

## **Current Overview of Undergraduate Nursing Courses in the Northeast**

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**Abstract**

*Introduction: Nursing education has been undergoing transformations in due to the need to adapt to the market demands. Thus, within the academic context, it is necessary to observe the quality of training linked to the demands of the contemporary world. To assess this quality, the National Institute of Studies and Research uses instruments to outline the quality panorama of the courses through the evaluation of students, through the result of the National Student Performance Exam, in addition to using the educational indexes: administrative category, institutional nature, number of vacancies offered and course concept. Objective: To outline the current panorama of undergraduate nursing courses in the Northeast region, establishing a relation with the quality of teaching based on the evaluation of educational indices. Methodology: Document research, of a descriptive character and qualitative approach, using secondary data from the National Institute of Educational Studies and Research Anísio Teixeira of the Ministry of Education, available in April 2020. The sample consists of 336 institutions that offer 406 undergraduate courses in nursing in the Northeast. The data were compiled in an Excel® spreadsheet and statistically analyzed using the SPSS 12.0 program. Results: It was observed that the face-to-face modality stands out with 89% coverage in the region, but distance learning includes the largest number of places. Public education institutions stand out with the higher concepts of the course. The NSPE evaluation concept 2 was the one that most appeared in the evaluated courses. The state of Bahia has the largest amount of courses, with 24.5%, and Sergipe was the lowest index (5.4%), but it has an average of vacancies higher than the average in the region. Final considerations: The analysis of this study shows a deficit in the quality of undergraduate nursing courses in the Northeast. Further studies in the area of Nursing Education are needed to analyze the monitoring of its quality.*

**Keywords:** Nursing education; Higher education institution; Educational assessment.

## 1. INTRODUCTION

The health scenario has been constantly changing, a fact that has led nursing education to transformations, in order to adapt to the demands imposed by the world of work, preparing future professionals with an innovative profile, with relational skills and technical, ethical, human skills and above all, ready to meet the needs of society (LUIZ et al., 2020). In this sense, there are three important aspects to this context: quality in training aligned with the demands of the contemporary world, ability to work in a team and lead the student to critical, creative and ethical thinking (CASSIANI et al., 2017).

The internationalization movement of higher education in nursing emerges as a compulsory requirement for globalization and the need to disseminate knowledge that adheres to social, economic and cultural political development. Thus, the changes that occurred in nursing education in Brazil are linked to the expansion of the course that since the nineties has the purpose of providing autonomy to private Higher Education Institutions (HEI's), and with that there was greater flexibility in the regulatory aspects (TYRRELL, 2019).

In view of this process, the ministry of education realized the need to standardize teaching by creating the National Curriculum Guidelines (NCGs), in which they were published for health degrees, serving as a parameter for the construction of IES Pedagogical Projects (NETO, 2019). The NCGs have become a legal, political and ethical framework in which the training of nurses is advocated, stimulating changes in undergraduate courses in order to improve pedagogical projects and curricula (SILVA et al., 2011). The nurse qualified to practice nursing must be guided by ethical principles, and be able to intervene in the health problems prevalent in the national epidemiological profile (VIEIRA et al., 2020).

The last decades are marked by the construction of new health organizations, these begin to be governed by health promotion, disease prevention and treatment of health morbidities, the effect of the consolidation of the Unified Health System (UHS) in Brazil. Thus, teaching also began to be questioned, since, until then, the training of health professionals was geared towards the medical model (BECERRIL, 2018). With the arrival of UHS in 1988, there was a break in this model, raising questions about the training of health professionals asking whether they were able to work in the current health system in the country (DUARTE; VASCONCELOS; SILVA, 2016).

To assess aspects related to the quality of nursing education, the National Institute of Studies and Research (NIRS) uses instruments to outline the panorama of the quality of courses. Thus, through the National Higher Education Assessment System (NHEAS), it is possible to evaluate such quality indicators: the assessment of students, through the result of the National Student Performance Exam (NSPE), in addition to using the educational indexes: administrative category, institutional nature, number of vacancies offered and course concept. The faculty, physical structure and pedagogical project of the course (PPC) are also evaluated (LIMA, 2016).

At this juncture, this article aims to answer the following research question: From the quality indicators of Nursing Education, what is the evaluation of Nursing courses in the Northeast? In order to answer the proposed question, this research aims to outline the current panorama of undergraduate nursing courses in

the Northeast region, establishing a relationship with the quality of the costs from the assessment of educational indexes.

The discussion of this topic becomes relevant, since, based on the assumption of the unbridled expansion of nursing education, it is important to assess the quality of teaching that is being offered in the HEI's. Thus, when a quality education is provided, it enables the future nurse to develop competencies, skills and attitudes essential for his performance in the labor market.

## **2. METHODOLOGY**

### ***2.1 Study design***

It is a documentary research, of a descriptive character and quantitative approach. The study used secondary data from the universe of undergraduate nursing courses in the Northeast, accessed in the period from April 2020.

### ***2.2 Data collection procedure and participant***

The information collected and analyzed was made available by the National Institute of Educational Studies and Research Anísio Teixeira (NISR) of the Ministry of Education (MEC) registered in the e-MEC database. This is an online tool that manages information about HEI's.

The study sample consists of 336 institutions that offer 406 undergraduate nursing courses in the Northeast. Variables were defined as: type of accreditation, administrative category of the course, concept of the course, NSPE evaluation score and number of places for undergraduate courses. The data obtained were tabulated and submitted to descriptive analysis using the Excel® 2019 software (16.0).

As inclusion criteria, the institutions recognized by the MEC and which are included in the e-MEC database were analyzed. Exclusion criteria were the HEI's that present courses in extinction, that do not have an enrollment number, and the NSPE concept and that offer mid-level nursing courses.

### ***2.3 Data analysis***

The data were compiled in an Excel® spreadsheet and statistically analyzed using the SPSS 12.0 program. Descriptive analysis was performed using absolute and relative frequencies. To compare the categorical variables, the chi-square test was used and for the numerical ones, the Mann-Whitney U test or the Kruskal-Wallis test followed by the Dunn test. The normality of the data was tested using the Shapiro-Wilk test. Associations were considered significant when  $p < 0.05$ .

### ***2.4 Ethical procedures***

The present study does not require approval from the ethics committee in research with human beings for using secondary data that appear on public websites.

## **3. RESULTS**

The e-Mec points to the existence of 336 institutions that offer 406 undergraduate nursing courses in the Northeast region. 89% of registered courses are offered in person, with an average of 150.04 places.

Courses registered in distance learning (DL) represent 11% with an average of 263.98 places (Figure 1).

Figure 1A

Figure 2A

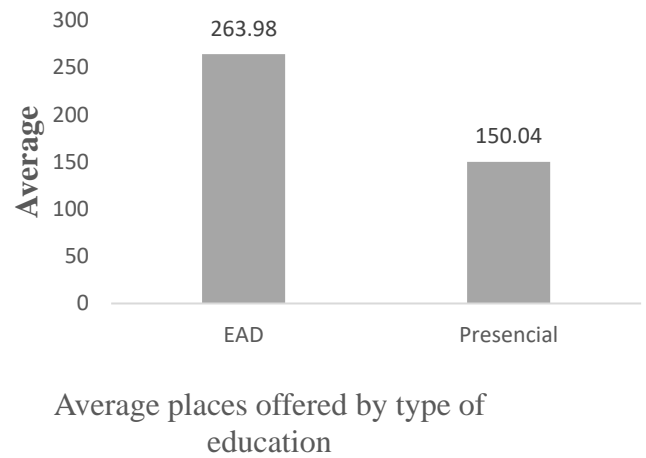
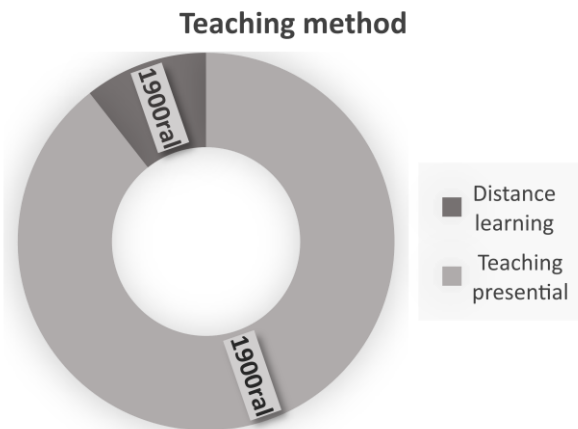


Figure 1 - Teaching modality of undergraduate nursing courses in the Northeastern states (A). Average vacancies offered x teaching modality in the Northeastern states (B).

The courses offered by public HEI’s stood out with the highest concepts, with 48.1% presenting concept 4 and 26.9% concept 5. Already private HEI’s courses mostly obtained concept 2 (50.4%), followed by of concept 3 with 30.9%. Evaluating the minimum concept (1), it is clear that no course from public institutions presented this note. On the other hand, there are only 1.4% of courses from private institutions with a maximum grade ( $X^2 = 86.96, p < 0.001$ ) (Figure 2A).

As for the concept of NPSE acquired by nursing courses in the Northeast, it is clear that most presented concept 2 (37.5%), 26% concept 3 and 21% concept 4. The lowest rates highlighted were the maximum concept 5 (9.5%) and the minimum concept 1 (6%) (Figure 2B).

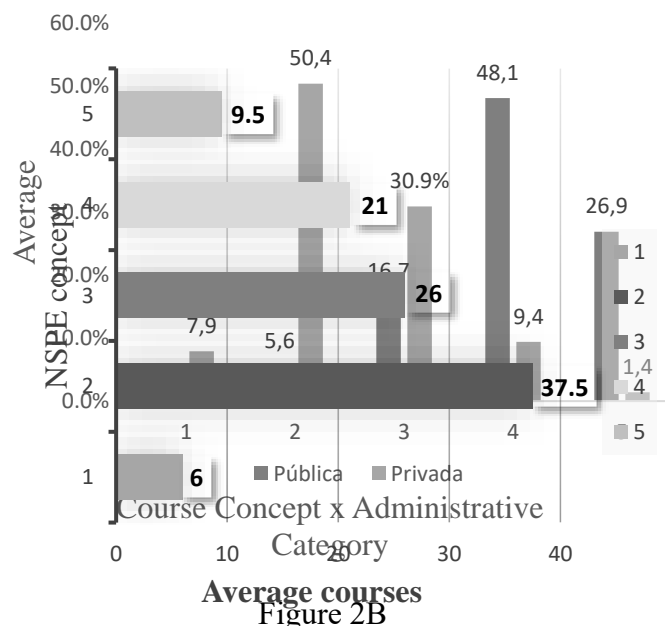


Figure 2A

Figure 2 - List of the course concept by administrative category of Higher Education Institutions in nursing in the Northeast region (A). NSPE concept of undergraduate nursing courses in the Northeast region (B).

The number of undergraduate nursing courses in Bahia is 99 (24.5%), this being the state with the largest number of courses in the region, followed by Pernambuco with 64 (15.8%), Ceará with 55 (13, 6%). The state with the lowest number of courses is Sergipe, 22 (5.4%) (Table 1).

Table 1 - Rate of courses and average vacancies offered by Higher Education Institutions in nursing in the states of the Northeast.

| REGION | n (%)     | n (%)         | Average vacancies | Standard deviation |
|--------|-----------|---------------|-------------------|--------------------|
| BA     | 47 (11.6) | 5,237 (8.0)   | 111.4             | 85.2               |
| PI     | 33 (8.2)  | 3,755 (5.7)   | 113.8             | 73.9               |
| CE     | 55 (13.6) | 7,883 (12.0)  | 143.3             | 77.6               |
| AL     | 26 (6.4)  | 4,047 (6.2)   | 155.7             | 121.0              |
| SE     | 22 (5.4)  | 3,737 (5.7)   | 169.9             | 146.8              |
| PB     | 30 (7.4)  | 5,151 (7.9)   | 171.7             | 159.5              |
| RN     | 28 (6.9)  | 4,836 (7.4)   | 172.7             | 178.4              |
| BA     | 99 (24.5) | 17,878 (27.3) | 180.6             | 278.1              |
| PE     | 64 (15.8) | 12,991 (19.8) | 203.0             | 212.5              |
| TOTAL  | 404 (100) | 65,515 (100)  | 162.2             | 186.6              |

The average number of vacancies in the states was carried out as follows: the number of vacancies in each state was divided by the number of courses in the respective state. Thus, the average number of vacancies offered by undergraduate nursing courses shows that of the 9 states in the Northeast, the state of Pernambuco stands out with the highest average (203.0, SD 212.5), being it the fifth largest state the region in territorial dimension. The Bahian territory had an average of 180.6 (SD 278.1) and is the second state with the highest average.

Sergipe is the smallest state in the region in terms of territorial extension and has the lowest number of institutions and courses offering undergraduate nursing. This state stands out when comparing the average number of vacancies offered (169.9, DP 146.8) with such states: Alagoas (155.7, DP 121.0), Ceará (143.3, DP 77.6), Piauí (113.8, SD 73.9) and Maranhão (111.4, SD 85.2).

#### 4. DISCUSSION

The quality of undergraduate nursing courses involves several aspects that aim at a whole context to achieve an approximation with the reality that these courses are inserted in. Thus, it is necessary to observe the

indices that are involved in the training of nurses as part of a survey of information that supports the process of improving the quality of teaching. Among these indices we can highlight: rate of teaching modality, average of vacancies offered, rate of the course concept, rate of administrative category, rate of the concept of NSPE and number of existing courses (CORRÊA; SANTOS; KOBİ, 2014).

In this study, it was possible to analyze 336 higher education institutions in nursing in the Northeast, of which 89% contemplate the face-to-face modality and 11% DL. Martins et al. 2019, in its study shows the growth of DL courses in Brazil, in which in the year 2004 it was not possible to identify courses in this modality, already in 2016 a quantity of 100 courses was observed. The same justifies that the Northeast region is the first region in the country with the largest number of DL courses and that the expansion of higher education occurred with the opening of this type of course.

Even considering 11% of the total number of nursing courses in the Northeast, the DL modality has impacts that can have an impact on the professional life of the future nurse. Nursing training is considered to require strengthening bonds of trust, requiring in-person care and guidance (LIRA et al., 2020). The Federal Nursing Council (FNC) takes a stand against DL in this area, but an expressive number of courses of this modality in the Northeast region is still noticeable.

There is also an expressive average of vacancies in DL nursing courses (263.98) in the region under study. This occurs due to its large territorial extension and historical factors of underdevelopment, such as difficulty of access, mainly in locations furthest from the capitals (MARTINS et al., 2019).

The courses offered by public HEI's in the Northeast region stood out with the highest concepts and had no minimum concept. Private companies stood out in concept 2 (50.4%), followed by concept 3 with 30.9% and only 1.4% with maximum concept. Even the private institutions with the highest number of HEI's, it can be observed that it contains a deficit in the quality of the results obtained in the evaluation of the course. The number of enrollments in undergraduate nursing courses has increased considerably in recent decades. Private HEI's have been experiencing an unrestrained expansion in these enrollments, which is closely linked to the quality control of teaching, reflecting on the formation of the future professional (CORRÊA; SANTOS; KOBİ, 2014). Even with the increase in the number of courses, it was not possible to notice efforts for a correct planning of this growth aiming at academic improvement with regard to the articulation of teaching and learning (LIMA, 2016).

NISR evaluates the quality of undergraduate courses through the evaluation of NSPE, which has a value from 1 to 5, as the value of the concept increases, better teaching quality is observed. Of the 406 existing courses in the Northeast, 37.5% presented concept 2, 6% concept 1 and 9.5% concept 5. Such data corroborate with the research of Lima, 2016 in which concept 1 is observed with 3%, concept 2 with 18% and concept 5 with 6%. Thus, it is noted that most courses do not meet the minimum quality criteria assessed by NSPE. These results indicate that even with the expansion of installed undergraduate courses, there is no training with very good indicators (CABRAL et al., 2013).

In the study by Frota et al., 2020, Brazil in the 1960s had 34 undergraduate courses in nursing and in 1988, 103. In 2000, the country obtained 183 courses and in 2014 881, so there is a potential increase in these numbers (PIERANTONI; MAGNAGO, 2017). In 2020, only the Northeast region, which has more states, stands out with 404 courses, in which the Bahian territory contains 24.5% of these, Pernambuco 15.8% and Sergipe 5.4%, being the smallest state and presenting the smallest rate. The increase in the number of

nursing courses in Brazil and, consequently, in the number of places available, refers to health needs and social demands to meet the job market (FROTA et al., 2020).

In the Northeast, the average number of vacancies per state is 162.2, with a total of 65,515 vacancies, with Pernambuco (203.0) and Sergipe (169.9) having averages higher than the general average of the region. Maranhão (111.4) is the state with the lowest average, being below the regional average. Pierantoni and Magnago, 2017 in their study point out that in 2000 Brazil reached 20,417 vacancies for undergraduate nursing, and in 2014 178,264. Even though the Northeast is not the most populous region in the country, it has a considerable vacancy rate (36.7%) when compared to this 2017 study.

## 5. Conclusion

The analysis carried out in this study points to a deficit in undergraduate nursing courses in the Northeast region. In view of such data, it is concluded that this increase in HEI is linked to the capitalist and mercantilist model, in which there is a concentration of private institutions and that this quantity is not equivalent to the concept acquired by them, which influences the quality standard.

Thus, there is an urgent need for new studies in the area of Nursing Education that have been showing accelerated and disordered growth of courses and the offer of vacancies without the proper monitoring of their quality. The quality indicators analyzed in this study, such as NSPE and the course concept, show that the expansion of the growth of courses in an uncontrolled way has an impact on the formation of critical and reflective nurses to attend to the individual's health in a holistic way, not developing skills and skills in professionals so that they can know and intervene in health-disease situations.

## 6. References

BECERRIL, Lucila Cárdenas. História da educação de enfermagem e as tendências contemporâneas. **História da enfermagem Revista eletrônica**, v. 9, n. 1, p. 1-2, 2018.

LIRA, Ana Luisa Brandão de Carvalho et al. Nursing education: challenges and perspectives in times of the COVID-19 pandemic. **Revista brasileira de enfermagem**, v. 73, 2020.

DUARTE, Ana Paula Ramos Silva; VASCONCELOS, Maria Viviane Lisboa; SILVA, Sóstenes Ericson Vicente. A trajetória curricular da graduação em Enfermagem no Brasil. **Revista Eletrônica de Investigação e Desenvolvimento**, v. 1, n. 7, 2017.

PIERANTONI, Celia Regina; MAGNAGO, Carinne. Tendências das graduações em Saúde no Brasil: análise da oferta no contexto do Mercosul. **Divulgação em Saúde para Debate**, v. 57, 2017.

XIMENES NETO, Francisco Rosemiro Guimarães. Educação em Enfermagem no Brasil: avanços e riscos. **Enferm. foco (Brasília)**, p. 4-5, 2019.

LUIZ, Franciane Silva et al. Papel do pensamento crítico na tomada de decisão pelo enfermeiro: revisão



integrativa. **Revista Eletrônica Acervo Saúde**, n. 38, p. e1763-e1763, 2020.

LIMA, Israel Coutinho Sampaio. Expansão dos cursos de enfermagem no nordeste: crescimento versus qualidade. **Revista Interdisciplinar**, v. 9, n. 4, p. 142-148, 2017.

Cabral, IE et al. Panorama of nursing education in Brazil, National Seminar on Nursing Research, Proceedings: Brazilian Nursing Association, Rio Grande do Norte, 2013.

SILVA, Kênia Lara et al. Oferta de cursos de graduação em enfermagem em Minas Gerais. **Texto & Contexto-Enfermagem**, v. 20, n. SPE, pág. 124-130, 2011.

MARTINS, Letícia Katiane et al. Expansão dos cursos de graduação em enfermagem no Brasil entre 2004 e 2017. **Enferm. foco (Brasília)**, p. 63-69, 2019.

DE MATTOS CORRÊA, Ludmilla Zangali; DOS SANTOS, Neuci Cunha; KOBI, Mirian Costa Barbosa. Expansão dos cursos de graduação em enfermagem em Mato Grosso: implicações e desafios. **Revista Eletrônica de Enfermagem**, v. 16, n. 4, 2014.

FROTA, Mirna Albuquerque et al. Mapeando a formação do enfermeiro no Brasil: desafios para atuação em cenários complexos e globalizados. **Ciência & Saúde Coletiva**, v. 25, p. 25-35, 2

VIEIRA, Maria Aparecida et al. Diretrizes curriculares nacionais do curso de graduação em enfermagem: implicações e desafios. **Rev. Pesqui.(Univ. Fed. Estado Rio J., Online)**, p. 1099-1104, 2020.

CASSIANI, Silvia Helena De Bortoli et al. The situation of nursing education in Latin America and the Caribbean towards universal health. **Revista latino-americana de enfermagem**, v. 25, 2017.

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