Characterization of undergraduate nursing courses according to the National Student Performance Exam

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How to cite this article:
DOI: http://dx.doi.org/10.1590/0034-7167.2016690222i

Submission: 03-20-2015 Approval: 11-14-2015

ABSTRACT

Objective: to characterize undergraduate nursing courses according to Enade (National Student Performance Exam) in 2010 and 2013.
Method: a quantitative documental study was performed and descriptive statistics was used for data organization and analysis.
Results: Enade report analysis enabled the identification of a reduction in the total number of institutions providing undergraduate nursing courses that passed the evaluation process. The Southeastern, Northeastern and Southern regions of Brazil included the highest numbers of courses assessed and showed the best results in the two evaluation cycles. Additionally, the courses characterized as “without a ranking” were mainly held at private institutions. Conclusion: the results of these evaluation cycles are important to support investigative and intervention processes about and with undergraduate nursing courses.
Key words: Nursing Evaluation; Nursing Education Research; Nursing Evaluation Research; Nursing Research.

RESUMO

Objetivo: caracterizar os cursos de Enfermagem segundo resultados do Enade, nos ciclos avaliativos de 2010 e 2013.
Método: estudo quantitativo de base documental, com organização e análise dos dados orientados pela estatística descritiva.
Resultados: a análise dos relatórios do Enade permitiu identificar um decréscimo no número total de instituições que ofertam cursos de graduação em enfermagem e que passaram pelo processo avaliativo. As regiões Sudeste, Nordeste e Sul do Brasil apresentaram as maiores quantidades de cursos avaliados, bem como os melhores resultados nos dois ciclos avaliativos. Observou-se também que os cursos avaliados como sem conceito em sua maioria pertenciam as instituições privadas. Conclusão: os resultados desses ciclos avaliativos são importantes para subsidiar processos investigativos e interventivos sobre e com os cursos de graduação em enfermagem.
Descritos: Avaliação em Enfermagem; Pesquisa em Educação de Enfermagem; Pesquisa em Avaliação de Enfermagem; Pesquisa em Enfermagem; Educação em Enfermagem.

RESUMEN

Método: estudio cuantitativo de base documental, con organización y análisis de los datos orientado por estadística descriptiva.
Resultados: el análisis de los informes del Enade permitió identificar una disminución en el número total de instituciones que ofrecen cursos de grado en enfermería y que pasaron por el proceso evaluativo. Las regiones Sudeste, Noreste y Sur de Brasil ofrecieron las mayores cantidades de cursos evaluados, así como los mejores resultados en los dos ciclos evaluativos. Se observó...
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INTRODUCTION

An evaluation is an operation that judges the value of an enterprise, based on a previously defined reference framework or comparative pattern\(^\text{1}\). Moreover, it could be considered as an operation to identify the presence or level of an expected value in the results of an undertaken action, based on the expected acceptability criteria.

There are many values involved in institutional evaluation and the interfaces among them. For this reason, it is understood as the evaluation of a non-linear, complex, contradictory and multi-reference phenomenon, fulfilling distinct purposes and meeting different interests. It is always a part of human life in an informal or formal way\(^\text{2}\). In the current higher education context, evaluation can be seen in different perspectives, indicating debates and approaches that translate the political and theoretical-methodological perspective in which this category is conceived and practiced in the sphere of academic and administrative management\(^\text{3}\).

More attention was given to this in the 1990s\(^\text{4}\). Currently, it has played a more central role in institutional and Brazilian education system reforms, as required by the job market and promoted by the government. The perspective is to improve social and scientific quality, the relevance and public sense for the set of academic and administrative activities of Higher Education Institutions (HEI)\(^\text{5}\).

The evaluation processes found in the context of higher education in Brazil have been comprised by a broad system that includes a set of mechanisms and procedures. Among them, there is the Exame Nacional de Desempenho dos Estudantes (Enade – National Student Performance Exam), which is part of the Sistema Nacional de Avaliação da Educação Superior (SINAES – National Higher Education Assessment System).

The Enade was created by Law 10,861 from April 14\(^\text{th}\) 2004, an important instrument to measure and promote quality for undergraduate courses and higher education policies in Brazil\(^\text{6}\).

Thus, the Enade is aimed at assessing the performance of students in terms of competence, knowledge, course syllabus and qualification in general. Its development is based on students’ qualification and experience processes; not only on the exclusive moment of completion of an undergraduate course, but rather on a continuum. It is not only described by its end or professional contents, but rather by exploring contents from all aspects found in the Diretrizes Curriculares Nacionais (DCN – National Curriculum Guidelines)\(^\text{7}\).

Based on this statement, it can be inferred that the Enade results for the nursing area can contribute to the evaluation of course quality and qualification profile of nurses. In view of what has been described, the present study aimed to characterize undergraduate nursing courses based on Enade results in the 2010 and 2013 evaluation cycles.

METHOD

A quantitative, documental analytical-descriptive study was performed from the Inep/MEC database. It was based on reports on Enade results obtained in 2010 and 2013 from undergraduate nursing courses, promoted and made available on the website of the Instituto Nacional de Pesquisas e Estudo Anísio Teixeira (INEP – Anísio Teixeira Brazilian Institute of Research and Studies).

Enade’s Ranking is a quality index that assesses the performance of students from the results obtained by them when taking this exam. Its calculation is performed per Observation Unit, consisting in the set of courses comprising a specific section of Enade from HEI in a certain city\(^\text{8}\).

Graduates’ grades in the Enade of the Observation Unit (Course Grade – CG) is the weighted mean of standardized grades of observation units in General Qualification (GQ) and Specific Component (SC), where the weight of general qualification is 25% and that of the specific component is 75% of the final grade, as shown in the following equation:

\[
CG = 0.25 \cdot NP_{GQ} + 0.75NP_{SC}
\]

The Enade Ranking is a discrete variable whose values can be \(1\) (\(0 \leq CG < 0.945\)), \(2\) (\(0.945 \leq CG < 1.945\)), \(3\) (\(1.945 \leq CG < 2.945\)), \(4\) (\(2.945 \leq CG < 3.945\)) and \(5\) (\(3.945 \leq CG \leq 5\))\(^\text{8}\). The observation units with only one or without any participating graduates does not receive a ranking and is thus characterized as “without a ranking (WR)”. The results are promoted annually to courses that included graduates participating in the Enade.

The descriptive-analytical corpus focused on the number of undergraduate nursing courses assessed in the 2010 and 2013 cycles, according to the administrative category/nature of the Higher Education Institution, number of courses per Brazilian region, number of courses without a ranking in all Brazilian regions and distribution of courses according to unsatisfactory rankings (Rankings 1 and 2) and satisfactory rankings (Rankings 3, 4 and 5) in both evaluation cycles. Data organization and analysis were guided by descriptive statistics, based on the description of absolute frequency (\(f\)) and percentages (%) in the form of illustrative tables. The results were discussed according to the relevant literature.
RESULTS

The analysis of Enade's 2010 and 2013 evaluation cycle reports enabled us to identify the HEI's administrative categories. The 2010 report divided institutions into public and private categories, while the 2013 report stratified these two previous categories into other sub-categories. The private HEI were divided into for-profit and not-for-profit private institutions. In contrast, the public HEI were stratified into city, state and federal ones. Table 1 shows the number of HEI with undergraduate nursing courses evaluated, according to the aforementioned categorization.

Table 1 – Distribution of Higher Education Institutions with undergraduate nursing courses per administrative category, according to the 2010 and 2013 Enade reports, city of Sobral, Ceará, Brazil, 2015

<table>
<thead>
<tr>
<th>Administrative categories</th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>137</td>
<td>19.8</td>
</tr>
<tr>
<td>Public, federal</td>
<td>-</td>
<td>64</td>
</tr>
<tr>
<td>Public, state</td>
<td>-</td>
<td>47</td>
</tr>
<tr>
<td>Public, city</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Private</td>
<td>554</td>
<td>80.2</td>
</tr>
<tr>
<td>Private, for-profit</td>
<td>-</td>
<td>207</td>
</tr>
<tr>
<td>Private, not-for-profit</td>
<td>-</td>
<td>237</td>
</tr>
<tr>
<td>Total</td>
<td>691</td>
<td>100.0</td>
</tr>
</tbody>
</table>

There was a reduction in the total number of HEI that offer undergraduate nursing courses and passed the evaluation process. In 2010, 687 courses were assessed in several regions of Brazil, whereas this absolute number was 569 in 2013, a reduction in 17.17% in the number of courses assessed. Another aspect observed in Table 1 was the significant presence of the private sector in nursing qualification.

Another unit of analysis identified in this study was the number of courses evaluated according to region in Brazil, as shown in Table 2. In 2010, in an increasing order, the Southeastern and Northeastern regions had the highest numbers of courses assessed, 302 (43.96%) and 162 (23.58%), respectively, followed by the Southern region with 113 (16.45%), Mid-Western region with 70 (10.19%) and Northern region with 40 (5.82%) courses. In 2013, the same profile was maintained by region with number of courses per region: the Southeastern region had 225 (39.54%), the Northeastern region, 150 (26.4%); the Mid-Western region, 65 (11.4%); and the Northwestern region, 39 (6.9%) courses.

There was a reduction of 17.17% in the number of undergraduate nursing courses assessed in the 2013 evaluation cycle, compared to the 2010 evaluation cycle. In addition, there was a decrease in the number of courses assessed in almost all regions, especially the Southeastern region, where this figure dropped from 321 (46.4%) in 2010 to 225 (39.54%) in 2013. The exception was the Mid-Western region, where there was an increase in the number of courses assessed from 62 (9.0%) to 65 (11.4%).

Table 3 shows the number of undergraduate nursing courses evaluated as “without a ranking” (WR) in both evaluation cycles (2010 and 2013). This number decreased from 195 in 2010 to 42 in 2013. Moreover, the data shown in Table 3 enable us to infer that, in both evaluation cycles, the Southeastern region had the highest number of nursing courses characterized as “WR”, including 75 courses in 2010 and 32 courses in 2013, with relatives frequencies of 38.5% and 76.2% respectively.

Table 3 – Distribution of undergraduate nursing courses characterized as “Without a Ranking” per Brazilian region, according to the 2010 and 2013 Enade reports, city of Sobral, Ceará, Brazil, 2015

<table>
<thead>
<tr>
<th>Region</th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>36</td>
<td>5.2</td>
</tr>
<tr>
<td>Northeast</td>
<td>161</td>
<td>23.3</td>
</tr>
<tr>
<td>South</td>
<td>111</td>
<td>16.1</td>
</tr>
<tr>
<td>Southeast</td>
<td>321</td>
<td>46.4</td>
</tr>
<tr>
<td>Mid-West</td>
<td>62</td>
<td>9.0</td>
</tr>
<tr>
<td>Total</td>
<td>691</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Developed from the 2010 and 2013 Enade reports, Inep/MEC.
Regarding the courses assessed as “WR”, the majority were held in private HEIs, 161 courses (82.6%) in 2010 and 39 (92.8%) courses in 2013. Furthermore, the significant number of courses assessed as “WR” in the Southeastern region were primarily held in private institutions, totaling 70 courses (35.9%) in 2010 and 30 courses (71.4%) in 2013 respectively.

The assessment of undergraduate nursing courses according to the 2010 and 2013 evaluation cycles is shown in Table 4. Except for the 195 courses categorized as WR in 2010, 496 courses obtained a ranking from 1 to 5, thus being eligible for evaluation. Regarding the 2013 cycle, considering the 42 courses obtained a ranking from 1 to 5, thus being eligible for evaluation. Among these, 496 (100.0%) obtained a ranking equal to or higher than 3; 96 (19.3%), a ranking 4; and seven (1.4%), a ranking of 5.

DISCUSSION

Throughout its existence, the area of nursing education in Brazil has undergone transformations, given the requirements of its role in the qualification of workers with an adequate profile for the population’s health needs and the legitimacy of its role in the production of innovating knowledge and usefulness for society.

With regard to the job market in the area of health, significant changes have been occurring, such as the new ways to organize the world of health work and the requirements in the profile

Table 4 – Distribution of undergraduate nursing courses per ranking obtained, according to the 2010 and 2013 Enade reports, city of Sobral, Ceará, Brazil, 2015

<table>
<thead>
<tr>
<th>Conceito</th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>2</td>
<td>102</td>
<td>20.6</td>
</tr>
<tr>
<td>3</td>
<td>290</td>
<td>58.5</td>
</tr>
<tr>
<td>4</td>
<td>96</td>
<td>19.3</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>496</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Developed from the 2010 and 2013 Enade reports, Inep/MEC.

Table 5 – Distribution of undergraduate nursing courses per region and ranking, according to 2010 and 2013 Enade reports, city of Sobral, Ceará, Brazil, 2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>- -</td>
<td>- -</td>
<td>11</td>
<td>10.8</td>
<td>18</td>
<td>10.8</td>
<td>17</td>
<td>5.9</td>
<td>14</td>
<td>6.2</td>
</tr>
<tr>
<td>Northeast</td>
<td>1</td>
<td>100.0</td>
<td>4</td>
<td>26.7</td>
<td>25</td>
<td>24.5</td>
<td>51</td>
<td>30.5</td>
<td>54</td>
<td>18.6</td>
</tr>
<tr>
<td>South</td>
<td>- -</td>
<td>- -</td>
<td>16</td>
<td>15.7</td>
<td>10</td>
<td>6.0</td>
<td>56</td>
<td>19.3</td>
<td>52</td>
<td>23.2</td>
</tr>
<tr>
<td>Southeast</td>
<td>- -</td>
<td>8</td>
<td>53.3</td>
<td>39</td>
<td>38.2</td>
<td>65</td>
<td>38.9</td>
<td>137</td>
<td>47.2</td>
<td>81</td>
</tr>
<tr>
<td>Mid-West</td>
<td>- -</td>
<td>3</td>
<td>20.0</td>
<td>11</td>
<td>10.8</td>
<td>23</td>
<td>13.8</td>
<td>26</td>
<td>9.0</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>100</td>
<td>15</td>
<td>100</td>
<td>102</td>
<td>100</td>
<td>167</td>
<td>100</td>
<td>290</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Developed from the 2010 and 2013 Enade reports, Inep/MEC.
of professionals aimed at the existing political-socioeconomic model in Brazil, which has required transformations in the professional qualification process. Such context requires qualifying institutions to implement actions that turn the qualification process towards the development of competences for the exercise of practices and knowledge that provides answers to these changes in the job market and society.

Data from Enade’s 2010 and 2013 evaluation cycles show an increase in the number of undergraduate nursing courses provided, especially in private institutions, whether they are for-profit or not-for-profit. It can be inferred that this is due to the changes in the political and socioeconomic context found in Brazil and that this has been the determining factor of nursing education characteristics, influencing the creation of schools and nursing qualification in this country.

In fact, after the passing of Lei de Diretrizes e Bases da Educação (LDB – Law of Education Guidelines and Foundations), known as Law 9394/1996, there was a more flexible approach to the creation of courses in Brazil, according to neoliberal policies that strongly guided the federal government during this period and still plays a great influence in the current context. The regulation of such law through Article 45 mentions that higher education should be held in Higher Education Institutions (HEI), whether public or private, including several levels of coverage. The development of higher education, as enabled by Law 9870/1999, confirmed the possibility of private education institutions to operate on a profit basis.

Data on the number of enrollments in undergraduate nursing courses in Brazil indicates that this figure has almost doubled in four years, considering data between 2004 and 2008, increasing from 120,851 to 224,330. The development of such courses represents the democratization of access to higher education and greater availability of professionals in the market. However, the availability of nursing jobs and the relationship between quality and quantity of professionals required to consolidate the Sistema Único de Saúde (SUS – Unified Health System) should be questioned.

Additionally, the increase in the availability of nursing courses in the different regions of this country, especially when public and private HEI are compared, does not follow a pattern of quality that guarantees a profile of high-quality qualification, even when the Curricular Guidelines for the area of Nursing and the entire legislation that regulates this profession are taken into consideration.

Despite the significant amount of workforce in nursing in absolute numbers and the increase in the number of courses in the two last decades in the entire country, the distribution of nurses is unequal and the availability of professionals per inhabitants is insufficient. The present study showed that the Southeastern region concentrates the highest number of nursing courses offered and assessed. Nursing schools are concentrated in the regions with the highest population density and income concentration in Brazil, following the Gross Domestic Product (GDP), reflecting regional inequalities. However, it is recognized that there is a movement against hegemony aimed at increasing access to nursing education, as the present study revealed that the Northeast region, despite its lack of income concentration, had the second highest number of nursing courses and the second best performance when compared to the other regions.

A study conducted in the state of Minas Gerais corroborates the finding that the private sector has increased in the area of management and promotion of nursing schools, when reporting that, out of 52 Higher Education Institutions whose undergraduate nursing courses were included in the present study, 10% belonged to the federal public network, 2% to the state public network and the remaining ones to the private network, of which half was for-profit and the other half, not-for-profit.

On the one hand, we can consider the phenomenon of increase in the number of undergraduate nursing courses in Brazil as a whole as something positive, considering the greater availability of professionals in the market and the possibility of democratization of access to higher education. On the other hand, this increase could be occurring without a close association with health policies, both from the perspective of the course profile and that of geographical distribution, significantly important in such a large country. In other words, entrepreneurs in the area of education may have seen the availability of jobs resulting from the policy of primary health prioritization and implementation of Family Health teams in the late 1980s and early 1990s only as an opportunity to invest in a profitable business, although temporary, without committing to public policies.

Efforts are aimed at preserving universities so they can be centers of scientific and technological production and promotion of arts and humanities, apart from being institutions geared towards qualifying highly competent professionals, beyond the financial and market demands.

If we consider the number of institutions that have been assessed and categorized with unsatisfactory rankings in both periods, the number of undergraduate nursing courses was significantly high, especially those in the private sector. Evidently, the “positive” variation in the number of HEI between evaluations should be emphasized. Perhaps the evaluation process itself, conducted by SINAES through Enade, could explain this, as it influences the constant search for improvement in such courses, whether in the qualification process of undergraduate nursing students or in the quality of the educational structure.

According to Inep and based on a scale that ranges from 1 to 5, courses held at institutions that obtained rankings of 1 and 2 will be subject to regulatory and supervision measures. In such cases, not only the Enade ranking is taken into consideration, but also the Conceito Preliminar por Curso (CPC – Preliminary Course Ranking). The first measure is to suspend the enrollment of new students in these courses. In addition to this precautionary measure, these courses have to be committed to a detailed improvement plan that must be met in the short or medium term.

As previously described, the area of health, especially nursing, seems to significantly attract education entrepreneurs. However, it is the responsibility of regulatory institutions in the area of education in Brazil and nursing representative entities to pay attention to the way undergraduate nursing courses are organized, implemented and structured. Enade’s 2010 and 2013 evaluation cycles indicate the need for a review of the nursing qualification process, mainly through private initiative.
that received public permission to provide such courses, and greater proximity and integration between public and private qualification processes, which may lead to more homogeneous and qualified nursing qualification for health care.

One of the questions raised by the present study was the lack of clarity when justifying the reduction in the number of courses assessed in both evaluation cycles with an unsatisfactory ranking. It is questioned whether they are meeting the precautionary measures taken by the evaluation system to improve educational resources, infrastructure and teaching staff, achieving new rankings, or if, in fact, these courses have not had students who are graduating and being submitted to Enade’s evaluation.

Considering the fact that the evaluation process of the higher education courses implemented by Inep/MEC is a relevant quality index of qualification, although Enade cannot measure all variables involved in the nursing qualification process, it can generate important data to begin a significant process of discussion about nurses’ qualification and the responsibilities of public and private institutions. The low number of courses that achieved a ranking of 5 in both evaluation cycles stood out. It should be emphasized that they are mainly concentrated in public institutions that already have a certain tradition in nursing qualification.

**CONCLUSION**

The Exame Nacional de Desempenho dos Estudantes de Enfermagem (Enade – National Student Performance Exam) is important as university course qualification must be assessed, as it can promote the improvement of higher education in Brazil. To achieve this, the results of these two evaluation cycles must contribute to investigative and intervention processes about and with undergraduate nursing courses.

The present study, while responding to the proposed objective of characterizing nursing courses assessed in the 2010 and 2013 evaluation cycles, enabled us to understand that there has been an increase in the number of higher education institutions offering undergraduate nursing courses in recent years, especially concentrated in the private sector. The nursing courses with the best performance are found in the Southeastern and Northeastern regions of Brazil, primarily in the public sector. Another important result was the observation that the majority of courses categorized as “WR” were concentrated in the private sector in the Southeastern region. However, there was a reduction in the number of WR courses from the 2010 to the 2013 evaluation cycles.

When considering evaluation as an essential activity in the process of professional qualification, it is expected that initiatives such as this study, despite its limitation with a focus restricted to Enade results, can provide feedback to nursing qualification institutions, aiming to make decisions to improve teaching and learning practices.

However, a thorough evaluation of Enade is required, as this is considered to be almost like an evaluation according to some scholars, not aimed at observing how far students are meeting norms and patterns previously defined by specialists, i.e. how the profile of graduates entering the job market is, but rather that simply assessing a course means to promote a ranking of institutions providing nursing qualification.

Moreover, regarding the present study, considerations must be taken with caution. Nonetheless, the course evaluation process should be valued, particularly those held by nursing schools, in the sense that this process, apart from such evaluation, contributes to the regulation of the Higher Education System, despite the severe criticisms against this exam.

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