

Inclusive Education in Nursing: analysis of students' needs*

EDUCAÇÃO INCLUSIVA EM ENFERMAGEM: ANÁLISE DAS NECESSIDADES DE ESTUDANTES

EDUCACIÓN INCLUSIVA EN ENFERMERÍA: ANÁLISIS DE NECESIDADES DE LOS ESTUDIANTES

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ABSTRACT

Inclusive education is based on assisting all students alike, providing an education aimed at everyone equally in order to identify the particular educational needs of each student. The objectives of the present study were to identify the occurrence of disabilities, explore the learning resources that allow for inclusion; identify the architectural, communication, educational and attitudinal barriers that may affect students' performance; and discuss the students' suggestions of how to promote inclusion. This exploratory, descriptive, cross-sectional study was performed using a quantitative approach. Data collection was performed through interviewing undergraduate nursing students, using a questionnaire containing open- and closed-ended questions. It was found that 66.3% of students have a visual impairment and 1.2% reported having a hearing impairment, but no physical disability was reported. Architectural barriers were the most frequently mentioned by the interviewed students, followed by educational barriers.

DESCRIPTORS

Education
Education, nursing
Disabled persons
Education, special

RESUMO

A educação inclusiva tem por base atender os alunos sem distinção, proporcionando uma educação voltada a todos, de forma a identificar as necessidades educacionais de qualquer aluno. O presente estudo tem como objetivos verificar a ocorrência de deficiências; identificar os recursos pedagógicos que possibilitam a inclusão; conhecer as barreiras arquitetônicas, de comunicação, de atitudes e pedagógicas e que interferem no desempenho dos estudantes durante o curso e identificar as sugestões dos alunos para promover a inclusão. Trata-se de estudo exploratório, descritivo, transversal, com abordagem quantitativa. Os dados foram coletados junto a estudantes de graduação em Enfermagem por meio da aplicação de um questionário com questões abertas e fechadas. Dos respondentes, 66,3% apresentavam deficiência visual; 1,2%, deficiência auditiva e não houve relato de deficiência física. As barreiras arquitetônicas foram as mais citadas pelos estudantes participantes da pesquisa, seguidas das barreiras pedagógicas.

DESCRITORES

Educação
Educação em enfermagem
Pessoas com deficiências
Educação especial

RESUMEN

La educación inclusiva tiene por base atender a los alumnos indistintamente, proporcionándoles una educación orientada a todos, de modo tal de identificar las necesidades educativas de cualquier alumno. El estudio tiene por objetivo verificar la presencia de deficiencias; identificar los recursos pedagógicos facilitadores de la inclusión; conocer las barreras arquitectónicas, de comunicación, pedagógicas y de actitud que interfieren en el desempeño de los estudiantes durante el curso e identificar las sugerencias de los alumnos para promover la inclusión. Estudio exploratorio, descriptivo, transversal, de abordaje cuantitativo. Datos recogidos a partir de estudiantes de grado en Enfermería, mediante aplicación de un cuestionario con preguntas abiertas y cerradas. De los participantes, 66,3% presentaban deficiencia visual; 1,2% deficiencia auditiva y no existió testimonio de deficiencias físicas. Las barreras arquitectónicas fueron las más citadas por los estudiantes participantes de la investigación, seguidas por las pedagógicas.

DESCRIPTORES

Educación
Educación en enfermería
Personas con discapacidad
Educación especial

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INTRODUCTION

Getting into college is the dream of many students. Once a student gets into college, a new cycle starts in his/her life as new experiences arise, and every experience appears to be a new world that also brings a fear of change. This experience is lived by many students. For some, such as those with disabilities, the experience might once have appeared unattainable; however, changes in society have occurred that have resulted in broader educational proposals that have favored inclusion. Inclusive education is based on meeting all students alike, providing them with an education turned to all, in order to identify the needs of any student, regardless of whether or not he/she presents impairments, disabilities or demands for curricular adaptations, so that he/she can achieve both learning and development as a citizen.

Until the 1970s, most schools followed the Integration Model, i.e., they only accepted students who were able to follow the teaching methods and the learning pace of most students⁽¹⁾. Inclusive education was proposed to change this integrationist vision; no longer would the student have to adapt to the pace of the institution, but rather, the institution would have to guide its actions toward the student's individual needs in the educational process.

Inclusive education began to take shape in the 1990s with the UN's Universal Declaration of Human Rights (1990) and the Salamanca Statement: Principles, Policy and Practice in Special Education, which was proclaimed at the World Conference on Special Education and Special Educational Needs (1994) and is a document that reaffirms the Education for All movement and recognizes the need to provide education to people with special educational needs within the regular teaching system⁽¹⁾. These principles are designed to assist those people who, even within the context of rights in a democratic society, do not yet enjoy full conditions of physical, mental, emotional and intellectual respect⁽²⁾.

In 1996, Brazil passed a law exclusively regarding education, which is known as the current National Education Guidelines and Framework Law (LDB 9394/96)⁽³⁾, that, in addition to ensuring access and retention of students with special needs in regular school, holds that the State must provide access both to the school and to the completion of the course by these students, preferably in the regular public school system.

The presence of disabled students in schools requires the organization of access conditions, such as architectural changes, changes in the curriculum and teaching resources used for the development of education in the school system, but this process is sometimes difficult to accomplish. This requirement leads to a series of changes in the architecture, in the curriculum, and in the way the

curriculum is developed. It is worth highlighting that some factors may still affect the inclusion of disabled students, such as unprepared faculty and staff who are unaware or do not understand how to manage the different stigmas and prejudices. However, this process has been occurring gradually and calls for further discussion concerning structuring and suitability of curricula⁽⁴⁾.

According to the Ministry of Education⁽⁵⁾, school systems must enroll all students, and it is up to the schools to organize themselves to care for students with special educational needs and assure the students have the conditions necessary for quality education. We know that these actions are paying off because, according to the latest School Census of the Ministry of Education, there was a 640% increase in the admission of students with disabilities in regular classes, which is up from 43,923 students in 1998 to 325,316 in 2006⁽⁶⁾.

We should note that there will be no real inclusion if society feels entitled to choose which disabled students may be included⁽⁷⁾. For inclusion to become a reality, changes in the school system are necessary as well as in the attitudes related to respect, acceptance of differences and discussions regarding prejudice and stigmas.

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Therefore, we have adopted the definitions of disability and impairment put forth by the ICF (International Classification of Functioning, Disability and Health)⁽⁸⁾ in the studies that we have developed⁽⁹⁾ according to official documents, which define disability as the loss or abnormality of a body structure or physiological function, including mental functions. According to the ICF, the term abnormality refers strictly to a statistical variation from the statistical standards/norms established and should be used accordingly.

Disability is the umbrella term for impairments, activity limitations and participation restrictions. A disability indicates the negative aspects of the interaction between an individual and his environmental and personal factors.

This study continued the survey performed in 2006⁽⁹⁾ to update the data on students with disabilities or functional limitations who require resources to access and remain at the school and complete their graduate course in Nursing, with a specific focus on curricular changes and the proposition of a new and more dynamic and integrated organization of undergraduate and degree courses.

The present study aims to achieve the following: assess the occurrence of hearing loss (HL), physical disability (PD), visual impairment (VI), and functional, sensory and/or motor limitations, changes or special requirements of Nursing graduate course students; identifying teaching resources that enable access, retention and completion of graduate courses; understand the architectural, communication, teaching and attitudinal barriers interfering

with students' performance during the course; and identify students' suggestions in accordance with their special educational needs by considering access, retention and completion of the referenced course.

METHODS

This is an exploratory, descriptive and cross-sectional study utilizing a quantitative approach approved by the Research Ethics Committee of the teaching unit (CEP/EEUSP 883/2010).

The study was conducted with students enrolled in the Undergraduate Nursing Program at a public university in the city of São Paulo.

Students who agreed to participate in the study were given a questionnaire containing open- and closed-ended questions along with the Informed Consent Form and a letter containing details regarding the study. We obtained permission from the instructor before delivering questionnaires in the classroom.

The inclusion criteria were being a regularly enrolled student in the Bachelor's Nursing program and agreeing to take part in the study.

The data were collected in the first half of 2010 and then organized into a database and analyzed. The results were organized in tables and arranged in a descriptive manner as well.

RESULTS

The study was conducted in 2010 with 83 students regularly enrolled in the Nursing program of a public university in the city of São Paulo. Students from the second, third and fourth year participated in the research. As the data collection took place in the first half of 2010, first-year students were not included in the sample.

The results were grouped into socio-demographic data, data related to disabilities (HL, PD, VI), functional and sensorimotor limitations, and educational and architectural features that enable access, retention and completion of the undergraduate program. The data are presented as tables and descriptions.

According to the MEC⁽⁵⁾, some actions should be implemented in educational institutions so that students with special needs can achieve access, retention and completion of the course. Within these actions are adaptations relevant to learning, curriculum and architectural resources in addition to attitudinal issues.

The students participating in the study were asked open-ended questions regarding which teaching resources for people with disabilities they considered important for the completion of the graduate course. It is important to highlight that the number of responses is different from

the number of students because each student may have given more than one answer regarding the resources they feel are necessary.

Regarding accessibility, students mentioned the architectural features that they consider most important to improve physical access at the educational institution. The most frequently cited feature was the construction of ramps (18.60%). This feature was followed by desks adaptable to wheelchairs (13.95%), adaptation of elevators (10.46%), widened doors (9.30), adaptations in the cafeteria and in the building entrance turnstiles (5.81%), handrails, accessible toilets, use of microphones in the classrooms, widened library aisles and architectural adaptation of classrooms (4.65%). Adequacy of lighting and appropriate furniture for left-handed students were mentioned by 3.48%, and catwalks were mentioned by 1.16% of the students; 4.65% of the students chose not to answer.

Table 1 - Student distribution according to socio-demographic and academic variables - São Paulo, 2010

Variable	N	%
Age		
18-22	60	72.3
23-27	19	22.9
27-32	3	3.6
No answer	1	1.2
Gender		
Female	77	92.8
Male	5	6.0
No answer	1	1.2
Student's place of birth		
SP and Great SP	50	60.2
Interior of the city	8	9.7
Another state	3	3.6
Another country	1	1.2
No answer	21	25.3
Student's place of residence		
SP and Great SP	51	61.4
Interior of the city	8	9.7
Another state	2	2.4
Another country	1	1.2
No answer	21	25.3
High School		
Attended private school	22	26.5
Attended public school	3	3.6
Partially attended public school	40	48.2
No answer	18	21.7
Course		
Bachelor's Degree in Nursing	43	51.8
Bachelor's and Licensing Degree in Nursing	22	26.5
No answer	18	21.7
Current semester		
3rd	21	25.3
5th	41	49.4
7th	21	25.3

Table 2 - Occurrence of HL, PD, VI disability and functional, sensorial and/or motor limitations, changes or special needs in students - São Paulo, 2010

Variable	N	%
VI		
Yes	55	66.3
Astigmatism	8	9.6
Myopia	16	19.3
Astigmatism and myopia	18	21.7
Hyperopia	4	4.8
Hyperopia and astigmatism	4	4.8
Hyperopia and myopia	1	1.2
Other	4	4.8
No	28	33.7
Total	83	100.00
HL		
Yes		
Right ear	1	1.2
No	82	98.80
Total	83	100.00
PD		
No	83	100.00
Total	83	

Table 3 - Distribution of student responses regarding teaching resources that enable access, retention and completion of graduation course - São Paulo, 2010

Variable	N
Audiovisual	
Reading Assistant	5
Books and writing in Braille	14
Sign language interpreter	13
Larger font in slideshows	9
Subtotal	41
Other resources	
Tutor	4
Employee training	4
Teacher Training	3
Pedagogical Follow-up	6
Subtotal	17
Total	58

DISCUSSION

Some aspects differentiate the students. We found that the age of the 83 participants ranged from 18 to 32 years: 72.3% were aged between 18 and 22 years, 22.9% were between 23 and 27 years, and 3.6% were between 27 and 32 years, which is similar to data found in similar research⁽⁹⁾. There was predominance of women (92.8%), and only 6.0% were men, and 1.2% did not answer.

Table 4 - Distribution of student responses regarding architectural resources that enable access, retention and completion of nursing graduate course - São Paulo, 2010

Variable	N	%
Ramps	16	18.60
Handrails	4	4.65
Catwalks	1	1.17
Widened doors	8	9.30
Accessible toilets	4	4.65
Adequacy of lighting	3	3.50
Accessible elevators	9	10.46
Use of microphones in classrooms	4	4.65
Architectural adaptation of the cafeteria	5	5.81
Furniture suitable for left-handed students	3	3.50
Adaptation at the entrance turnstiles	5	5.81
Desks adapted for wheelchairs	12	13.95
Widened library aisles	4	4.65
Architectural adaptation of classrooms	4	4.65
No suggestions	4	4.65
Total	86	100.00

As for nationality, 60.2% were from São Paulo or Greater São Paulo, 9.7% were from the interior of São Paulo, 3.6% were from another state, 1.2% were from another country, and 25.3% of the interviewees chose not to answer. Regarding origin, only 62 of the 83 students answered this question, and 61.4% reported coming from the city of São Paulo or from Greater São Paulo, 9.7% were from the interior of São Paulo, 2.4% were from another state, and 1.2% were from another country. It was possible to see a small difference between the percentages in regards to nationality and origin, and we inferred that some students ignored the difference between nationality and origin and/or may have been confused when answering this question.

As for previous education, 26.5% said they completed high school at a private school, 3.6% attended public schools, 48.2% attended both public and private schools, and 21.7% did not answer. The number of students who attended high school solely at public schools and attained higher education is less than that found in many other studies⁽⁸⁻¹⁰⁾.

Regarding the course, 51.8% of the students who participated in the study were studying for their Bachelor's degree in Nursing, while 21.5% were studying for both their Bachelor's degree and for licensing in nursing, and 21.7% of students chose not to answer the question. Additionally, in relation to the program, students from the 3rd (25.3%), 5th (49.4%) and 7th (25.3%) semesters participated in the survey. Some students reported having attended another undergraduate course, these students totaled 6.2% of the students. Among these courses were economics, geography, fashion and biomedical informatics (1.2% of students) and biology (2.4% of the respondents).

No student who reported having attended another undergraduate course completed the course.

In research carried out with undergraduate nursing students at the same institution⁽⁹⁾, we found that visual changes were reported by the respondents without specifying the change. In the present study, it was possible to identify the incidence and nature of each visual problem among the students who reported having visual impairment. With regard to the nature and incidence of visual changes among the students, 9.6% had astigmatism, 19.3% had myopia, 21.7% had astigmatism and myopia, 4.8% had hyperopia and astigmatism, 1.2% had hyperopia and myopia, and 4.8% mentioned other visual changes. These visual changes reported by the respondents are limitations that may hinder their performance during the program; for example, classes that use audio-visual materials, such as slides, become difficult in terms of reading, understanding and learning.

It was found that 48.2% of the students reported undergoing a periodic visual medical evaluation. The need for some type of reading resource was cited by 53.0% of the 83 students. Among the resources utilized, 50.6% reported using glasses as a reading aid, 1.2% reported wearing contact lenses and 2.4% reported wearing both glasses and contact lenses. The use of glasses is still the most commonly used reading resource mentioned by the students.

With regard to hearing impairment and similar to the first study⁽⁹⁾, hearing impairment was an uncommon issue (1.61%) among the respondents. In the present study, we found that only 1.2% of the total number of students had a hearing disability, while 98.8% stated they had no type of hearing impairment. Of the 83 students, 10.8% underwent medical assessment periodically to check for the occurrence of any hearing impairment. The student who presented with a hearing disorder reported lesser ability to hear in his/her right ear but did not mention at what age hearing loss had occurred nor the reason or the cause of this hearing loss. He/she did not report the use of a hearing aid. This same student did not inform the researchers whether he/she needs any individual assistance to complete the current program. Such a reported characteristic or hearing deficiency must be observed in practical classes in the laboratory⁽¹⁰⁾ and in the clinical field as well as in the classroom. For example, the student may need visual/non-auditory methods for the performance of physical examinations of patients or teaching mannequins.

With regard to disability, none of the students participating in the current study reported having any difficulties or limitations. In a study conducted in 2004⁽⁹⁾, the prevalence of disabilities among students was 5.22%, with reports of tendinitis of the knees and shortening of the tendon in the leg. In this study, none of the respondents reported having difficulty or limitations in moving around, and thus, none required any aids, such as a cane, crutches, a walker, a wheelchair, a prosthesis

or orthosis. Only 2.4% of the students reported undergoing medical evaluation periodically when a problem presented itself.

Concerning mobility and motor coordination, 79.5% of the students reported being right-handed, 12.0% left-handed and 8.4% did not answer. No respondent reported needing any type of resource to write or to use the upper limbs, such as a prosthesis or an aid to hold a pencil. In a previous study⁽⁹⁾, 88.8% reported being right-handed, 9.7% left-handed and 1.49% ambidextrous. These results are compatible with the characteristics of the Brazilian population. It is worth mentioning that the dominance of the left hand is not considered to be a disability but rather an individual characteristic. It is up to the faculty and/or supervisors to inquire and observe such a characteristic in students during practical classes in laboratories and in the clinical field while performing procedures. In the classroom, appropriate desks are required for left-handed students.

The teaching resources mentioned by participants of this study were grouped into audiovisual and other resources. Concerning audiovisual aids, there were five citations concerning a reading assistant; writing and books in Braille were mentioned 14 times; a sign language interpreter was cited 13 times, and an increase in the size of lettering during slideshows was mentioned nine times. Concerning other resources, the following were mentioned: tutoring and training of employees was mentioned four times; teacher training to monitor students with disabilities or impairments was mentioned three times; and monitoring of student teaching follow-up was mentioned six times. The suggestions are consistent with the actions that the Ministry of Education proposes to institutions to ensure that students with special needs are included in the courses⁽⁵⁻⁶⁾.

With the new curriculum proposal, starting in 2010 the central axis of the curriculum became nursing care in its different contexts, meanings and dimensions⁽¹⁰⁻¹¹⁾. It is noteworthy that the process of professional training in health, more specifically in nursing, requires the development of multi- and interdisciplinary academic actions based on Humanities and Ethics and with critical capacity for the perspective of comprehensiveness of care⁽¹¹⁻¹²⁾.

Although there are no physically disabled students in the current graduate program, the respondents showed that they had a broad knowledge of which architectural adaptations are necessary for a person with special needs to attend the institution, access, remain enrolled and complete a specific course. It is worth mentioning that, even if there is only a single student with a need for adaptations, curricular steps are required⁽¹³⁾ as well as adjustments to provide physical accessibility (Law no. 9.394/96, Art. 59, Decree No. 3.298/99, Article 29, I, II, III)⁽³⁻¹⁴⁾.

CONCLUSION

There are still few studies regarding inclusive education in higher education especially in health and nursing. This makes comparison and discussion of the results more difficult; conversely, it stimulates studies in these areas.

Institutions, as well as other educational settings, are responsible for the promotion of citizenship and the development of both hard and soft skills; in this manner, educational institutions can create opportunities that reflect diversity by recognizing its value and encouraging education for all.

In the present study, we found that among the 83 participating students there was a predominance of females from the age group between 18 and 22 years who were from São Paulo city and Greater São Paulo. Most of these students reported having studied predominantly at public schools throughout their school life.

Regarding the occurrence of changes or limits reported by the students, the majority reported astigmatism, hyperopia and myopia among other limitations or changes; one student had partial hearing loss. There were no reports of physical disability or reduced mobility.

The architectural barriers were the most frequently mentioned barriers by the students followed by educational barriers. It is important to emphasize that behavioral barriers were not mentioned by the respondents. Perhaps this result is because these students have not been a part of the same school environment with persons with disabilities. Universities are configured as a privileged space construction for the exchange of knowledge and experiences as well as socialization and the establishment of social support networks.

Given these results, inclusive education represents a challenge for higher education; thus, implementing educational activities with students and teachers is a matter of citizenship especially in a modernized, renovated, and integrated teaching system.

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