# Panorama of nursing distance education in Brazil\*

PANORAMA DA EDUCAÇÃO À DISTÂNCIA EM ENFERMAGEM NO BRASIL

PANORAMA DE LA EDUCACIÓN A DISTANCIA EN ENFERMERÍA EN BRASIL

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#### **ABSTRACT**

The development of distance education is associated with the popularization and democratization of the accessibility to information and communication technologies. Nursing has been using this modality of education in both undergraduate and graduate courses, which has provided knowledge about other technologies, an easier accessibility, flexibility of time and space, and reduced costs. The objective of this study is map the national higher education distance nursing courses. This exploratory, descriptive study was developed by visiting governmental, non-governmental and institutional websites. Two undergraduate and nine graduate courses in nursing were found, which is considered to be a low number, considering that distance education is an appropriate pedagogical tool that permits to prepare a large number of nurses who are geographically dispersed and who do not have access to the conventional educational processes.

# **DESCRIPTORS**

Education, distance Nursing informatics Education, nursing

#### **RESUMO**

O desenvolvimento da educação à distância está associado à popularização e democratização do acesso às tecnologias de informação e de comunicação. A enfermagem vem se apropriando desta modalidade de ensino em seus cursos de graduação e pós-graduação, o que tem possibilitado conhecimento de novas tecnologias, facilidade de acesso, flexibilidade temporal e espacial e custos reduzidos. Objetivou-se realizar um mapeamento nacional de forma a identificar os cursos de ensino superior de enfermagem na modalidade educação à distância. Trata--se de um estudo exploratório descritivo, desenvolvido a partir de consultas a sites governamentais, não governamental e institucionais. Foram encontrados dois cursos de graduação e nove de pós-graduação oferecidos na área de enfermagem, o que é considerado um número ainda baixo, já que a educação à distância é uma ferramenta pedagógica adequada que permite a qualificação de grande contingente de enfermeiros que estão dispersos geograficamente e que não possuem acesso aos processos convencionais de ensino.

# **DESCRITORES**

Educação à distância Informática em Enfermagem Educação em Enfermagem

#### **RESUMEN**

El desarrollo de la Educación a Distancia está asociado a la popularización y democratización del acceso a Tecnologías de Información y Comunicación. La Enfermería ha ido aproximándose a tal modalidad de enseñanza en sus cursos de graduación y posgraduación, lo que posibilitó el conocimiento de nuevas tecnologías, facilidad de acceso, flexibilidad temporal y espacial y costos reducidos. Se objetivó efectuar un mapeo nacional para identificar los cursos de enseñanza superior de enfermería en la modalidad Educación a Distancia. Estudio exploratorio, descriptivo, desarrollado a partir de consultas a webs gubernamentales, no gubernamentales e institucionales. Se encontraron dos cursos de graduación y nueve de posgraduación ofrecidos a enfermería, número aún considerado bajo, ya que la Educación a Distancia es una herramienta pedagógica adecuada que permite la calificación de un gran contingente de enfermeros dispersos geográficamente y sin acceso a los procesos convencionales de enseñanza.

# **DESCRIPTORES**

Educación a distancia Informática aplicada a la enfermería Educación en enfermería

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#### INTRODUCTION

The development of Distance Education (DE) worldwide is associated with the popularization and democratization of access to Information and Communication Technologies (ICT), with the growing need to raise individuals' educational level, and continuous professional improvement and updating<sup>(1)</sup>.

Nursing has appropriated this teaching modality in its undergraduate and graduate programs, which has enabled professionals to interact and acquire knowledge concerning new technologies. Considering the increased development of research in recent years, as well as publications and discussions concerning distance education, we verify that it is still incipient in the Brazilian nursing context<sup>(2)</sup>.

Therefore, this study conducted a search concerning the inclusion of higher nursing education in DE in the Brazilian context. We conducted a national mapping project by region to identify the higher education programs (un-

dergraduate and graduate programs) in the field of nursing using the distance education modality, type of administrative category (whether it was public or private) and teaching modality, and compared it with the international context in which DE is found.

# LITERATURE REVIEW

According to Brazilian law, Distance Education is covered in the Decree 5,622, December 19<sup>th</sup> 2005 that revokes Decree 2,494/98 and regulates Article 80 law 9,394/96 (LBD), and is characterized as an educational modality in which the didactic-pedagogical mediation in the teaching and learning processes occurs with the use of in-

formational and communicative means and technologies, with students and professors developing educational activities in different settings and schedules<sup>(3)</sup>. Hence, in this context, learning and communication are mediated by technological resources based on the individuals' learning rhythm, needs, abilities and availability of time<sup>(4)</sup>.

The Brazilian Ministry of Education and Culture (MEC) created the Open University System of Brazil (UAB) in 2005, whose priority was to educate primary education teachers through cooperation among public higher education institutions, Brazilian states and cities. The goal is to enable access to higher education based on the DE methodology for segments of the population excluded from the educational process. The UAB proposes that existing teaching institutions cooperate among them instead of creating a new institution<sup>(5)</sup>.

Some studies argue that time and distance, light and dark in educational terms, depend on how one sees things

and what one does. It is necessary to bring students into the proximity of education and captivate them, offering an affective, stimulating, and dialogical environment that promotes learning regardless of the educational modality<sup>(6)</sup>.

DE should preserve all the attributes of good education in order to enable the development of cognitive, social, emotional, professional and ethical skills for individuals and, in order to ensure quality education, its curricular content should not be restricted. Its teaching philosophy should provide students the opportunity to interact, develop group projects, recognize and respect different cultures and construct knowledge. Distance programs can be evaluated based on the project's design, which should specify the teaching and learning process and curricular organization, multidisciplinary team, didactic material, interaction of students and professors, evaluation of teaching and learning, support infrastructure, management and costs<sup>(1)</sup>.

It is known that challenges are innumerous because time spent on planning, publication and application of a DE program is very intense if compared to a conventional

program, thus, requires greater dedication and knowledge concerning the theme and technology to be used<sup>(7)</sup>. Significant progress has been observed in the Brazilian nursing in the DE modality in relation to the availability of material in virtual learning environments (texts, videos, links) in qualification programs and undergraduate courses, which has permitted interactivity, dissemination of information, update of content in continuing education, and the growth of health and nursing professionals<sup>(2,8)</sup>. Hence, the use of new technologies also enables the digital inclusion of nursing students collaborating to minimize social and information inequalities<sup>(6)</sup>.

Considering the increased development of research in recent years, as well as publications and discussions concerning distance education, we verify that it is still incipient in the Brazilian nursing context.

#### **METHOD**

This exploratory descriptive study was based on consultation with governmental and non-governmental entities, and also institutional sites to obtain information concerning online teaching, more specifically in nursing, within Brazilian borders. The search was conducted from August to mid-October 2009.

The search was initially conducted in government sites related to national and distance education. The sites of the Ministry of Education and Culture (MEC)<sup>(9)</sup>, the National Institute of Educational Research Anisio Teixeira (INEP)<sup>(10)</sup>, and Higher Education Institutions (HEI) offering undergraduate and graduate programs in the DE modality were accessed. The site of the Brazilian Association of Distance Education (ABED)<sup>(11)</sup> was also consulted to verify graduate nursing programs but it contained incomplete and obsolete data concerning the listed programs, hence it was not used.



The nursing undergraduate programs were identified in the MEC site through the icon "Accredited Institutions". The programs authorized by MEC can be accessed on this page by geographical region. A total of 791 undergraduate nursing programs were available during the data collection period, though they were not listed according to the teaching modality<sup>(9)</sup>. Hence, it was necessary to access each identified program to verify whether they were classroom based or DE modality, which was the study's objective. Then, the HEI sites that made available undergraduate nursing programs in the DE modality were accessed to verify these programs were offered.

The graduate nursing programs in the DE modality were searched in the MEC portal and only the accredited HEI were available. Therefore, a search was conducted in 41 HEI sites to obtain data on the graduate programs. Specialization programs in the DE modality but not specifically in the field of nursing were excluded.

Data were then analyzed and compared to the Higher Education Census conducted in 2007. It presents a national panorama concerning higher education and its teaching modalities. Afterwards, the programs were categorized according to geographic region, administrative category, and teaching modality. We faced great difficulty while seeking data for this study due to incomplete and obsolete information provided in the analyzed sites.

#### **RESULTS AND DISCUSSION**

The number of HEI and undergraduate distance programs has significantly increased in recent years in the most diverse fields of knowledge. According to data from the 2007 Higher Education Census, undergraduate distance programs were offered in 97 HEI, which represented an increase of 19 institutions (19.6%) in relation to 2006. Another 59 new distance programs were created, that is, an increase of 16.9% if compared to 2007, totaling the supply of 408 programs in this modality of teaching<sup>(12)</sup>.

A total of 208 HEI were registered in the site of MEC during the study's time period, which are presented in Figure 1. Most were concentrated in the southeast with 88 (42.3%). The other regions follow in decreasing order of concentration: 43 (20.7%) in the south; 42 (20.2%) in the northeast; 19 (9.1%) in the midwest and six (7.7%) in the north<sup>(13)</sup>.

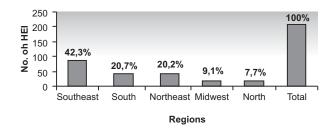


Figure 1 – Distribution of Higher Education Institutions offering distance programs according to geographical regions – Brazil, 2009.

These data represent an increase of 114.43% in relation to the census conducted in 2007. Of these, 109 (52.4%) are private institutions, 64 (30.8%) are federal, 30 (14.4%) are state institutions and five (2.4%) are city institutions (Figure 2).

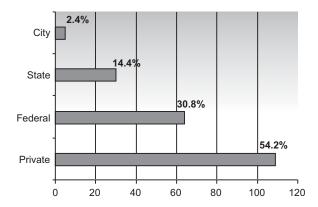


Figure 2 – Higher Education Institutions according to administrative management – Brazil, 2009.

According to MEC there are 791 registered undergraduate nursing programs; only three of these offer the DE modality (Table 1): Castelo Branco University in the southeast offers a Bachelor's degree program with 200 authorized slots lasting eight semesters; Federal University of Juiz de For a, also in the southeast, offers a teaching diploma program with 376 authorized slots and duration of four semesters; and the Anhanguera University (UNI-DERP) in the midwest region and offers a Bachelor's degree program with 400 authorized slots and duration of eight semesters<sup>(9)</sup>. It is worth noting that in the MEC's site, the nursing program of the last institution was appearing as *in process of elimination*. In fact, the program was no longer available in the site of the institution itself.

**Table 1** – Undergraduate nursing programs according to teaching modality - São Carlos, SP, Brazil - 2009

Undergraduate nursing programs			
Regions	N	Traditional	DE
Southeast	372	370	2
Northeast	177	177	-
South	117	117	-
Midwest	78	77	1
North	47	47	-
Total	791	788	3

Data concerning graduate programs identified in the DE modality were not found in the Higher Education Census from 2007, which hindered comparison concerning the growth in the number of the programs in the period. A total of 41 accredited HEI were searched in the site of MEC: 23 in the southeast, 11 in the south, three in the north, three in the Midwest and one in the northeast, totaling five *sensu lato* (non-degree) nursing programs: (1)



Pedagogical Training in Vocational Education in the Health Field: Nursing (Oswaldo Cruz Foundation), (2) Occupational Nursing and (3) Training Teachers for Vocational Education in Nursing (São Luis Faculdade de Educação), (4) Occupational Nursing and (5) Surgical Nursing (Faculdades Integradas de Jacarepaquá).

Another three *sensu lato* graduate programs were found on the UAB site: Didactic-pedagogical for nursing education (Federal University of Pernambuco), Pedagogical Training in Vocational Education in Health: Nursing (Federal University of Minas Gerais – UFMG) and Nursing Management (Federal University of São Paulo – UNIFESP)<sup>(14)</sup>. The latter is not, however, available on the site of this institution, though another two programs were found: Specialization Program in Nursing and Infectious Diseases and Online Specialization Program in Nursing in Nephrology.

Hence, there are two undergraduate programs, since one is no longer available on the HEI site, and nine graduate nursing programs offered in the DE modality. These are considered small numbers since DE is an appropriate pedagogical tool that would allow the qualification of a large contingent of nurses geographically separated and who do not have access to traditional teaching processes<sup>(15)</sup>.

These data enable us to reflect upon the need to change ways of thinking about and doing education, both for students and educators. All those involved need to be properly prepared in relation to the technical-scientific and ethical aspects involving this pedagogical modality<sup>(16)</sup>. The nursing field also has to face a challenge related to the need to train educators for the professionalization of workers to meet an educational demand in the health field<sup>(17)</sup>.

One of the difficulties for those who desire to attend a distance education program is related to how information

is made available. Even though institutions release the information that they offer such programs, when we seek them on the internet, they are not easily located.

It is worth noting that after the period of data collection defined for this study, the MEC's site was updated and information concerning traditional and distance programs became more visible and searching became better facilitated<sup>(18)</sup>.

#### CONCLUSION

This study allowed us to conclude that DE, in general, is expanding in Brazil, which enables access for an increasing number of people to higher education both at the undergraduate and graduate levels. In this context, nursing has also benefited from the growth of this teaching modality, especially in the graduate field, despite its feeble growth when compared to other fields.

Quality DE provides favorable conditions for the education/improvement of nursing professionals amidst the large demand from the job market for more qualified nurses who master their field of work. Teaching diploma and graduate programs in the pedagogical field are essential to face the challenge of qualifying nurses to become educators in vocational programs.

This study is an important source of information for nursing professionals to reflect upon their practices and the need to appropriate DE resources to pursue constant updating. DE through the internet offers many possibilities, such as easy access, time and space flexibility, low cost, and the appropriation of ICT to continually improve professional nursing practice.

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