

## Nursing education: training evaluation by graduates, employers and teachers

*Educação em enfermagem: avaliação da formação por egressos, empregadores e docentes*  
*Educación en enfermería: evaluación de la formación por egresados, empleadores y docentes*

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### ABSTRACT

**Objective:** to support the assessment and the necessary changes in the curriculum of an undergraduate degree in Nursing. **Methods:** it is a descriptive study developed in two stages as an action research. In the first stage, the speeches of 19 graduates and 15 employers were interviewed and analyzed; in the second stage, five teachers participated in the focus group. For processing the data, the content analysis was adopted. **Results:** based on the assessment of the actors, an action plan was created with suggestions regarding the curriculum flexibility, content resizing, continuing education, practice enhancement, active methodologies and autonomy of the student. **Conclusion:** the participation of actors participants of the training process and performance of professional nurses in the evaluation of a curriculum pointed aspects to realignment and provided concrete benefits to improving the quality of undergraduate course curriculum, scenario of this study.

**Key words:** Nursing Education; Research in Nursing Education; Nursing Students; Curriculum; Graduate Programs in Nursing.

### RESUMO

**Objetivo:** subsidiar a avaliação e as transformações necessárias no currículo de um curso de graduação em Enfermagem. **Método:** estudo descritivo e exploratório desenvolvido em duas etapas na modalidade de pesquisa-ação. Na primeira etapa foram entrevistados e analisados os discursos de 19 egressos e 15 empregadores; na segunda, cinco docentes participaram do Grupo Focal. Para tratamento dos dados, adotou-se a Análise de Conteúdo. **Resultados:** com base na avaliação dos atores, elaborou-se um Plano de Ação com sugestões relativas à flexibilização curricular, redimensionamento de conteúdos, educação permanente, valorização da prática, metodologias ativas e autonomia do estudante. **Conclusão:** a participação de atores partícipes do processo de formação e de atuação de profissionais enfermeiros, na avaliação de um currículo, apontou aspectos passíveis de realinhamento e forneceu subsídios concretos para a melhoria da qualidade do currículo do curso de graduação, cenário deste estudo.

**Descritores:** Educação em Enfermagem; Pesquisa em Educação de Enfermagem; Estudantes de Enfermagem; Currículo; Programas de Graduação em Enfermagem.

### RESUMEN

**Objetivo:** subsidiar la evaluación y las transformaciones necesarias en el currículum de un curso de graduación en Enfermería. **Método:** estudio descriptivo y exploratorio desarrollado en dos etapas en la modalidad de investigación-acción. En la primera etapa fueron entrevistados y analizados los discursos de 19 egresados y 15 empleadores; en la segunda, cinco docentes participaron del Grupo Focal. Para tratamiento de los datos, se adoptó el Análisis de Contenido. **Resultados:** con base en la evaluación de los actores, se elaboró un Plano de Acción con sugerencias relativas a la flexibilización curricular, redimensionamiento de contenidos, educación permanente, valorización de la práctica, metodologías activas y autonomía del estudiante. **Conclusión:** la participación de actores partícipes del proceso de formación y de actuación de profesionales enfermeros, en la evaluación

de un currículum, mostró aspectos pasibles de realineamiento y forneció subsidios concretos para la mejoría da calidad del currículum del curso de graduación, escenario de este estudio.

**Palabras clave:** Educación en Enfermería; Investigación en Educación de Enfermería; Estudiantes de Enfermería; Currículum; Programas de Graduación en Enfermería.

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## INTRODUCTION

The evaluation of professional training is a study field that has been challenging researchers to identify changes that must be taken to improve the training process. Although the research on this issue developed with different focuses and objectives and different methodologies, they emphasize the importance of complementing the evaluation system, educational processes to graduates<sup>(1-3)</sup>.

On the other hand, the perceived gap between theory and practice, and between teaching and learning, has urged educators to develop research involving other actors who perform in this process<sup>(4-5)</sup>.

In this context, a more accurate assessment of the newly formed nurse's daily work is configured as a possible scenario to indicate adjustments that must be made in the training process of this professional category.

In this article, there will be the results of the second stage of research with graduates, employers and teachers with the outcome of the construction of an Action Plan presented in the coordination of a nursing course. The research was conducted in two stages. In the first stage, graduates and their employers were interviewed, and in the second stage a focus group and a seminar were conducted with the course teachers. Although the first stage results are not reported in this article, it is noteworthy that the testimony of these actors, after analysis, were the basis for the teaching reflection that culminated in the construction of the Action Plan described briefly in this study.

The general objective that guides the research reported in this article was "Supporting the evaluation and the changes, if necessary, in the curriculum of an undergraduate degree in Nursing".

## METHOD

This is a descriptive and exploratory study developed in the form of action research<sup>(6)</sup>, with a qualitative approach using Content Analysis as a theoretical reference for data analysis<sup>(7)</sup>.

Data collection was performed in two stages, the first from September 2009 to February 2011, with 19 graduates in 2007, in a Nursing course in a private university center in São Paulo (SP) - Southeast Region of Brazil, and with 15 employers of those graduates who agreed to participate in this study. These graduates were intentionally chosen by being part of the first group who experienced the proposed changes in the curriculum of the course in accordance with the National Curricular Guidelines (DCN).

In the second stage of data collection carried out in October and November 2011, after analysis of the material collected in the first stage, five components of the Structuring

Lecturer Core (NDE) of the Nursing Course were invited, the scenario of this study and one of them was the coordinator of the course. Also, the coordinators of Physical Therapy and Nutrition courses were invited by being participants in the revision of the integrated curriculum in place since 2010. Each teacher was coded with a number (Teacher 1, Teacher 2, etc.).

The first stage of data collection was performed through semi-structured interviews, scheduled for the place, date and time convenient to the graduates and employers, recorded on tape and later transcribed. The graduates were asked about the influence of the educational institution in decisions and professional actions they experience and about the strengths and difficulties of acting in daily work, assigned to the training process. They were also asked to make suggestions for the course curriculum enhancement. Employers were asked to discourse about the nurse's profile demanded by the institution and the profile assigned at the end of the course. They were also asked to contribute with suggestions for the best academic nursing education.

In the second stage of data collection, the technique of focus groups was adopted held in two meetings lasting two hours each, with debate topics, the two synthesis-reports from the analysis of interviews with graduates and employers. The contents of this debate were also recorded and transcribed for analysis.

For data analysis, both the content of the interviews with graduates and employers and the teaching debate afforded by the Focus Group, the thematic analysis technique was used, which involves three stages: pre-analysis, material exploration and interpretation of the contents<sup>(7)</sup>.

After processing and analysis of teachers' speeches, a seminar was held in March 2012, which included the participation of five components of the NDE and the nursing course coordinator. At this meeting, an Action Plan was built that later was presented to the academic board of the educational institution to support possible changes in the course curriculum.

The development of the study met the national and international standards of ethics in research involving human beings. Participants were heard after approval of the research by the Research Ethics Committee of the Nursing School at the University of São Paulo and the Informed Consent Form (TCLE).

## RESULTS

The Focus Group was attended by five teachers, three were NDE components of the course and the coordinators of graduate programs in physical therapy and nutrition. Of these, four were female and one male, with the predominant age group of 40-50 years old. Four group members were in the teaching profession at the educational institution, the scenario of this study, for more than ten years and one of them for less than

a year, all with a doctoral degree in the acting area. Of these, four are full-time teachers and one is part-time.

The analysis of the teachers' speeches produced in the debate promoted by the meetings of the Focus Group enabled the composition of four categories with their respective Units of Meaning (US). It is noteworthy that in these meetings two synthesis-reports were used containing the representation of graduates and employers, collected in the first stage of the research.

### **Category 1 - Profile of graduates and employers**

In this category, the profiles of graduates and employers were analyzed from the synthesis-reports presented to teachers during the focus group.

#### **US 1 - Manager committed to the "status quo"**

The US that referenced to the profile of managers shows a professional committed to the "status quo" and with previous training to the consolidation of the Unified Health System (SUS). Teachers felt the influence of this profile when considering that managers expressed a restricted point of view to the context of their area of expertise, to point out the skills required of graduates that encouraged technical skill.

*[...] Because everyone will look to their own reality, restricted to the institution where they are working, concerned about maintaining the "status quo". The formation of these managers is prior to the Unified Health System (SUS), mostly. They were formed in a logic that said, "I need to have a good technical training". (Teacher 5)*

#### **US 2 - Immature, influential and disciplined graduates**

Teachers relate the immaturity of students whose prevalent age group was 21-25 years old, by being influenced by the occupational choice, as mentioned in the speech:

*[...] Students have different reasons for doing nursing: because the mother wants, or because a sibling did it and so he decides to do it as well, or even under the influence of friends. (Teacher 1)*

On the other hand, the graduates were considered disciplined and respectful by teachers, when reporting the speech of nurses accompanying the Clinical Teaching.

*[...] The professional who receive trainees in the field says, "I like the student who comes from his college because they are more disciplined, they know to talk to the superior...". (Teacher 2)*

### **Category 2 - Curriculum Evaluation**

The curriculum experienced by the graduates, subjects in this study, was based on the traditional model, but give preference to clinical teaching in diverse contexts of practice, mainly relating to curriculum supervised practice.

#### **US 1 - Curriculum Framework**

The assessment by the graduates of the course curriculum was approved by one of the teachers during the focus group, expressing:

*I found it interesting when they (the graduates) say they should start training in Public Health from the beginning of the course, I think it will help a lot to us. It is the question of the curriculum structured by levels of complexity that this new array is already taking ... of primary care, goes to secondary level arriving at the tertiary level. (Teacher 1)*

#### **US 2 - Values formation**

The formation of values was recognized by employers as a positive differential observed in graduates. Teachers validated the choice to emphasize this aspect during graduation.

*[...] When they (employers) say "emphasis on the formation of values" is this question of respect for others, to delimit spaces... students are more respectful to the teacher and are encouraged to take such behavior for their workplace. (Teacher 2)*

The structure of the course focuses by a institutional philosophy, the focus of the ethical and humanistic dimensions, developing attitudes in student-oriented values for solidarity and appreciation of the human being.

### **Category 3 - Aspects intervening in the educational process**

This category highlighted aspects that interfere with nursing education that in most cases has not to consider in the planning of educational activities related to the curriculum adopted by the Education Institution.

#### **US 1 - Teaching and service interaction**

The early practice was a positive impact on the evaluation of the graduates, although some terms of the Clinical Training have been considered unfavorable. In the opinion of teachers, nurses of the care units receiving the students for Curricular Supervised Practice not always played the role of educator. This gap was considered by the teacher to mention that:

*The nurse who receives the student would have to work actively during the supervised practice, with the teacher accompanying the students. They should also follow the student in their development, supporting them and participating in the evaluation. They want the professional ready at the end of graduation but they want to be exempt from any responsibility for the education of the student. (Teacher 5)*

#### **US 2 - Complexity formation process**

Despite the work process of nurses being predominantly managerial, their actions should ensure quality care to clients and cannot be disregarded by those who plan and execute a teaching program. There is also an increasing variety of functions and tasks performed by nurses in their work continuously. Reflecting on this, one of the teachers says:

*[...] Yet thinking about the diversity of areas... what is the workload in each specific area that the graduates had to develop within graduation? It is very little! They have an initial experience of each area, but they do not have the experience of the professional experience of those already on the market. (Teacher 4)*

#### Category 4 - Suggestions for curriculum improvement

The teachers made suggestions during the reflective process promoted during the focus groups that was considered relevant for improving the course curriculum and consequently the nursing education process.

##### US 1 - Enlarge training beyond the technical and scientific competence

Based on the speech of one of the employers, teachers who participated in the focus group reinforced the idea that the formation of the professional nurse in the current context must go beyond the technical skills or even skills related to leadership and management.

*The employer talks about demand "of a professional with appropriate expertise, motivated to acquire new knowledge and develop skills to face changes with agility and assertive, creative, innovative decisions, adding economic value to the company and the social individual". In this speech employer points out the characteristics of how they should be trained. (Teacher 1)*

*[...] Training must promote the sense of mission in health, social and personal responsibility, which are aspects that graduates need to take to be inserted in the labor market. (Teacher 4)*

##### US 2 - Active Strategies Teaching

The use of active and innovative teaching methodologies can be an effective strategy to achieve better results in meaningful learning. During the reflective process, teachers felt challenged to take new pedagogical approaches for education. The following reported speeches show this challenge.

*If we remember that this matrix is from 2007 I think perhaps a minority of teachers used innovative methodologies. At the beginning of the matrix in 2007, it was still very difficult to change this awareness that there are more appropriate strategies... that there are new strategies that facilitate learning and teaching. (Teacher 3)*

*[...] The great challenge of education is to give the tools to the student to continue the training process. Because as Paulo Freire says, "training is the work of a lifetime, no one is educated and stops educating...". We are learning all the time. Using effective learning tools, this is the school function. (Teacher 1)*

##### US 3 - Teacher Training

The teachers have the responsibility for the pedagogical act, as well as the search for training for the competent exercise of this action. The commitment of the teachers to their learning motivates students to apply to the process of learning, as shown in the statements below.

*It must start with teacher training, working pedagogical issue, optimizing the classes for the student to be more involved. (Teacher 2)*

*The school is in a process of transformation, but we still have our teachers with the old paradigms, and it is not easy*

*to promote transformation in the institution without investing in teachers. (Teacher 5)*

#### Action plan

Described briefly, as a result, the Action Plan was constructed based on the analysis of the material collected during the reflective process in the Focus Group. In that plan, teachers listed six proposals to be implemented in the course curriculum aimed at real improvements in the nursing education process.

The first proposal was to promote the "curriculum flexibility" allowing the entry of students in any curriculum module and providing them choose the subjects to be attended in each semester of the course. This aspect should concurrently offer the modules of the first and second halves, with content targeted to the development of general skills common to Nursing, Physical Therapy, and Nutrition, and offer elective modules offered in classroom and distance learning mode.

The "redimension of content" was also included or suggested to equalize the distribution of large areas of content, based on the competencies aimed at graduates' profile defined in the Pedagogical Project of the Course. It should ensure the presence and visibility of cross-cutting issues, such as patient safety, ethics, humanization, administration and leadership. These themes are considered saps that nourish others. The contents that support the clinical reasoning of the student should be rethought.

The "permanent education" should be conceptually incorporated into the training process, to widen the dialogue with managers of health services, through regular meetings to identify gaps, meet demands and strengthen social bonds. The research with graduates should be formalized as a mechanism to foster academic growth. They should also organize training programs involving the active professionals and students, conducting planning continuous updates, based on the everyday problems of health services, considering the social and political context.

The "value of practice" was proposed aimed at developing joint actions with network services and encouraging the implementation of projects in new practice scenarios such as schools, day care centers and churches. It should also enable the payment of the hours dedicated to projects of the workload expected in the course curriculum. And also, apply theoretical concepts in simulated scenarios of practice.

The adoption of "active methodologies" is aimed at teacher training with theoretical and practical approach using strategies that strengthen resources to experience the potential of these methodologies; to optimize the use of virtual space, promoting interactivity and encouraging initiatives and projects of the students; the implementation of the use of portfolios as a pedagogical tool; and the adoption of formative assessment as a teaching strategy that emphasizes the role of the actors involved.

To achieve the "autonomy of the student", it is suggested to promote the formation of small study groups with mentoring to work interdisciplinary projects, encouraging extracurricular activities for social purposes, for example, volunteer work and participation in "health fairs" promoted by the educational institution. Also, it must be demystified the belief that the nurse does not make mistakes, leading the student to reflect on the failure of the procedural way and working to propose problem

situations, encouraging students to look for relevant content for the solution of the problems that must be addressed.

## DISCUSSION

Concerning the limits of the method chosen to guide the behavior of this study, it is recorded that the perspective of patients of health services could have also been included, by receiving the care provided, pointing more properly the skills that should be prioritized in professional nursing education. However, this research added knowledge considered essential to the education of nurses, listed in the proposed Action Plan.

Concerning to curricular flexibility, the study participants agree that it is a challenge to be faced by educators with determination, as it enables students to become more involved, and new pathways for training carried out by its main actor. When the students are responsible for conducting their academic journey, it gives uniqueness to their training process, thus generating a significant learning. One of the ways emphasize is the distance education, using information and communication technologies. However, it has been observed inability of teachers use these tools<sup>(8-9)</sup>.

To redimension the contents, graduates have suggested an increased workload for the development of managerial and leadership skills, while employers argued that they preferred receiving a technically unprepared professional, but demonstrating ethical and political skills informed by humanistic values. In a study that investigated the teaching of humanization in the disciplines of the nursing curricula of São Paulo (Brazil), the analysis of the 13 schools curriculum led to the observation of ambiguous intentionality in descriptive content of 588 courses offered, noting that only 3% showed conceptual coherence related to the humanization<sup>(10)</sup>.

It is noteworthy that the concept of humanization adopted was the "encounter between the subject and the act of caring" meaning the meeting of subjectivities, highlighting that the social role of the nurse performs in care, but this role cannot be mistaken in their subjectivity at risk that this activity is not humanized<sup>(10)</sup>.

In a study that analyzed the knowledge, skills and attitudes of graduates for the work process management, relational and conflict management aspects were identified as the main gap. It was suggested then to provide learning situations that stimulate the student to seek knowledge to support their professional practice<sup>(1)</sup>.

Permanent education that is favored in teaching and service interaction and enables the tailoring teaching to real conditions found in the workplace, is another factor that should be considered in training of the future nurse. For permanent education to be effective, it becomes necessary investments and commitment of the two sectors, teaching and service, which must be established if the actors consider the human being in their entirety in inter-subjective interactions<sup>(1,5)</sup>.

In the curriculum experienced by graduates of this study, the practice in primary care and hospitals was inserted after the third semester of the course to promote meaningful learning. It is noteworthy that, beyond this initial practice, graduates of this research experienced the Supervised Practice in

the last two semesters of the course. The performance of the graduates positively impacted the evaluation of employers' managers. However, according to the teachers, based on the testimony of graduates, nurses' service units do not always play the role of educator expected.

In literature review about the Supervised Practice, it was identified that nurses experienced feelings of discomfort when confronted with students and teachers who sometimes questioned the doing and knowledge of these professionals. Based on the studies analyzed, the Curricular Supervised Practice brings mutual learning for those involved as an advantage, besides being a living and dynamic laboratory that stage promotes student interaction with members of the health team, leading them to develop responsibility, ethics, leadership, communication skills and decision-making<sup>(11)</sup>.

On the other hand, for the student reaches the Curricular Supervised Practice enabled to carry out the required activities, it is recommended that he develops the practice by using simulators as a resource for learning, since the school has a duty to promote full compliance with the human being, providing opportunities simulated clinical experiences for curriculum enrichment<sup>(12)</sup>.

The use of active and innovative teaching methodologies, such as questioning, are effective strategies that can generate meaningful learning. The real scenario to exercise care is the main space for ethics training, and contribute to the development of clinical reasoning<sup>(4,13-14)</sup>.

The planning of a particular subject using the virtual environment is another strategy worth mentioning as it provides the construction of organized, objective, clear, detailed and rich topics with respect to the proposed theme, but its application requires more time for planning, prior preparation with a technical programmer and adjustments of this technological resource to the educational context of nursing. A research held in 2011 found that, in Brazil, only 35 graduate programs in Nursing offered courses related to IT in their curriculum<sup>(15-16)</sup>.

Regarding the construction of student autonomy, teachers participating in this study, acknowledged difficulties in establishing safe limits for the patient when the student starts care practice. However, they proposed the application of various methodological resources and the establishment of social networks that could provide to students, freedom to act with commitment and responsibility despite sometimes feel insecure during this process. Another research suggests the neo-systemic curricular metatheory that seeks to bring new perspectives to work for the autonomy of the student, the significant, contextualized and globalized teaching of nurses<sup>(17-18)</sup>.

## FINAL CONSIDERATIONS

The evaluation of the educational process involving graduates, employers and teachers enabled to reflect on the specifics of nursing education in the current context as well as realign the curriculum to the demands identified by participants. The Action Plan built collectively, containing proposed changes considered essential, provided concrete benefits to improve the course curriculum, scenario of this study.

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