential skills for their future profession, namely clinical reasoning, critical thinking and effective communication, which are essential factors for providing quality and safe healthcare^(14,25,26,28,29). Similarly Suryani⁽³⁶⁾ reports that effective supervision promotes understanding of patient safety protocols, ultimately improving the quality of care and minimising the risks associated with student-led interactions with patients.

Several studies report that students learn mainly through observation and imitation, and therefore it is important that supervisors possess certain characteristics that enable them to be facilitators, educators, trainers, and mediators^(24,28,30). Supervisors model effective decision-making strategies, providing students with frameworks for approaching complex clinical situations⁽¹⁾.

The supervisor's role includes promoting conflict resolution, facilitating socialisation and fostering learning, while ensuring patient safety and the provision of quality care^(24,28).

With regard to errors, it was found that most of the errors made by students occur in the absence of supervisors, with the most frequent errors being based on incorrect identification of the patient and inappropriate administration of therapies^(23,24,26,27). Therefore, closer and constant supervision is essential in order to prevent errors during clinical care^(23,27). This is corroborated by Shahzeydi *et al*⁽⁹⁾, which reports that clinical supervision significantly increased the competence of nursing students in medication safety, leading to a better understanding of medication administration principles and a reduction in medication errors through reflective feedback and improved clinical practices. The same authors report that structured supervision provided by supervisors helps students

understand their mistakes and encourages the use of reliable nursing resources, which enhances their clinical decision-making skills.

One aspect that we consider relevant was the evidence of a punitive culture regarding mistakes, which can lead nursing students to omit incidents^(27,30). This situation intensifies the responsibility of supervisors to create an environment of trust and safety that encourages the reporting of errors, because only in an environment that values transparency is it possible to promote learning from mistakes, minimising their recurrence^(23,25,27,30).

Finally, reflection on errors was identified as an important strategy in the learning process. Both students and supervisors should work together to analyse the underlying causes of incidents, identifying vulnerabilities in the healthcare system. This approach contributes to the development of skills to prevent future errors and reinforce patient safety^(23,25,27,30).

Thus, the correct practice of clinical supervision becomes extremely important in promoting patient safety.

Conclusion

Effective clinical supervision is essential for the development of nursing students' skills, contributing directly to patient safety. The context of clinical supervision is crucial for the development of nursing students' skills, with contact time with the supervisor being one of the most important factors for learning. In this context, it is worth highlighting some characteristics of supervisors, such as facilitators, educators and trainers, promoting conflict resolution and opting for reflective practice and learning from mistakes.

Thus, it can be concluded that clinical supervision is extremely important in ensuring patient safety, as it allows students to acquire fundamental skills and competencies for their transition to professional practice.

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All authors have read and agreed with the
 published version of the manuscript.

Ethical Disclosures/Responsabilidades Éticas

Conflicts of Interest: The authors have no
 conflicts of interest to declare.

Financial Support: This work has not received
 any contribution, grant or scholarship.

Provenance and Peer Review: Not

commissioned; externally peer reviewed.

Conflitos de Interesse: Os autores declararam
 não possuir conflitos de interesse.

Suporte Financeiro: O presente trabalho não
 foi suportado por nenhum subsídio ou bolsa.

Proveniência e Revisão por Pares: Não
 comissionado; revisão externa por pares.

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