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# Latu sensu nursing specialization in intensive therapy in Brazil

Latu sensu enfermagem especialização em terapia intensiva no Brasil

Especialização latu sensu de enfermagem em terapia intensiva no Brasil

## ABSTRACT

**Objective:** to characterize Latu Sensu nursing specializations in intensive care in Brazil. **Method:** documentary, descriptive research carried out with 501 curricular matrices of specialization courses in intensive care nursing. **Results:** there was a predominance of 494 (98.60%) courses offered by private institutions, 486 (97.0%) in person, 271 (54.20%) located in the capitals, 188 (37.20%) in Southeast and 137 (27.34%) in the Northeast. The courses with emphasis on the General / Adult Intensive Care area stand out, representing 291 (58.08%). In 58 (11.58%) classes took place monthly and the topics related to Course Completion Work (TCC) and Management / management were the most present, found in 214 (42.71%) and 203 (40.52%), respectively. **Conclusion:** the nursing specializations in intensive care are offered, mostly, by the private network of the southeast and northeast regions, in person, with monthly classes and the contents about the course completion and management are the most found.

**DESCRIPTORS:** Intensive Care Units; Baccalaureate Nursing Education; Nursing Education Graduate; Critical Care Nursing.

## RESUMEN

**Objetivo:** caracterizar las especializaciones de enfermería Latu Sensu en cuidados intensivos en Brasil. **Método:** investigación documental descriptiva realizada con 501 matrices curriculares de cursos de especialización en enfermería de cuidados intensivos. **Resultados:** hubo predominio de 494 (98,60%) cursos impartidos por instituciones privadas, 486 (97,0%) presenciales, 271 (54,20%) ubicadas en las capitales, 188 (37,20%) en Sureste y 137 (27,34%) en el noreste. Destacan los cursos con énfasis en el área de Cuidados Intensivos Generales / Adultos, que representan 291 (58,08%). En 58 (11,58%) las clases se impartieron mensualmente y los temas relacionados con Trabajo de Finalización de Curso (CBT) y Gestión / gestión fueron los más presentes, encontrándose en 214 (42,71%) y 203 (40,52%), respectivamente. **Conclusión:** las especialidades de enfermería en cuidados intensivos son ofrecidas, en su mayoría, por la red privada de las regiones sureste y noreste, presencialmente, con clases mensuales y los contenidos sobre el trabajo de realización del curso y gestión son los más encontrados.

**DESCRIPTORES:** Unidades de Cuidados Intensivos; Bachillerato en Enfermería; Educación de Postgrado en Enfermería; Enfermería de Cuidados Críticos.

## RESUMO

**Objetivo:** caracterizar as especializações Latu Sensu de enfermagem em terapia intensiva no Brasil. **Método:** pesquisa documental, descritiva ocorrida com 501 matrizes curriculares de cursos de especialização de enfermagem em Terapia Intensiva. **Resultados:** observou-se predomínio de 494 (98,60%) cursos ofertados por instituições privadas, 486 (97,0%) na modalidade presencial, 271 (54,20%) localizados nas capitais, 188 (37,20%) no Sudeste e 137 (27,34%) no Nordeste. Destacam-se os cursos com ênfase a área de Terapia Intensiva Geral/Adulto, representando 291 (58,08%). Em 58 (11,58%) as aulas ocorriam mensalmente e os temas relacionados ao Trabalho de Conclusão de Curso e à Gestão/gerenciamento foram os mais presentes, encontrados em 214 (42,71%) e 203 (40,52%), respectivamente. **Conclusão:** as especializações de enfermagem em terapia intensiva são ofertadas, em maioria, pela rede privada das regiões sudeste e nordeste, de forma presencial, com aulas mensais e os conteúdos acerca do trabalho de conclusão de curso e do gerenciamento são os mais encontrados.

**DESCRIPTORIOS:** Unidades de Terapia Intensiva; Bacharelado em Enfermagem; Educação de Pós-Graduação em Enfermagem; Enfermagem de Cuidados Críticos.

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## **INTRODUCTION**

The Intensive Care Unit (ICU) is designed to provide continuous assistance to critically ill patients, with the use of technologies/equipment necessary for diagnosis and treatment.<sup>1</sup> The high complexity of care in this context requires specific skills and competences from professionals in order to qualified and resolute action.<sup>2</sup>

In accordance with Resolution No. 07/2010 of the Ministry of Health, the nurse coordinator of the nursing team can assume technical responsibility or coordination in a maximum of two ICUs; should be entitled, specialist in intensive care or other specialty for critically ill patients. In addition, the unit's minimum team must contain at least one assistant nurse for every eight beds or fraction, per shift.<sup>3-4</sup>

The complexity of intensive care requires specific and qualified assistance from professionals, because the critical condition of the patients and the use of technologies demand

knowledge and skills to subsidize the assistance provided.<sup>2,5</sup> When considering that the professional is influenced by their education, the relevance of specialization courses that instrumentalize nursing to act in intensive care is pointed out.

Inserted in the lato sensu post-graduation modality, the specialization courses aim to promote professional qualification based on the deepening of knowledge in a specific area, consequently expanding opportunities in the job market.<sup>6</sup> It is observed, therefore, that the expansion of the offer of postgraduate courses is a reality in every country, however, there is a gap related to publications that deal with this context.<sup>6-7</sup>

The characterization of nursing specializations in the ICU will enable the identification of gaps, the understanding of how the Brazilian scenario is and the distribution of such courses in the various regions of the country. This characterization can contribute to decision making about the structuring of graduate nursing

courses and add to the state of the art on the subject.

Thus, the study aimed to characterize the Lato Sensu specializations of nursing in intensive care in Brazil.

## **METHOD**

This research consists of a descriptive, documentary and quantitative study. The collection occurred through access to the website of the Ministry of Education-MEC ([emec.me.gov.br](http://emec.me.gov.br)) to identify the educational institutions that offered the specializations. Subsequently, the website of each institution was accessed, to search for information about the Lato Sensu postgraduate course in intensive care nursing.

The curricular matrices of the specialization courses in ICU made up the study population. It was adopted as an inclusion criterion that the course is in active status before the MEC and as an exclusion criterion the unavailability of the institutions' website to access the information of the courses.

The collection instrument used was built specifically for this research and included the variables available on the MEC website and in the curricular matrices of the cour-

ses: name and geographic location of the educational institution; category (private or public); emphasized area of the course; course offer modality (face-to-face, semi-face-to-face or distance learning); frequency of classes; total course load and modules/subjects offered.

The data were collected by three researchers trained to collect and tabulate the data, in the period from September to October 2018, and subsequently analyzed in Software R, version 3.5.1. using descriptive analysis. Because this research does not involve human beings and because it uses public domain data, there was no appreciation by the Research Ethics Committee.

## RESULTS

The number of 501 specialization courses in nursing related to the Intensive Care Unit, registered in the e-MEC, was identified, and all had websites available for data collection (without exclusion). Of these courses, seven (1,4%) were offered by public institutions and 494 (98,6%) by private institutions.

With regard to geographic location, there was a slight predominance of 272 (54,2%) courses offered in the capitals and the regions that most had such courses were the Southeast and Northeast, with 188 (37,52%) and 137 (27,34%), respectively. The details of the geographical location of the courses are shown in table 1.

Regarding the modality in which the courses were offered, 486 (97,0%) were face-to-face courses, 14 (2,8%) were Distance Education (EAD) and one (0,2%) semi-face-to-face. As for the frequency of classes, in 366 (73,05%) courses the information was not available, in 58 (11,58%) of the courses the classes took place monthly, in 55 (10,98%) fortnightly, in 15 (2,99%) weekly, in seven (1,40%) daily.

Regarding the workload, it was observed that the courses located both inland and in the capitals had approximate averages, with the national average being 463,2 hours. When observing the hourly loads by region, the highest and lowest average was observed in the northern region, so that the courses located in the interior cities of that region had an average of 510 hours and

Table 1 - Geographic location of the specialization courses in Intensive Care Nursing in Brazil, by region. Pesqueira, PE, Brazil, 2020

REGION	LOCATED INLAND N (%)	LOCATED IN CAPITALS N (%)	TOTAL N (%)
Southeast	117 (23,35%)	71(14,17%)	188(37,52%)
North east	55 (10,98%)	82 (16,37%)	137(27,34%)
South	37(7,39%)	35(6,99%)	72(14,37%)
Midwest	14(2,79%)	42(8,38%)	56(11,18%)
North	6(1,2%)	42(8,38%)	48(9,58%)
National	229(45,71%)	272(54,29%)	501(100%)

Source: e-MEC, 2018.

Table 2 - Average hours of specialization courses in Nursing in Intensive Care, in Brazil, according to location in the interior or capital, by region. Pesqueira, PE, Brazil, 2020

REGION	COURSES IN THE INTERIOR REGION AVERAGE HOURS	COURSES IN THE CAPITAL AVERAGE HOURS
Southeast	456,0	455,4
North east	485,9	462,0
South	464,2	454,3
Midwest	503,5	476,5
North	510,0	436,6
National	468,9	457,5

Source: e-MEC, 2018.

Table 3 - Distribution of specialization courses in Nursing related to intensive care in Brazil, according to the area emphasized. Pesqueira, PE, Brazil, 2020

EMPHASIZED AREA	N(%)
General/adult ICU	291(58,08%)
Pediatric and/or neonatal ICU	82 (16,36%)
Urgency, emergency and ICU	74 (14,77%)
ICU with an emphasis on cardiology	16 (3,19%)
Adult, pediatric and neonatal ICU	16 (3,19%)
Obstetrics and neonatal ICU	10 (1,99%)
ICU and operating room	3 (0,59%)
Obstetrics and ICU	3 (0,59%)
ICU with an emphasis on Management	2 (0,39%)
ICU, urgency and emergency and operating room	2 (0,39%)
ICU with an emphasis on neurology	1 (0,19%)
Neonatal and pediatric ICU with emphasis on management	1 (0,19%)

Source: e-MEC, 2018.

those located in the capitals 436,6 hours, as detailed in table two.

With regard to the area emphasized in the course, there was a predominance of courses with an emphasis on general ICU/adult 291 (58,08%), with the least offered being those that emphasize neurological care and management of highly complex pediatric services, both with 1 (0,19%), as shown in table 3.

Of the 501 courses analyzed, 224 (44,71%) made the curriculum available online, in which the distribution of content addressed from reading the titles of the disciplines/modules was observed. The subjects/contents related to the Course Conclusion Work (TCC - Trabalho de Conclusão de Curso) and the Management/management were the most present, as detailed in table 4.

## DISCUSSION

It was observed that the regions that had

the most intensive nursing specialization courses in Intensive Care were Southeast and Northeast. Such fact may be related to the unequal distribution of ICU beds, by region of Brazil, since the Southeast, with 51.9% of the beds, and the Northeast with 20,7%, consist of the regions that have more intensive therapy beds. Thus, it is possible that the larger number of beds in such regions culminates in the demand for nurses from these regions for specialization courses, which consists of a demand that makes it possible to install this specialization in these regions. However, in view of the existence of ICUs throughout the national territory, it is pointed out that greater investment is relevant for the other regions to increase the offer of specializations for nursing in intensive care.

Still on the location of the institutions, there was a slight predominance of courses offered in the capitals. This finding can be justified since the large centers and metropolitan regions concentrate the highly complex health establishments and, therefore, it is expected that

they have a large part of the intensive care beds. Thus, it is understood that the offer of specializations in ICU occurs in such places, in view of the feasibility for internships/practices and technical visits, as well as the opportunity for jobs in the area.

Private institutions stood out in offering ICU specializations aimed at intensive care nursing, which converges with studies about the national profile of nursing, whose results showed that their training occurs, predominantly, in private institutions.<sup>9-10</sup> In this context, the relevance of research on nursing education is not limited to public institutions, but includes the private network in their study scenario, given the proportion of nurses who are graduated and post-graduated by such institutions.

With regard to the modality of the courses, the on-site ones stood out. This fact is relevant and pertinent, given the political and pedagogical position prevalent in the national nursing scenario that does not agree with distance education. Nursing training must be face-to-face to address quality through the possibility of insertion in practical scenarios that are not substitutable for virtual technological resources.<sup>11</sup>

Regarding the periodicity of classes, most of the specializations in the ICU presented classes given monthly. This fact can occur since the high hours worked and the scales on duty predispose professionals to have low availability to take the specialization, so that educational institutions organize the schedules with monthly meetings, to increase a chance of joining the course.

With regard to the emphasized areas, it stands out the predominance of specializations in intensive care aimed at the general adult public, a fact consistent with the distribution of ICU beds in the country, which points out that 66,4% of the beds in the national territory are destined to the adult population.<sup>12</sup> It is justified, therefore, the greater demand for professionals trained in the provision of intensive care to the adult population, when compared to other life cycles.

Among the disciplines and contents that integrated the curricular matrix of specializations in ICU (evaluated based on their title), the ones referring to the Course Conclusion Work stood out. This fact is relevant since

Table 4 –Distribution of disciplines/contents in specialization courses in Nursing in Intensive Care, in Brazil. Pesqueira, PE, Brazil, 2020

DISCIPLINE/CONTENT	N(%)
Course Conclusion Work	214(42,71%)
Management	203(40,52%)
Infectious Diseases/Biosafety	138(27,54%)
Systematization of Nursing Care	161(32,14%)
Ethics and Bioethics	138 (28,1%)
Cardiology	136(27,15%)
Intensive Pharmacology	108(21,56%)
Assistance to the victim of a medical condition	76 (15,17%)
Assistance to Trauma Victims	72 (14,37%)
Nephrology	72 (14,37%)
Mechanical ventilation	69 (13,77%)
Cardiac Monitoring	69 (13,77%)
Nutritional aspects in intensive care	60 (11,98%)
Laboratory Exams	60 (11,98%)
Intensive Care for Burn Victims	21 (4,19%)
Organ Transplantation / Capture	21 (4,19%)
Postoperative period in intensive care	19 (3,79%)
Sepsis	16 (3,19%)
Oncology	14 (2,79%)

Source: websites of educational institutions, 2018.

the insertion of content related to research in graduate courses corroborates the adoption of Evidence-Based Practice (PBE) in professional nursing practice.<sup>13</sup> It should be noted that, as the course subjects' menus were not read, some content may have higher frequencies than those referenced in this study. This can occur because such content is approached in an integrated way with others, as well as because they develop across disciplines.

The limitation of the study consisted of the analysis having taken place about Brazilian courses, so that the nursing specialization in intensive care may have a different profile in other countries. Another limiting factor is related to the research having con-

templated the curricular matrices available for virtual access, thus, the matrices of the specializations that were not available may differ from the results presented.

## CONCLUSION

The study pointed out that the majority of Brazilian postgraduate courses are offered by the private network, distributed in a balanced way between capitals and cities in the interior, as a result of the process of expansion and interiorization of education, as well as of the growing demand for specialization and professional qualification. Most courses are in the face-to-face modality, following the national

pedagogical political context. The predominance of courses offered in the Northeast and Southeast regions is highlighted, where there is a gap related to the reduced percentage of courses offered in the South, North and Midwest regions. With regard to the contents, the need to investigate how themes such as mechanical ventilation, cardiac monitoring and sepsis are addressed in the courses is pointed out, since these were not explicitly recurrent in the analyzed curricula, even though they are understood that these are of great importance in the daily care process in intensive care settings, and their non-appropriation causes losses in the quality of care provided by trained professionals. ■

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