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# Competencies with an emphasis on patient safety during nursing training

Competências com ênfase na segurança do paciente durante a formação em enfermagem

## Competencias con énfasis en la seguridad del paciente durante la formación de enfermería

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#### RESUMO

Objetivo: Sintetizar o conhecimento disponível na literatura nacional e internacional sobre as competências desenvolvidas na durante a formação em Enfermagem com ênfase na segurança do paciente. Método: revisão integrativa da literatura realizada nas bases de dados eletrônicas Scielo, BDENF, LILACS, Mediline, PubMed, CINAHL, Scopus, Web of Science e Medline, que incluiu estudos publicados no período de 2012 a 2018. Resultados: Foram identificados 19 artigos, que desvelaram as competências como identificação, notificação, prevenção e gerenciamento de eventos, controle de infecção, trabalho em equipe, comunicação efetiva, utilização de evidências, informação, agir ético, liderança, aprendizagem contínua e compreensão humana. Conclusão: Os estudos analisados revelam as competências sido pouco abordadas no processo formativo, configurando-se na necessidade de reforma inovadora.

Descritores: Enfermagem; Educação em Enfermagem; Segurança do Paciente.

#### **ABSTRACT**

**Objective:** To synthesize the knowledge available in national and international literature on the skills developed during nursing education with an emphasis on patient safety. **Method:** integrative literature review carried out in the electronic databases Scielo, BDENF, LILACS, Mediline, PubMed, CINAHL, Scopus, Web of Science and Medline, which included studies published from 2012 to 2018. **Results:** 19 articles were identified, who unveiled competences such as identification, notification, prevention and management of events, infection control, teamwork, effective communication, use of evidence, information, ethical action, leadership, continuous learning and human understanding. **Conclusion:** The studies analyzed reveal the skills developed during nursing training with an emphasis on patient safety have been little addressed in the training process, configuring the need for innovative reform.

**Descriptors:** Nursing; Nursing Education; Patient safety.

#### **RESUMEN**

Objetivo: Sintetizar los conocimientos disponibles en la literatura nacional e internacional sobre las habilidades desarrolladas durante la formación en enfermería con énfasis en la seguridad del paciente. Método: revisión integradora de la literatura realizada en las bases de datos electrónicas Scielo, BDENF, LILACS, Mediline, PubMed, CINAHL, Scopus, Web of Science y Medline, que incluyó estudios publicados entre 2012 y 2018. Resultados: Se identificaron 19 artículos, quien develó competencias como identificación, notificación, prevención y gestión de eventos, control de infecciones, trabajo en equipo, comunicación efectiva, uso de evidencia, información, acción ética, liderazgo, aprendizaje continuo y entendimiento humano. Conclusión: Los estudios analizados revelan que las habilidades desarrolladas durante la formación en enfermería con énfasis en la seguridad del paciente han sido poco abordadas en el proceso formativo, configurando la necesidad de una reforma innovadora.

Descriptores: Enfermería; Educación en enfermería; Seguridad del paciente.

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#### Introduction

Ensuring patient safety is a global challenge, taken on by several developed and developing countries that have committed to implementing strategies or interventions capable of exponentially reducing the risk of harm during health care. Professional errors are considered a serious public health problem because they generate significant impacts on patients, professionals and health institutions, needing to be combated in order for the health process to occur safely.

However, achieving this goal has not been an easy task, as it involves several actions and also involves a review of the current professional training in Nursing, especially with regard to the development of specific skills. Investments are essential for training, research and implementation of practices aimed at preventing these errors, which will improve the quality of care provided. At the same time, the topic needs to be treated with priority by health professionals and institutions, in order to expand the promotion of a safety culture in health organizations.<sup>1</sup>

After the publication of the impactful report To Err is Human: Building a Safer Health Care System, from the Institute of Medicine (IOM), in the late 90s, several worldwide mobilizations demanded the implementation of actions to promote the safety culture. According to this report, between 44.00 and 98,000 deaths in the United States due to human error were registered annually, in addition to the persistent high incidence of adverse events in health care.<sup>2</sup> Based on these estimates and after intense social pressure, the World Health Organization (WHO) established, in 2004, the World Alliance for Patient Safety (World Alliance for Patient Safety). As a result, Brazil and other countries began to encourage the development and implementation of public policies in favor of patient safety.<sup>3</sup>

Specifically in the Brazilian context, the National Patient Safety Program (PNSP) and the Resolution of the Collegiate Directorate (RDC) 36/13 are established, both joint actions between the Ministry of Health and the National Health Surveillance Agency (ANVISA). The objective is to implement safety protocols in hospitals and other health services, as well as risk management and the creation of the Patient Safety Center (NSP) and the proper notification system for this purpose.<sup>4</sup>

In this scenario, the participation of Nursing stands out, through the implantation of the Brazilian Network of Nursing and Patient Safety, in 2008. Supported by the Pan American Health Organization (PAHO), this Network has, as its main action, disseminate the relevance of a new approach in relation to these errors and implement a broad and less punitive safety culture in health institutions.<sup>5</sup>

Deficient safety cultures in healthcare are strongly associated with high error rates. Currently, the promotion of attitudes in favor of greater security is impaired, since punitive management models and attitudinal variations in the specific care roles played by different health professionals predominate. Punitive environments, focused on guilt, discourage dialogue and teamwork and compromise changes in levels in the health system that could contribute to greater security, which require continuous and lasting efforts.<sup>6</sup>

These professional errors present in nursing care are largely due to unsafe conduct, such as lack of checking drugs and inappropriate use of personal protective equipment, in addition to being associated with the institutional system, expressed by deficit in the quality of material inputs. and absence of rules and routines. It is important to know that errors do not occur in isolation, as they include the institution and the workers involved in these situations, which denotes the need for a more comprehensive approach.<sup>8</sup>

Thus, the safety culture needs to be discussed and promoted as an important element of education to transform practices. Although it is not an easy task, given the challenge of sensitizing professionals and the adoption of profound changes in care processes.<sup>9</sup>

In this scenario, the identification of curricular innovations aimed at improving patient safety can favor the qualification of teamwork and the development of communication skills among students.10 In the future, this may enhance professional performance through the preparation of extensive reports errors, improve communication between different positions and sectors and the effective implementation of security proceduresa.<sup>11</sup>

Currently, this is a scenario still only idealized, given the various limitations present in the scope of training with an emphasis on patient safety, given that there are profound variations between educational institutions in terms of the quality of the content and curriculum with an emphasis on safety6. In this sense, the relevance of prioritizing patient safety during academic training is highlighted, as a way to strengthen future performance in the workplace.<sup>12</sup>

Academic training in this sense, assumes an important role, especially in facing new challenges and overcoming weaknesses, evidenced in the presence of fragmented, outdated, static curricula and with problems in the skills developed and incompatibility with the real needs of the population. The reflection of this incompatibility is revealed in the conduct with technical, restrictive, noncontextual and discontinuous care.<sup>13</sup>

In view of the limitations, it is advocated that environments that promote safety are encouraged through the adoption of robust, contextual, problematizing curricula that respond to the demands of the population. As a reflex, articulations are expected to form strong teams committed to promoting safe care. In this scenario, the nursing professional has the opportunity to stand out by exercising leadership and to promote the necessary changes and transformations, being able to print higher quality to the assistance.<sup>14-15</sup>

Thus, since Nursing professionals represent an expressive part in the production of health care, crucial to the achievement of international patient safety goals, this study sought to investigate what are the competencies to be developed during nursing training in order to promote patient safety? To this end, the following objective was defined: Synthesize the knowledge available in national and international literature on the skills developed during nursing training with an emphasis on patient safety.

### Method

It is an integrative literature review, a method that allows a broad understanding of the phenomenon of interest, in addition to highlighting knowledge gaps to be explored in new investigations, according to the criteria defined in the Revised Standards for Quality Improvement Reporting Excellence,  $SQUIRE\,2.0.16$ 

The operationalization of this review included five stages: identification of the problem; establishment of inclusion and exclusion criteria for studies and bibliographic research; definition of the information to be extracted from the studies and categorization; evaluation of selected studies; analysis of results and presentation of the review with subsequent synthesis of the knowledge obtained.<sup>17</sup>

The study was organized according to the PICO strategy (P-population; I-intervention / area of interest; C-comparison; O-outcomes / outcome and S=Type of Study). Thus, the structure was considered: P-nurses; I-training skills; C-Without comparison; O-patient safety and S-Qualitative, Descriptive, Experimental Studies (clinical trials and quasi-experiments) or Observational Studies (case reports, case series, control cases, cohort and cross-sectional). It was guided by the following research question: what are the skills to be developed during nursing training in order to favor patient safety?

To answer it, searches were carried out in the scientific databases Electronic Scientific Library Online (SciELO), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Nursing Database (BDENF) of the Latin American and Caribbean Center of Health Sciences Information (BIREME) Latin American and Caribbean Health Sciences Literature (LILCAS), Sciverse Scopus (SCOPUS) Elsevier, Medical Literature Analysis and Retrieval Sistem Online (Medline), PubMed from the National Library of Medicine and Web of Science.

The searches for the manuscripts took place by inserting the controlled descriptors Nursing, Nursing Education and Patient Safety, present in the Health Sciences Descriptors Bank (DeCS) and in the Medical Subject Headings (MeSh). For titles, the descriptors CINAHL Nursing, Patient Safety and Education, Nursing were used. Data collection took place between the months of May and July 2018, through the junctions: junctions: Nursing AND Patient Safety AND Education, Nursing; Education, Nursing AND Patient Safety; Nursing AND Patient Safety.

The uncontrolled terms (keywords) were: Nursing training, Training skills. To systematize the sample collection, the combination of Boolean operators "OR" and "AND" was used and, then, different search strategies were applied, considering the peculiarities and distinct characteristics of the accessed bases. The syntax of the searches in each database is described in the overview table.<sup>1</sup>

The studies included in this review obeyed the following criteria: being an article, available in full, in English, Spanish or Portuguese, that answered the guiding question of the research, with no time frame. Repeated publications in databases, reviews, conference abstracts, annals of scientific events, editorials, monographs, dissertations, theses, as well as investigations with unclear design or objective were excluded, as instructed by the instrument adapted from the Critical Appraisal Skills Program (CASP).<sup>18</sup>

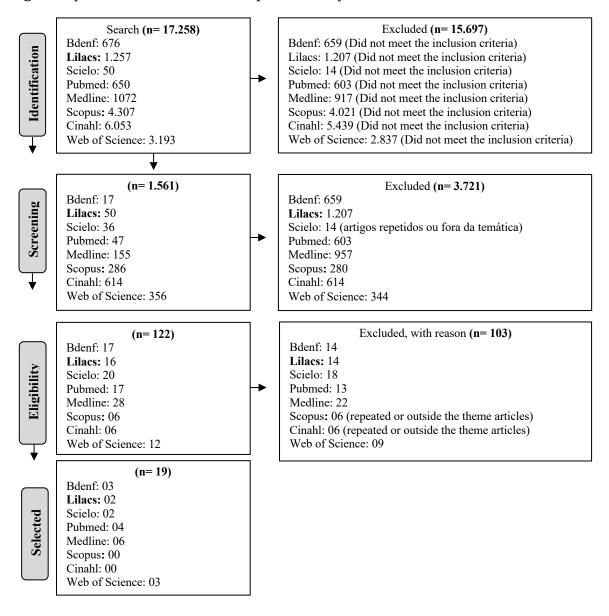
The inclusion of descriptors in the databases was carried out by four authors independently, following the peer review, guided by a checklist previously prepared, also following the checklist proposed by the Preferred Reporting Items for Systematic reviews and Meta-Analyzes (PRISMA), which also allowed to raise the degree of evidence of the studies.

To qualitatively evaluate the methods described in the studies, the Joanna Briggs Institute tools were used: JBI Critical Appraisal Checklist descriptive / Case Series and JBI critical Appraisal Checklist for Comparable Cohort / Case control and, to evaluate observational studies of the case report type, case series and cohort, the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist was used.<sup>19</sup>

After checking the results and agreeing on the disagreements, the studies were analyzed again by a team composed of a master and two doctors, researchers in the area. In this stage, the titles were read, the inclusion criteria were verified, and the abstracts and the full texts were read, for later inclusion in the review. We sought to eliminate any systematic errors or any bias in the measurement of the studies and ensured methodological rigor and reliability of results. <sup>20</sup>

In cases where disagreements occurred, a discussion was held between the evaluators and an analysis by a third evaluator was requested to reach consensus. The results of this process, in turn, allowed the elaboration of synoptic tables based on the selected variables. The syntax of the study inclusion and exclusion process in the review is described below (Figure 1):

Figure 1-Syntax of search and selection of publications by database.



### Results

The findings regarding the characterization of the studies regarding the article identification code (example A1, A2 and subsequent), published journal, year, indexed databases, language, country of origin, degree of evidence and main results, are described below (Table 1):

**Chart 1-** Characterization of publications regarding the main results. Brazil, 2018.

Identification Code (CI) / Periodical of publication / Year / Database / Language / Country of origin / Degree of Evidence.

Main results (competences in nursing education with an emphasis on patient safety).

- **A1 -** Rev. Ana Nery de Enf. 2017. LILACS. Portuguese. Brazil. Degree of Evidence: 6 The contents covered during the training do not prioritize the subject of patient safety and express a focused, curative approach, directed mainly to clinical approaches. Infection prevention and control stood out as competences.
- **A2** Rev. Ana Nery de Enf. 2016. LILACS. Portuguese. Brazil. Degree of Evidence: 6 The following competencies emerged: learning through mistakes, identification and notification, teamwork, cultural transformation, transposition of the biomedical model for comprehensive care, consumption and production of research and permanent health education. The study pointed out the need for curricular changes in training courses and to invest in education on patient safety.
- **A3** Nurse Educ Today. 2018. PubMed. English. Australia. Degree of Evidence: 6 Approaches to teaching patient safety vary considerably between universities. There was a tendency to integrate the disciplines of the undergraduate nursing course in relation to teaching safety skills, instead of being explicitly taught in separate and autonomous disciplines.
- **A4** Worldviews Evid Based Nurs. 2017. PubMed. English. USA. Degree of Evidence: 4 In general, nurses lacked skills in patient safety practices. Those younger and with higher levels of education reported greater competence.
- **A5** PLoS One. 2017. PubMed. English. South Korea. Degree of Evidence: 3 In practice, nursing educators showed high levels of competence in patient safety in comparison with theoretical knowledge in this regard..
- **A6** Text Contexto Enferm. 2015. BDENF. Portuguese. Brazil. Degree of Evidence: 6 The study showed, through the Network's action strategies, nursing education with an emphasis on patient safety, investigation and dissemination of knowledge, mobilization of professionals, care institutions and schools, extension of knowledge to communities and participation in policy making public.
- A7 Rev. Baiana de Enferm. 2017. BDENF. Portuguese. Brazil. Degree of Evidence: 4 The competencies for patient safety identified through the analysis of undergraduate curricula were: effective communication, identification, prevention and management of adverse events, use of evidence and information, working safely, acting ethically, continuous learning and other topics such as infection prevention and control, attention to invasive procedures and improvement in drug therapy. These competencies must be incorporated into the political-pedagogical projects of undergraduate health courses, as well as strategies capable of aligning the contents of the various health disciplines. According to the study, this still occurs in a disjointed and heterogeneous way.
- **A8-** Rev. ideroam. educ. invest. nursing. 2012. BDENF. Portuguese. Brazil. Degree of Evidence: 4

The study indicated high relevance of incorporating patient safety content into the curriculum for improving clinical practice and better positioning the patient at the center of the health system.

- **A9** Rev. Gaúcha Enferm. 2015. Scielo. Portuguese. Brazil. Degree of Evidence: 6 The changes in nursing practice, as a way to improve patient safety, were identified, such as management and proposing a care plan according to the care and physical risks identified in the inpatient unit. It also revealed deficiencies such as the lack of adequate structure, lack of financial resources and deficiency of human resources as elements that hamper patient safety.
- **A10** Revista Gaúcha de Enferm. 2016. Scielo. Portuguese. Brazil. Degree of Evidence: 6 The study concluded that educational measures, as a way of reinforcing the established routine for patient identification, are fundamental for the consolidation of practices, optimizing patient safety in health institutions. In this study, three strategies were used: an institutional

educational campaign, the elaboration of a distance learning (EaD) course and the creation and availability of a course, in the EaD modality, on the risk identification process. The need for complementary research was also highlighted, to monitor this and other indicators that may indicate weaknesses and opportunities for improvements in patient safety.

**A11** - Nurse Education in Practice. 2016. Mediline. English. USA. Degree of Evidence: 6 The introduction of the subject of patient safety in the training of nurses is an example of an innovative reform that associates higher education institutions with health organizations to better prepare nursing students who will soon be working in the complex healthcare environment. Through the intentional integration of Quality and Safety Education for Nurses (QSEN) across the curriculum and the development of more effective partnerships with healthcare organizations, great progress can be made towards improving students' clinical experiences and ensuring that they are prepared to meet the current and future health needs of the population.

**A12** - Nursing & Health Sciences. 2016. Mediline. English. South Korea. Degree of Evidence: 4 The work reinforced the need to revise the nursing curriculum and use various teaching methods to promote patient safety education in a more comprehensive and effective way. In addition, he stressed the importance of developing an integrated approach to ensure balanced student competence.

A13 - J Prof Nursing. 2015. Mediline. English. England. Degree of Evidence: 4

The study gave students and the academic team a chance to reflect on the self-assessed attitude, the students' knowledge and effectiveness regarding the subject of patient safety. It also provided early indicators for areas where students' attitudes toward understanding patient safety have improved.

**A14** -Journal of Clinical Nursing. 2015. Mediline. English. Philandia and England. Degree of Evidence: 4

The study concluded that a structured and reproducible mini-course on patient safety can be associated with an improvement in several domains in the patient safety culture.

A15 - Curations. 2015. Mediline. English. South Africa. Degree of Evidence: 4

The results suggest that nurses have favorable perceptions about the quality and safety of the care provided in surgical units of private hospitals in Gauteng in South Africa. The study identified aspects that must be addressed by management, as they can impair quality and safety patient care, for example, institute registration of medication errors.

**A16** - Journal Nurse Education. 2012. Mediline. English. Canada. Degree of Evidence: 6 There is a need to link classroom and clinical learning more closely. It was concluded that future prospective investigations are necessary to increase knowledge about the approach to educational approaches, both in the classroom and in clinical settings, throughout the study program. Ultimately, it was pointed out that the responsibility for preventing individual and system errors and increasing patient safety must be shared by academics.

**A17** - Journal of Research in Nursing. 2015. Web of Science English. USA. Degree of Evidence:

Nurses are not able to meet competencies, and it is imperative to improve skills in evidence-based practices in order to guarantee the highest quality of care and the best results. Academic programs must ensure the achievement of competencies during the period of graduation, just as health systems must define them as a standard expectation to be reached by all.

**A18** – International Journal of Health Sciences. 2015. Web of Science English. Saudi Arabia. Degree of Evidence: 4

New models of competence can expand nurses' ability to act as emotionally intelligent leaders, which help to implement organizational changes in the development and promotion of safety cultures.

The assessed articles were published in the period from 2012 to 2018 and are distributed unevenly in the six databases accessed: 11 in the English language and 7 in the English, Portuguese and Spanish languages. The countries that stood

out most in the investigation on the subject were the United States, Brazil and South Korea, although Australia, Saudi Arabia, Finland, England, Canada and South Africa have also developed scientific production in this regard.

As for the characteristics of the publications, they were published in journals of the type newspaper or magazine. Researchers with undergraduate, master, doctorate and postdoctoral degrees participated in these studies, and a large part was developed in educational institutions, with the help of undergraduate students, professors and graduated professionals, working in care practice.

With regard to the methodological approaches adopted, different methods and techniques were identified, with a predominance of qualitative, followed by quantitative, under cross-sectional, analytical, exploratory, descriptive, associative, cross-sectional studies.

The instruments used for data collection and organization also varied: interviews, analysis of course curricula, use of databases to access curricula, use of software for qualitative analysis, application of questionnaires, statistical analysis programs for data analysis and statistical tests. Regarding the fulfillment of ethical criteria in research involving human beings, the studies analyzed mentioned compliance with these criteria provided for in national and international resolutions.

### Discussion

The results show that the theme of patient safety in the training of nursing professionals and, consequently, actions for safety in processes related to patient care and interpersonal relationships in the health team have been kept in the background. There was an overvaluation of contents that provide clinical skills, such as diagnosis and treatment of diseases, both in undergraduate and in multiprofessional and postgraduate residency programs. In addition, in the rare moments when these topics are discussed, the approach was only punctual and free of in-depth critical reflections.<sup>8</sup>

Thus, patient safety has not been seen as a competence to be developed during graduation, with the culture of guilt predominating in the concept of safety by nursing students, which leads to mistakes when interpreting the error as failure.<sup>20</sup>

To eliminate practices like this, the Australian Commission for Safety and Quality, Health Care<sup>21</sup> started to highlight the importance of open and blameless disclosure regarding care failures, so that professionals are not punished for reporting these situations.

A study carried out in China revealed that health students felt more comfortable when developing activities of a clinical nature than those focused on socio-cultural aspects contextually related to patient safety, such as teamwork, risk management and safety.<sup>22</sup>

Another research identified the invisibility of the theme community infection in the context of training, although it is an extremely important topic. This denotes the training still centered on the hospital-centered model, strongly directed towards the cure of the patient on the part of the health professionals, including nursing, who remain distant from the premises that involve the prevention of infections related to health care.<sup>20</sup>

It is apprehended, therefore, that it is necessary to explore this theme better, so that it affects the effective incorporation of preventive actions during care practice, as envisaged by the National Curriculum Guidelines for undergraduate courses. New changes and / or readjustments in teaching / learning should incorporate the theoretical-practical framework of patient safety, inserting it into the curricular matrices and making it the object of professional health education. It is also necessary to have the support of teachers prepared to discuss this issue, which reiterates the need to review the current pedagogical concept of doing health.<sup>8</sup>

The application of the so-called active methodologies in the teaching / learning process for patient safety, like the conversation circles, proved to be effective and beneficial for professional training. These methodologies have been incorporated into permanent health education, which is a strategy used by institutions to redesign the fundamentals and notions of health professionals and their theoretical-practical relationship focused on safety culture. Such methodological resources have allowed changes in the daily practices that favor the achievement of national and international goals for patient safety, as they show experiences related to the occurrence of professional errors that, collectively, expand learning, as well as diversify the strategies of sharing knowledge and skills to mitigate failures. The use of these methodologies also contributes to satisfactory performance in the world of work in order to reduce the occurrence of adverse events, for example.

With regard to competencies, initiatives were identified in the studies analyzed with the objective of promoting them, such as the Nursing Education and Quality Project for nurses (QSEN), in the United States.<sup>23</sup> This Project presented, for the first time, six competencies widely adopted today by nursing professionals as a way to favor curricular integration and the practice model, namely: patient-centered care, teamwork, evidence-based practice, quality improvement, security and IT.<sup>23</sup>

Globally, such competencies have become more comprehensive when incorporated into the sub-dimensions of a patient safety culture. However, in order to be applied effectively, other factors must be present: leadership, communication and learning organization.<sup>24</sup>

Also in this sense, the World Health Organization (WHO), through the preparation of the Multiprofessional Guide to the Patient Safety Curriculum<sup>25</sup>, presented dimensions to be included in the curricula of health courses with a focus on patient safety, such as communication effective, identification, prevention and management of adverse events, use of evidence and information, work safely, act ethically and continuous learning.<sup>26</sup>

Although these recommendations already exist, there is a shortage of nurses who use practical skills, such as Evidence-Based Practice (EBP), which is one of the safest required skills for care.<sup>27</sup> Gaps in nursing undergraduate curricula also persist in terms of work aimed at achieving competencies that favor patient quality and safety.<sup>28-29</sup>

Cross-sectional study conducted in 18 Australian universities analyzed the Nursing curricula and identified that the teaching of content related to patient safety varied considerably in the investigated institutions.<sup>30</sup> This highlights the importance of instituting a standardized curriculum to address this issue, so that

in the future it favors the adoption of an organizational standard with a view to security.<sup>30</sup>

To achieve curricular transformation, there is a need for a comprehensive and challenging renewal, through the incorporation of practical learning within the scope of clinical activities that involve infection control, prevention of pressure injuries and medication administration, also capable of including strategies for skills development.<sup>28-30</sup>

As for the knowledge of nursing teachers about the skills and knowledge about practices for patient safety, this proved to be relatively low. It is inferred, based on the studies analyzed, that this is due to weaknesses in obtaining theoretical knowledge on the subject, as well as a deficit in continuing education, requiring improvements.<sup>5,28-29</sup>

Although weaknesses have been identified in the development of skills for patient safety on the part of teachers and also students, studies have highlighted that some actions aimed at achieving these skills have provided positive results. A study carried out in Porto Alegre, Rio Grande do Sul, Brazil, showed that the development of educational strategies and the adoption of conducts to strengthen the safety culture in the institution contributed to better patient identification.<sup>30</sup>

Similar results were found in a research carried out in a philanthropic hospital in the United States with 5,232 patients per day. According to the study, the implementation of these strategies enabled several benefits, with emphasis on the identification of care risks, adoption of measures and forms for risk management, notification of adverse events, protocols, multiprofessional meetings and permanent education.<sup>31</sup>

## Conclusion

The studies analyzed reveal the skills developed during the training in Nursing with an emphasis on patient safety have been little addressed in the training process, configuring the need for innovative reform. Because the biomedical model, centered on the clinic, still predominates, curricular changes are necessary, both in terms of content integration so that the topic is discussed in all disciplines, as well as that there is a standardization among universities, in view of the various curricular variations found.

Among the competences presented, identification, notification, prevention and management of events, infection control, teamwork, effective communication, use of evidence, information, ethical action, leadership, continuous learning and human understanding stood out.

As more comprehensive and effective strategies for achieving competencies, the studies proposed: curriculum revision, use of varied teaching and learning methods, narrowing classroom and clinical learning and improving evidence-based practical skills.

It is noteworthy that the approach to patient safety, as a competence to be developed during nursing training, promotes improvement of clinical practice and patient care in the health system. Likewise, it mobilizes professionals, assistance and academic institutions for the participation and elaboration of public policies related to this issue and the expansion of management and leadership capacity.

In view of the above, studies are recommended that investigate and encourage the development of skills for the sake of patient safety during undergraduate nursing, with a view to improving the quality of teaching, professional training and health care.

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