

BRAZILIAN NURSING STRICTO SENSU PRODUCTION ABOUT PATIENT SAFETY IN INTENSIVE CARE UNITS

PRODUÇÃO STRICTO SENSU DA ENFERMAGEM BRASILEIRA SOBRE SEGURANÇA DO PACIENTE EM UNIDADES DE TERAPIA INTENSIVA

PRODUCCIÓN STRICTO SENSU DE LA ENFERMERÍA BRASILEÑA SOBRE LA SEGURIDAD DEL PACIENTE EN LAS UNIDADES DE CUIDADOS INTENSIVOS

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ABSTRACT

Objective: to characterize Brazilian nursing theses and dissertations that address patient safety in intensive care units. **Methods:** documentary research based on dissertations and theses, whose abstracts are Available from the database of thesis and dissertation catalog of the Brazilian Nursing Association. **Results:** the results show that 32 (80.00%) of the documents analyzed are master's dissertations and eight (20.00%) are theses. Regarding the objects of study, it was evidenced that most were related to investigations about pressure injuries (8; 20.00%), followed by infections related to health care (6; 15.00%), adverse events in the intensive care units (5; 12.50%) and nursing workload (5; 12.50%). **Conclusion:** from the study, we can note that the objects were related to themes of interest to nursing, especially pressure injuries and infections related to health care. Both are relevant themes and are directly linked to the care process by the nursing team.

Keywords: Nursing; Patient Safety; Intensive Care Units.

RESUMO

Objetivo: caracterizar as dissertações e teses da Enfermagem brasileira que abordam a segurança do paciente em unidades de terapia intensiva. **Métodos:** pesquisa documental realizada a partir de dissertações e teses, que tem os resumos disponibilizados no banco do catálogo de teses e dissertações da Associação Brasileira de Enfermagem. **Resultados:** dos documentos analisados, 32 (80,00%) são dissertações de mestrados e oito (20,00%) teses. No que diz respeito aos objetos de estudo, evidenciou-se que a maioria foi relacionada a investigações sobre lesões por pressão (8; 20,00%), seguidas por infecções relacionadas à assistência à saúde (6; 15,00%), eventos adversos em unidade de terapia intensiva (5; 12,50%) e carga de trabalho da enfermagem (5; 12,50%). **Conclusão:** a partir do estudo, percebeu-se que os objetos estiveram relacionados a temas de interesse para a enfermagem, em especial as lesões por pressão e infecções relacionadas à assistência à saúde. Ambos são temas relevantes e que estão ligados diretamente ao processo de cuidar pela equipe de enfermagem.

Palavras-chave: Enfermagem; Segurança do Paciente; Unidade de Terapia Intensiva.

RESUMEN

Objetivo: caracterizar las disertaciones y tesis de la enfermería brasileña que enfocan la seguridad del paciente en las unidades de cuidados intensivos. **Métodos:** investigación documental llevada a cabo a partir de disertaciones y tesis cuyos resúmenes estaban disponibles en el catálogo de disertaciones y tesis de la Asociación Brasileña de Enfermería. **Resultados:** de los documentos analizados, 32 (80,00%) eran disertaciones de maestrías y ocho (20,00%) tesis. En lo que se refiere a los objetos de estudio, se evidenció que la mayoría estaba relacionada con investigaciones sobre lesiones por presión (8; 20,00%), seguidas de infecciones relacionadas con atención de la salud (6; 15,00%), eventos adversos en la unidad de cuidados intensivos (5; 12,50%) y carga laboral de los enfermeros (5; 12,50%). **Conclusión:** a partir del estudio se ha podido observar que los objetos estaban vinculados a temas de interés de enfermería, en especial lesiones por presión e infecciones relacionadas con atención de la salud. Ambos son temas relevantes que están directamente vinculados al proceso de cuidados del personal de enfermería.

Palabras clave: Enfermería; Seguridad del Paciente; Unidades de Cuidados Intensivos.

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INTRODUCTION

The complexity of caring in nursing, demands professional technical expertise, humanistic and scientific knowledge for a practice based on scientific evidence. For this, it is necessary to develop a research that contribute to innovation and qualification of health care.¹

An important amount of research developed by nurses in Brazil derives from the *stricto sensu* postgraduate courses that, according to resolution n° 1 of April 2001 of the National Council of Education and the High Education Chamber, linked to the Ministry of education, contain the master and PhD programs.²

The quantitative data of the recommended programs recognized by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) indicate the total of 110 postgraduate degrees in nursing in the national territory, 51 (46%) academic masters, 37 (34%) PhD and 22 (20%) professional masters.³

In this scenario, research in nursing directed to the assistance, education or management are carried out. Regarding health care practice, some studies show the need for investigations in the intensive care unit (ICU), which is the critical area for the patients' hospitalization, requiring continuous professional specialized care, specific materials and technologies needed to diagnosis, monitoring and therapy.⁴

As a critical environment, the ICU requires direct performance of the nursing staff, with different dimensions compared to other sectors of the hospital environment. The assistance provided there is considered of high complexity, which demands special attention to safety aspects related to the patient (PS).⁵

According to the World Health Organization (WHO), the PS is the reduction of the risk of unnecessary damage to a minimum acceptable rate. It involves the use of resources to mitigate dangerous acts within the health system, as well as using best practices proven to lead to optimal results for the patient.⁶

Therefore, this study is justified by the desire for knowledge production in nursing post graduate level about patient safety in intensive care units. It was guided by the following research questions: what are the characteristics of dissertations and theses Available from the catalog of theses and dissertations (CEPEn) of the Brazilian Nursing Association (ABEN) that address patient safety in the intensive care unit? How is the patient safety in the intensive care unit discussed in nursing theses and dissertations? In what patient safety priority protocol from the Ministry of health fits the object of study of nursing research?

Thus, the objective was to characterize the dissertations and theses of Brazilian Nursing that address patient safety in intensive care units.

METHOD

It is a documentary research based on a query of materials included as documents and that can be used for organizing information.⁷

The documents reviewed were reports available such as dissertations and theses of masters and PhD courses, respectively, which have abstracts available on CEPEn database from XIX (2001) to XXXIV (2014) volumes. It should be noted that on the ABEN website only catalogs from the above period were available, therefore, all of them were analyzed.

The CEPEn theses and dissertations database aims to promote the dissemination of academic knowledge of nursing in a systematic and continuous way and was created in 1971, initially printed and from volume 33, published in 2015, available for free access only in electronic media on the ABEN website.

For structuring the research, we elaborate a protocol which described: the subject, the objective, the guiding questions, search strategies, study selection, data collection strategy, strategy for critical appraisal of studies and data synthesis.

The dissertations and theses included belonged to ABEN catalogue, produced by nurses, that address patient safety in intensive care units. The dissertations and theses excluded were the ones with abstracts incomplete, or did not responded to all the collection indicators, or those whose full text is not available for download and also studies elaborated exclusively through literature reviews.

We used an instrument composed of a questionnaire, with the following indicators for the initial data collection in the abstracts available: academic level of the course (masters or PhD); higher education institution (HEI); year of defense; development of the study site (region and State); object of study; the study methodological type of design, and technical approach; type of ICU researched (adult, neonatal, pediatric, mixed); subject of the research. Data collection in the abstracts was conducted during September and October 2016 and the analysis of the documents from November 2016 to January 2017.

After the analysis of the abstracts from the catalog, the complete reports were accessed from specific databases of each University responsible for the program or the database of theses and dissertations of CAPES. A systematic analysis of the documents was made to complete the other indicators contained in the questionnaire, regarding approaches about: the national patient safety program (NPSP); (b) the patient safety nucleus (PSN); c) patient safety plan (PSP); d) safety patient protocol.

Figure 1 represents the total of examined abstracts of theses and dissertations at each stage of the research.

The data was tabulated in Microsoft Excel® software version 2016 and categorized as collecting questionnaire indicators. After this step, we proceeded to the descriptive statistical

analysis, which allowed the presentation of the results in absolute and relative values.

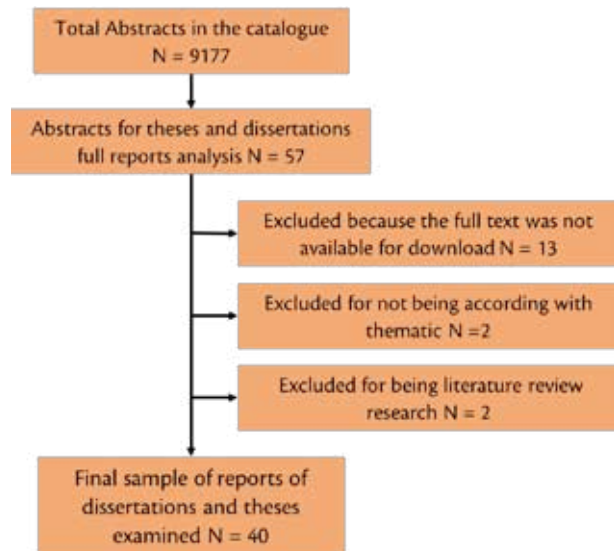


Figure 1 - Total of examined abstracts

RESULTS

32 (80.00%) documents analyzed, were dissertations of master’s degree and only eight (20.00%) were theses. Only one dissertation (3.13%) corresponded to professional master. Table 1 shows the total number of selected studies according

to the volume and year of publication. It was noticed that the publications of dissertations in the year 2013 (8; 25.00%) and theses in the years 2011 and 2012 (2; 25% in both) predominated. In relation to the total, the largest number of included documents was published in the year 2013 (9; 22.50%).

We identified that most research was held in southeast (18; 45%) and south regions (11; 27.50%) programs. Fewer research appeared in the northeast (7; 17.50%); and Midwest (4; 10.00%). We did not find any document from the northern region programs. Figure 2 shows the distribution of the studies according to higher education institutions (HEIs) in which they were performed. The highlights were the University of São Paulo (USP) (13 32.50%); and Federal University of Santa Catarina (7; 17.50).

Regarding the dissertations and theses objects of study, most of them were related to investigations of pressure injuries (PI) (8; 20.00%), followed by healthcare-related infections (CRI) (6; 15.00%), adverse events in ICU (5; 12.50 %) and nursing workload (5; 12.50%). We carried out studies with objects related to the theme of security in medicine administration (3; 7.50%), security culture (3; 7.50%), skin lesions in newborns (2; 5.00%), patients physical restriction (1; 2.50%), response time to alarms of multiparameter monitors (1; 2.50%), computerized nursing process and the PS (1; 2.50%), corneal lesions (1; 2.50%), patient identification (1; 2.50%), staff dimensioning (1, 2.50%), communication during shift change (1; 2.50%) and attitudes of nursing professionals for the PS (1; 2.50%).

Table 1 - Dissertations and theses included in the study according to the volume and year of publication, 2017

Volume	Year	Dissertations		Theses		Total	
		n	%	n	%	n	%
XIX	2001	0	0.00	0	0.00	0	0.00
XX	1 st semester 2002	0	0.00	0	0.00	0	0.00
XXI	2 nd semester 2002	0	0.00	0	0.00	0	0.00
XXII	2003	1	3.13	0	0.00	1	2.50
XXIII	2004	0	0.00	0	0.00	0	0.00
XXIV	2005	2	6.25	0	0.00	2	5.00
XXV	2006	2	6.25	0	0.00	2	5.00
XXVI	2007	1	3.13	0	0.00	1	2.50
XXVII	2008	1	3.13	1	12.50	2	5.00
XXVIII	2009	2	6.25	1	12.50	3	7.50
XXIX	2010	2	6.25	0	0.00	2	5.00
XXX	2011	3	9.36	2	25.00	5	12.50
XXXI	2012	6	18.75	2	25.00	8	20.00
XXXII	2013	8	25.00	1	12.50	9	22.50
XXXIV	2014	4	12.50	1	12.50	5	12.50
Total		32	100	8	100	40	100

Source: Research data.

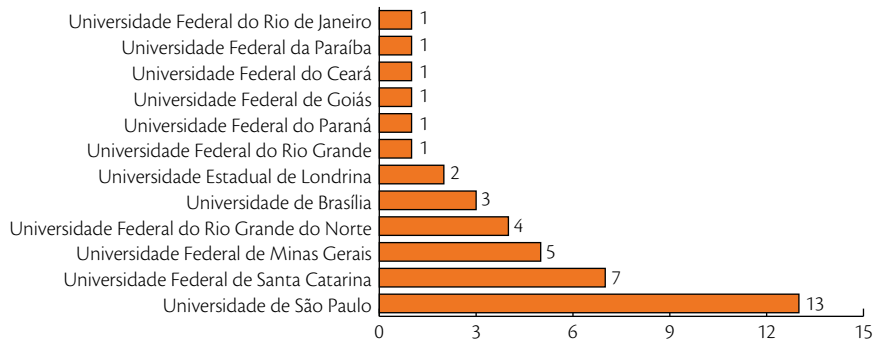


Figure 2 - Distribution of the studies according to higher education institutions (HEIs)

As for the methodological design, the predominant were descriptive studies (37; 92.50%), with a quantitative approach (33; 82.50%). We found prospective research (1; 2.50%), observational with cohort design (1; 2.50%) and convergent health-care (1; 2.50%).

About the approach, we identified in the background: mixed (6; 15.00%), qualitative (1; 2.50%). For data collection, the highest percentage of them used structured questionnaire (22; 55.00%) and others have mentioned the patient records analysis (9; 22.50%) without specifying the method of collection. Some held structured observation (6; 15.00%), semi-structured interview (1; 2.50%), focus group (1; 2.50%) and semi experimental study protocol (1; 2.50%).

Figure 3 illustrates the types of ICU in which research was held, which were classified in: neonatal, Pediatric, adult and mixed. It also shows the number of studies that were conducted simultaneously in Pediatric and adult NICU, as well as those who did not report the type of ICU.

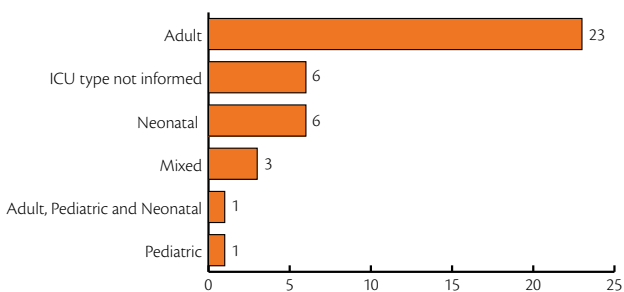


Figure 3 - Types of ICU in which research was held.

Table 2 shows the categorization of the research subjects: a) nurses; b) nurses and systems programmers; c) patients; d) patients and nursing staff; and) patients and health professionals (when besides the nursing staff, the study included other health professionals); f) nursing professionals; g) health professionals (studies including other professionals besides nursing).

Table 2 - The research subjects of dissertations and theses, 2017

Research subjects	n	%
Nurses	1	2.50
Nurses and systems programmers	1	2.50
Patients	22	55.00
Patients and nursing staff	1	2.50
Patients and health professionals	2	5.00
Nursing professionals	7	17.50
Health professionals	6	15.00
Total	40	100

Source: Research data.

In the analysis of the complete dissertations and theses reports, specific indicators related to PS were answered. About the basic protocols of PS, 22 (55.00%) documents did not mention any. In the documents that cited them (18; 45.00%), we identified that some mentioned only one protocol specifically: safety in medicines preparation and administration (6; 33.33%), pressure lesions prevention (6; 33.33%), hands hygiene (1; 5.56%), patient identification (1; 5.56%). Other studies cited more than one protocol, namely: pressure and falls lesions prevention (2; 11.10%), hands hygiene and safe surgery (1; 5.56%) pressure lesions prevention, patient identification, security in medicines preparation and administration and falls (1; 5.56%).

The National Program of PS (NPPS) appeared in five (12.50%) studies, the of PS Nucleus (PSN) was cited in two (5.00%). Only one (2.50%) of the studies addressed patient safety plan (PSP) as an important strategy in the hospital environment.

DISCUSSION

The sample of documents examined and included in this research represents only 0.44% of all researches performed in Brazilian nursing postgraduate programs, which can be considered a very low number, once intensive therapy requires differentiated attention in front of its specificity.

Regarding the production, the existence of only one professional master's dissertation can be justified by the lower

number of this type of programs in relation to academic courses.³ It should be noted that there are still few studies that assess the impact of professional masters-level productions in Brazilian nursing and this type of program is still in a phase of consolidation to contribute to the profession development.⁸

The discussions about the specific topic of PS started and were more focused in the last two decades, especially since the publication of the report *To err is human: building a safer health care system*, which revealed a high number of patients' injuries and deaths resulting from practices in health scenarios.^{8,9}

In the Brazilian scenario, from 2013 the issue has had greater attention, with the publication of Ordinance No. 529, April 1, 2013, which established the PSP with the purpose of contributing to the qualification in health care in all health institutions countrywide.¹⁰ This fact may be the reason why in the year 2013 the largest number of dissertations for the PS in the ICU were published.

In relation to the objects of study, the study of pressure lesions and CRIs was more expressive. Some research carried out by nurses highlight that there is good scientific production in Brazil on the theme involving the PLs and point out that there is a close relationship between its prevention and nursing staff. Still, this fact is considered a challenge in the hospital setting.^{11,12}

Regarding CRIs, considered a public health problem, it is known that their impact on quality and PS is expressive. They may increase mortality and morbidity indicators of health services, as well as the patients' length of stay, the costs of hospitalization, which exposes them to a greater number of procedures and interventions. The role of the nurses is highlighted in the control of these diseases, because they operate directly with the patient, manage teams and can take specific functions in hospital infection control. This problem justifies the considerable number of studies with this approach.¹³

Other topics that are study objects of the document have also important relation with the PS. Among them, the most discussed were the nursing staff workload and staff dimensioning, that can affect directly the PS in the ICU and in other sectors, when the real numbers are not according with the demands of work required.¹⁴

Another highlight is the PS culture, also object of some publications, which can be defined as the set of values, attitudes, skills and behaviors that determine the commitment to health and safety management, replacing the guilt and punishment by the opportunity to learn from the failures and improve health care.¹⁰

CONCLUSION

The present study showed a consolidation of masters and PhD level production in Brazil about PS in the ICU. Therefore,

it is considered that such documents make up a data set with varied themes involving safety care, where those addressing PL and the CRIs are prevalent.

As limitations, we can mention the absence and lack of standardization of some valuable information in abstracts and the full text, which made it difficult to fill some indicators, as well as the unavailability of some theses and dissertations in virtual libraries of universities, which generated a considerable number of exclusions. We can also highlight that the study was conducted only with documents produced from Brazilian research reports, which makes impossible the comparison with other countries' reality.

It should be noted that it is important to develop similar research, so these compiled data become more accessible to the population interested in the subject, as well as the need for a structured analysis about the research carried out by Brazilian nursing staff, who can point out the gaps to be investigated.

Finally, we recommend the development of studies that characterize the subsequent years of Brazilian publications, as well as research that explore stricto sensu productions from other countries to give more expressiveness to the subject.

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