

Accessibility and content of electronic information about Specialization Courses in Nursing Administration

ACESSIBILIDADE E CONTEÚDO DE INFORMAÇÃO ELETRÔNICA SOBRE CURSOS DE ESPECIALIZAÇÃO EM ADMINISTRAÇÃO EM ENFERMAGEM

ACCESIBILIDAD Y CONTENIDO DE INFORMACIÓN ELECTRÓNICA SOBRE CURSOS DE ESPECIALIZACIÓN EN ADMINISTRACIÓN DE ENFERMERÍA

Abel Silva de Meneses¹, Maria Cristina Sanna²

ABSTRACT

The objective of this descriptive study was to analyze the accessibility and the content of the information about Specialization Courses in Nursing Administration available on the websites of federal universities in Brazil. From September 2008 to April 2009, evaluations were performed on a total 19 courses that were available on the websites of the universities, regarding the level of access to information and the design of the curricula, in terms of the structure of the knowledge about Nursing Administration: Ideological and Theoretical Bases, Intervention Methods, and Resource Administration Practices. Results showed that, though we are currently in the era of the knowledge society, the electronic access to the teaching programs remain below the expectations in terms of the concepts of information and browsability. In terms of the design of the courses, it was observed that most are many times longer than the what's legally established as a minimum load of hours, and that there has been an appreciation towards studying the Ideological and Theoretical Bases in detriment to the Practices of Human Resources.

DESCRIPTORS

Education, nursing
Specialization
Health Services Administration

RESUMO

Este estudo descritivo objetivou analisar a acessibilidade e o conteúdo da informação sobre Cursos de Especialização em Administração em Enfermagem disponível em sites de universidades federais brasileiras. De setembro de 2008 a abril de 2009, foram avaliados 19 cursos disponíveis nos sites das universidades federais brasileiras, segundo o nível de acesso à informação e o desenho curricular, frente à estrutura do conhecimento sobre Administração em Enfermagem: Bases Ideológicas e Teóricas, Métodos de Intervenção e Práticas de Administração de Recursos. Os resultados revelaram que, em plena era da sociedade do conhecimento, a acessibilidade por meio eletrônico aos programas de ensino ainda está aquém do que se espera dos conceitos de informação e navegabilidade. No tocante ao desenho dos cursos, percebeu-se que a maioria tem superado muito a carga horária mínima legal, e que está havendo valorização do estudo das Bases Ideológicas e Teóricas em detrimento das Práticas de Administração de Recursos.

DESCRIPTORIOS

Educação em enfermagem
Especialização
Administração de Serviços de Saúde

RESUMEN

Estudio descriptivo que objetivó analizar accesibilidad y contenidos de información sobre Cursos de Especialización en Administración de Enfermería disponibles en sitios de universidades federales brasileñas. Entre setiembre 2008 y abril 2009, fueron evaluados 19 cursos disponibles en dichos sitios según el nivel de acceso a la información y diseño curricular, frente a la estructura de conocimiento sobre Administración en Enfermería: Bases Ideológicas y Teóricas, Métodos de Intervención y Prácticas de Administración de Recursos. Los resultados demostraron que en plena era de la sociedad del conocimiento, la accesibilidad por medio electrónico a los programas de enseñanza aún está por debajo de lo esperado en los conceptos de información y navegabilidad. En referencia al diseño de los cursos, se percibió que la mayoría supera holgadamente la carga horaria mínima legal y que está valorizándose el estudio de las Bases Ideológicas y Teóricas en detrimento de las Prácticas de Administración de Recursos.

DESCRIPTORES

Educación en enfermería
Especialización
Administración de los Servicios de Salud

¹RN. Supervisor of Family Health Strategy Units for the Monte Azul Association. Specialist in Management of Nursing Services by the Federal University of São Paulo. Member of the Studies and Research in Health Administration and Management of Nursing Group. São Paulo, SP, Brazil. abel_enf@yahoo.com.br
²PhD in Nursing. Accredited Advisor at the Federal University of São Paulo. Member of the Studies and Research in Health Administration and Management of Nursing Group. São Paulo, SP, Brazil. mcsanna@uol.com.br

INTRODUÇÃO

Educators and professional associations in Brazilian nursing have promoted debate to incite people to re-think educational tasks in this field of knowledge, signaling changes in the process of educating nurses and proposing that individuals reflect upon the foundations that compose the profession: teaching, research, administration, care and political participation⁽¹⁾.

In this quest, former undergraduate students have found opportunities to improve themselves in post degree specialization programs, not only to acquire continuing education, but also as a way to overcome difficulties faced in the job market, among which are managerial issues⁽²⁾.

Educational agencies have already positioned themselves in an attempt to minimize these difficulties, raising the minimal workload hours of undergraduate programs and stressing the importance of addressing managerial functions in the education of nurses⁽³⁾; however, changes are recent and their effects are not visible yet. Additionally, knowledge of nursing administration is continually renewed and cannot be integrally addressed in an undergraduate program, which reinforces the need to prepare nurses in post degree specialization programs in the development of advanced managerial functions.

Nevertheless, for the specialization programs to become a modality of continuing education that preserves quality, in addition to versatility and rapidity in responding to the manifested needs of knowledge, it is essential that higher education institutions, professional associations and especially agencies that regulate higher education, continue to discuss the best conditions for specialization programs to generate wealth for the country⁽⁴⁾. It is also possible that changes in the structure and organization of undergraduate programs, currently a matter of discussion in Brazilian society, also affect specialization programs.

The supply of specialization programs should comply with specific laws⁽⁵⁾ and in the case of autonomous universities, these programs are more easily proposed and implemented.

The Brazilian public system of higher education has been required to give its contribution to the management of the Unified Health System (SUS) through the development of human resources in health⁽³⁾, which raises a question about the level of access and context of information on the specialization programs in nursing administration available in Brazilian federal universities.

This information and the content of these programs should be known so that people have an idea of what has been taught on nursing administration in specialization

programs, since federal universities serve as a benchmark for the remaining higher education institutions.

Authors⁽⁶⁾ who evaluate the management of nursing care in terms of its complexity indicate that nurses have increased their managerial skills because they see the organization of care as an interactive system in which nursing actions are also directed to other objects of work in addition to care *per se*, which is reason enough to investigate how nursing administration has been taught.

OBJECTIVES

To analyze the accessibility and content of information concerning specialization programs in nursing administration available in the websites of Brazilian federal universities.

METHOD

...changes are recent and their effects are not visible yet. Additionally, knowledge of nursing administration is continually renewed and cannot be integrally addressed in an undergraduate program, which reinforces the need to prepare nurses in post degree specialization programs...

This is a descriptive study that analyzes information exclusively obtained from websites of Brazilian federal universities concerning specialization programs in nursing administration. The database of the *Anísio Teixeira* Institute (INEP)⁽⁷⁾ was consulted to identify the websites of federal universities, which revealed there are 19 specialization programs in nursing administration spread over the national territory.

Each website was visited more than once per month between September 2008 and April 2009 when the accessibility and navigability of each was evaluated according to criteria previously tested⁽⁸⁾.

Accessibility and navigability were scored from one to ten, while access to the name of the program already computed one point. For that, the following variables were listed: name of the program, workload, number of slots, requirements, selection criteria, curricular organization, course syllabi, course workload, duration, cost of the program, degrees of the faculty members, and name and electronic address of the program's coordinator. Nonexistent access to these variables or lack of information was scored 1 and access to available information scored 2. Interactivity variables (e-mail for correspondence) and the answer's level of satisfaction (when the question was sent by e-mail) scored 1 when access or information was nonexistent, scored 2 when there was difficult/partial access or information, and scored 3 for easy access to all information.

The list of variables was distributed via a Microsoft® Excel spreadsheet and was scored according to the information collected from the websites and classified according to the already described criteria. The sum and average score was based on this spreadsheet. The programs that scored 6 or above were considered satisfactory.

The content of each program curriculum was separately compiled in a Microsoft® Word file and classified according to theoretical proposition of Sanna⁽⁹⁾, for the structure of knowledge of Nursing Administration: A) Theoretical and Ideological Bases; B) Intervention Methods; C) Resource Management Practices. Then, the distribution of simple and relative frequency, average, and variability were computed for each.

The project was not submitted to the Research Ethics Committee because it does not include experimentation with human beings, however, the names of the institutions and their respective programs were kept confidential and the letters from A to S were used to designate the programs according to the sequence in which these were found.

RESULTS AND DISCUSSION

Accessibility and navigability

Accessibility in the digital environment consists of making available to users all the information to which they are

entitled and allowing them to use it with autonomy. Usability has been intuitively understood as how easy (accessible) a service is for a user who is not yet familiar with it⁽¹⁰⁾. In this sense, navigability in a website is understood in terms of the usability it displays⁽¹⁰⁾.

Figure 1 represents the level of access to information available to users when the branch directed to programs was accessed from the websites of the universities. In this figure, the classification of programs is represented by the intersection of the axes *accessibility* and *usability/navigability* under an ascendant line segment that shows the level of access to information. Evaluation of access is comprised of the recommendations of several authors⁽⁸⁾.

The digital environment enables one to acquire a very broad understanding of information, which can be exhibited in all its richness and presented in many forms; however, many barriers hindered or even prevented access to information, as will be shown. In this context, accessibility to information depends to a large extent on the website's usability⁽¹¹⁾.

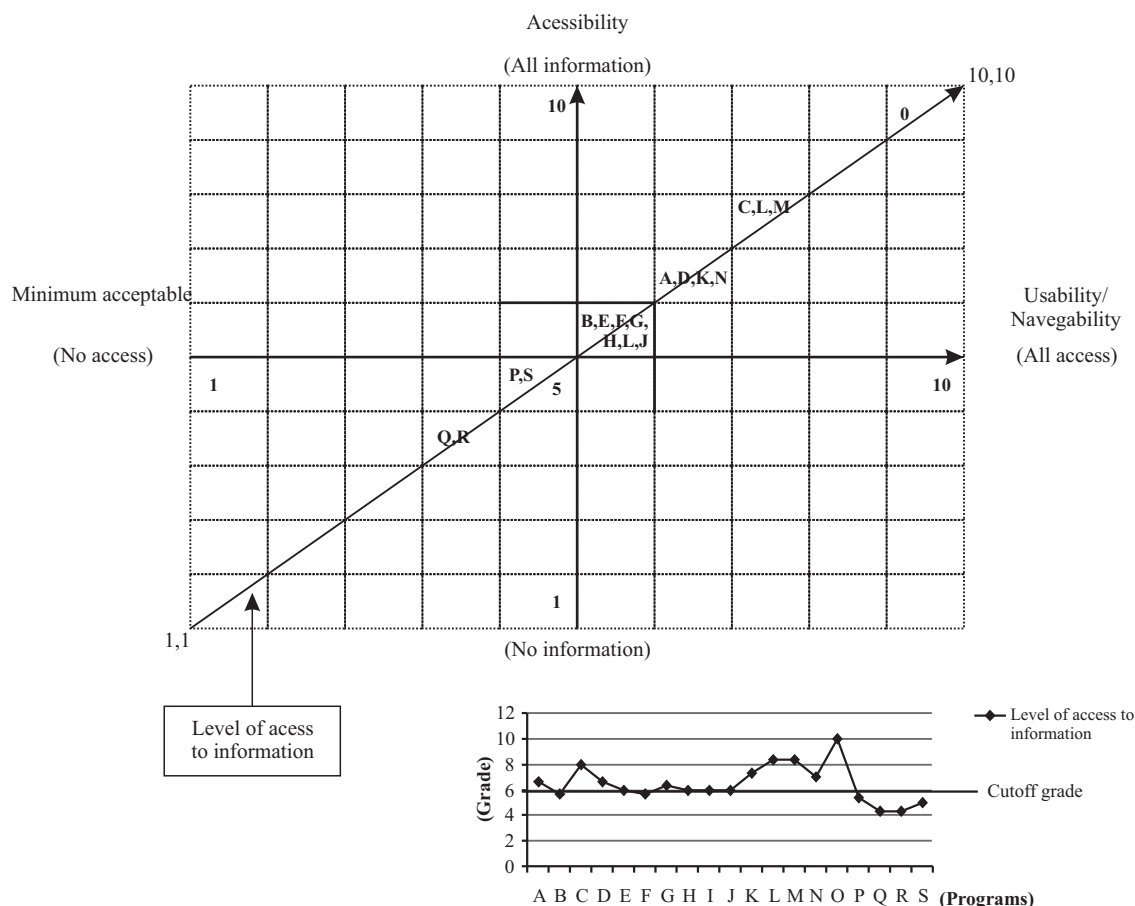


Figure 1 - Provision of post degree specialization programs in Brazilian federal universities in the nursing administration field according to website accessibility and navigability. São Paulo, Brazil - September 2008 to April 2009

In relation to the level of access to information, 11 (57.8%) of the 19 evaluated programs scored below 6. Of these, four ((21.0% of the total) scored below 5 because they either did

not inform • the program's workload and electronic address, their links had problems of hypertextuality (they were corrupted) or did not respond to the question sent by email

(lack of interactivity). Three programs had accessibility problems at the time of registration: the program's website was accessible but then after five days it was not working and exhibited the message *broken link*.

Only eight (42.2%) programs scored above the minimum, while four of them scored around 6. Three programs (15.7%) scored 8 and only one program (5.2%) scored 10 because it made full information available and provided full access to content and information was also extremely easy to access. The panoramic series at the bottom of Figure 1 shows the performance of each website.

The four (21.0%) programs that scored 8 or above were those that permitted access to syllabi and access to information was somewhat easy. This facilitated access is important because there is currently a tendency to search for information through the Internet and a large share of those aspiring to attend a specialization program and who already work or are newly graduated need to know whether these programs will actually add significant training/content to their experience so they will be better prepared to face an increasingly competitive job market⁽²⁾.

Most of the websites displayed hypertextuality problems and some required multiple minutes to access the program's webpage. Each website was accessed more than once per month and some required a large number of "clicks" which made it difficult to remember the entire path. In some cases, finding the program's webpage from the

university's website was like navigating a *maze* because each website had a different rationale, and in some, the logic of organization was not evident.

All these factors harmed both the principle of *cognitive ergonomics*⁽¹⁰⁾, aimed to optimize/simplify the characteristics of technical devices adopting as reference the cognitive processes of a certain population, and also the ergonomic criterion *user's control*⁽¹⁰⁾ that determines that digital products/services should be devised in such a way that users have maximum possible control over the interaction.

Given this, it is noticeable that usability is directly proportional to accessibility, that is, the easier to navigate a website (service) the more accessible it is⁽¹⁰⁾. In other words, accessibility and usability need to be understood as channels that approximate users to the institution and for that interfaces need to be available to transmit the identity of the program in a dynamic and transparent way, a goal not achieved by most of the websites investigated.

The programs' profiles

Post degree specialization programs are intended for both recent graduates and professionals already active in the job market. These programs have a continuing education nature and are open to individuals with at least a bachelor's degree who meet the requirements of the teaching institution⁽⁵⁾. Figure 2 presents an overview of the workload of the evaluated programs.

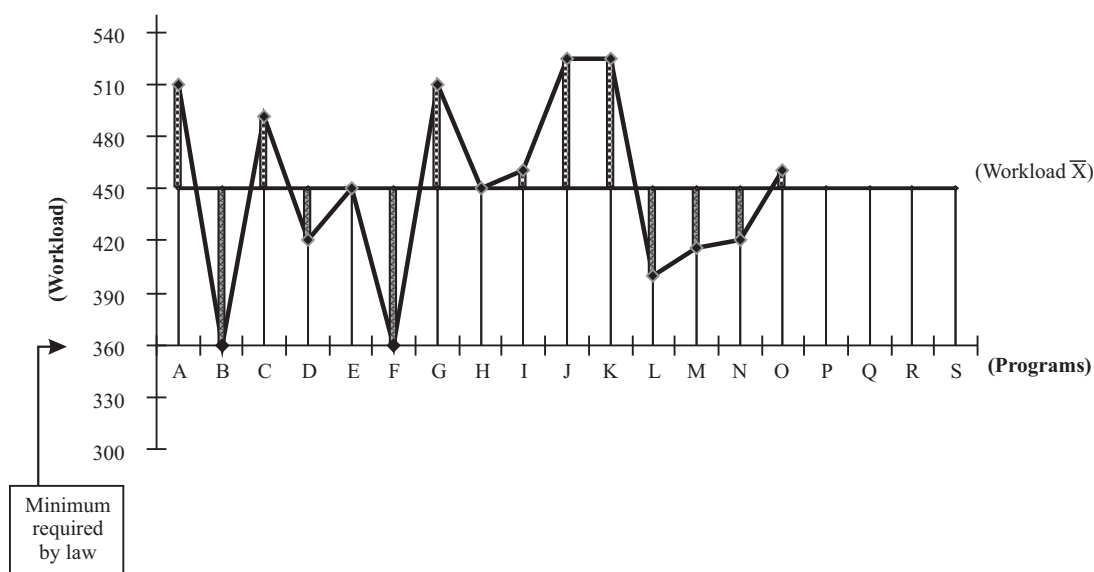


Figure 2 - Provision of post degree specialization programs in Brazilian federal universities in the nursing administration field according to program workload. São Paulo, Brazil - September 2008 to April 2009

As shown by figure 2, four (21.0%) of the 19 evaluated programs did not disclose course workload and 15 (79.0%) did. It would be naïve to believe this is not an essential factor in the choice of a specialization program. The current conception of teaching quality is still strongly influenced by the positivist paradigm of science, which crystal-

lized an objective interpretation for something subjective in which *the quality of the program is measured by how heavy and lengthy the course workload is, hence, the more hours/classes students attend the better is their education*⁽¹²⁾. Even though this is arguable, it is important to stress that for pragmatic reasons, candidates need to know the

program's duration to consider availability of time and other practical dimensions.

Considering quality as a set of attributes inherent to a product and which differentiates one product among similar ones by the adjectives equal, better or worse than a given standard⁽¹³⁾ and considering that the minimum workload of 360 hours⁽⁵⁾, which is required by law, was exceeded by 13 (86.6%) programs that displayed related information, we wonder the reasons and repercussions of such a variation. What would explain such diversity? Local needs? Would it be intentional so that a given program would stand out among the remaining programs in the same institution or from other institutions? None of the studied programs mentioned practical activities, so this cannot be used as an explanation for heavier workloads.

The average workload was 450 hours while six (40.0%) programs were below the average, two (13.3%) were around the average and seven (46.7%) above average. Two programs (J and K) offered the heaviest workloads (525 hours) and only two offered only the minimum hours required by law.

This evidence signals curricular changes related to the inclusion of new courses to meet current demands. Would that be the reason? The response to such demands however may be more related to innovative teaching strategies than to increased workload⁽¹²⁾. Therefore, devising new curriculum alternatives requires much more than changing the program's design or even introducing new content⁽¹²⁾ because the product in the educational process also depends on the object's volitional action, that is, on the motivation of students themselves. For this motivation to occur, learning situations need to be created in such a way that they enable the development of a critical and investigative spirit to transform social reality, in which posing questions is more than merely preparing answers^(2,13). These attributes are difficult to control when evaluating the quality of teaching, which ends up providing feedback for the traditional conception of curriculum development, in which content and objectives are overvalued to the detriment of the teaching/learning process *per se*.

Adopting intervals of 50 hours in relation to the average workload, we perceive that of the 13 (86.6%) programs that exceeded the minimum workload, the one designed with fewer hours had 400 hours, very close to the workload of 360 hours.

When these data were compared with content taught, classified according to the structure of knowledge on Nursing Administration⁽⁹⁾, the need to develop teaching situations with more practical meaning was observed. This is needed to concretize skills as an educational product given that there is undue emphasis on theoretical aspects. Perhaps this is the reason that many scholars in nursing education complain that the teaching-learning process is still too focused on traditional approaches, jeopardizing the development of skills^(2,14-15).

Some authors⁽¹⁵⁾ went further and pointed out that a traditional view of nursing management is prevalent and indirectly declared the inadequacy of these programs for enabling students to acquire managerial skills.

Even though the knowledge-culture requires from workers a growing level of education and constant updating, the purpose of these specialization programs cannot be restricted to merely training individuals to occupy a given job function, rather the incorporation of some meaningful cultural capital should be aspired to in order to educate citizens capable of adapting to changes and face new challenges, or even view skills as consumer goods. Programs with much content, taught in a traditional way, go in the opposite direction.

Teaching Nursing Education

Aiming to understand what has been taught on this subject and having information on the programs' curricula, curriculum content was classified according to the knowledge structure of nursing administration⁽⁹⁾ into three large groups: Ideological and Theoretical Foundations, Intervention Methods, and Resource Management Practices. The distribution of all studied programs is presented in Figure 3.

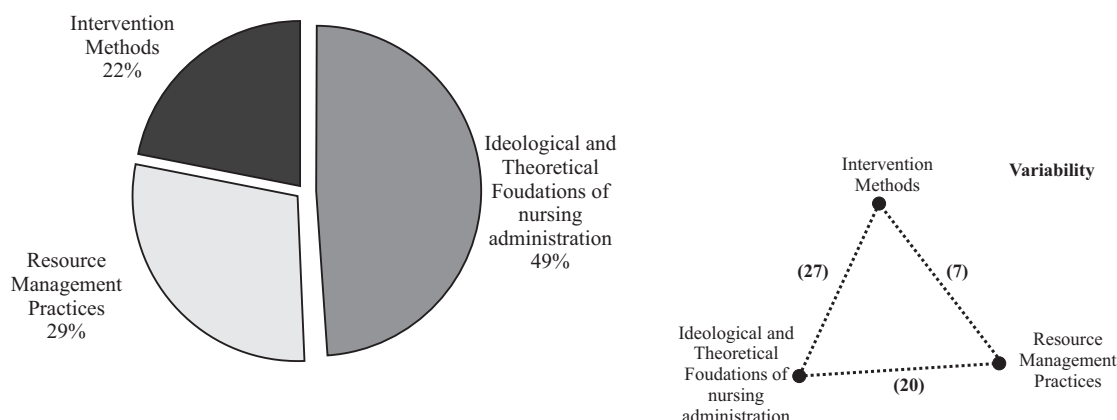


Figure 3 - Provision of post degree specialization programs in Brazilian federal universities in the nursing administration field according to the knowledge structure of nursing administration. São Paulo, Brazil - September 2008 to April 2009

In relation to the division of curriculum content, the distribution was: Ideological and Theoretical Foundations of nursing administration 49%, Resource Management Practices 29%, and Intervention Methods 22%.

From this perspective, the program that least valued Ideological and Theoretical Foundations among the studied programs dedicated 40% of its curriculum to this subject. The program that most valued this subject dedicated 65.2% of the curriculum to it. Variability was 35.2% and the average was 49%. This means that most of the schools used about half of their curricula to teach Ideological and Theoretical Foundations of nursing administration. Are these schools complementing knowledge the individuals acquired during undergraduate education or are they compensating for failures at this level of education?

Intervention Methods presented the lowest variability (11.1%). The programs that most and least valued this subject in the knowledge structure dedicated 28.5% and 17.4%, respectively of their workload to this subject. The larger number seems to be appropriate to a balanced division of the three large items of knowledge.

The program that least valued the subject Resource Management Practices dedicated 17.4% of its workload to the topic, while the one that most valued it used 46.6%, a variability of 29.3%. The interesting thing is that the programs that dedicated most of their curricula to Ideological and Theoretical Foundations were those that least valued Resource Management Practices and *vice versa*. The variability between these two components of the structure of knowledge of nursing administration was 20 percentage points, and the average for Resource Management Practices was 29%.

Considering that the education at this level of nursing administration should impact the work process of nurses and enable them to problematize the context of health services in which they are working and seek creative solutions, it is intriguing that this component of the structure of nursing administration is undervalued in the workload of the studied programs.

The importance of knowing theories is in the power to provide tools to health professionals and managers to understand and solve complex problems faced in the daily routine of different work processes to transform situations, since health facilities are strongly influenced by the Taylorist/Fordist models of classical administration and the bureaucratic model, which no longer meet current needs.

From this perspective, it is important to the manager to identify the phenomena that determine the use of certain theories, know that their application can be improved or even employ others that better explain/represent phenomena currently observed in health facilities. This interpretation is important under the decision-making point of view,

since it is only possible to manage what is known and can be problematized⁽¹⁴⁻¹⁵⁾.

We also perceived that the content included in the subject Ideological and Theoretical Foundations of nursing administration in the studied programs focuses on health policies, though current discussions seem to reaffirm the governmental policy or either debate its bases, which makes us question why there is so much focus on this component of the knowledge structure.

Additionally, various authors⁽¹⁴⁻¹⁵⁾ critique the ideological, philosophical and theoretical predominance in teaching approaches both in undergraduate and specialization programs to the detriment of intervention practices more appropriate to reality. Contemporary approaches are more incisively studied only in graduate programs.

CONCLUSION

The results revealed that in the era of a knowledge-culture, access to basic information through electronic means concerning educational programs is still far short from what is expected when one takes into account concepts of accessibility. When navigability is considered from the perspective of usability, many barriers were observed in access to information such as hypertextuality problems, lack of interactivity, and non-operating tools, among others.

In terms of the program design that makes information available, most programs offer many more hours than the required by law, probably based on paradigms that indicate that the quality of a program is measured by the course workload. Coupled with this is the inclusion of new courses aiming to meet the demands of society for knowledge, though these may be met by changing teaching approaches instead of increasing the workload per se.

When establishing an interface between the programs and the structure of knowledge of nursing administration, the study indicated that the subject Ideological and Theoretical Foundations of administration is emphasized to the detriment of Resource Management Practices.

It is important to deepen issues concerning Resource Management Practices as a starting point to design educational programs the approaches of which involve learning situations that awake in nurses the exercise of volitional activities and the development of skills that ensure the full exercise of the managerial work process in nursing.

The number of specialization programs in nursing administration announced in the websites of Brazilian federal universities is very low considering the number of existent campuses, which makes us to think that further studies may be triggered by this study, which can serve as a start point for researchers in the field.

REFERENCES

1. Galleguillos TGB, Oliveira MAC. A gênese e o desenvolvimento histórico do ensino de enfermagem no Brasil. *Rev Esc Enferm USP*. 2001;35(1):80-7.
2. Saupe R, Geib LTC. O processo de construção dos projetos políticos pedagógicos na enfermagem. *Rev Eletron Enferm* [Internet]. 2001 [citado 2009 jan. 15];3(2). Disponível em: <http://www.revistas.ufg.br/index.php/fen/article/viewArticle/723/783>
3. Brasil. Ministério da Educação. Conselho Nacional de Educação. Câmara de Educação Superior. Parecer n. 213, de 9 de outubro de 2008. Dispõe sobre carga horária mínima e procedimentos relativos à integralização dos cursos de graduação em Biomedicina, Ciências Biológicas, Educação Física, Enfermagem, Farmácia, Fisioterapia, Fonoaudiologia, Nutrição e Terapia Ocupacional, bacharelados, na modalidade presencial [Internet]. Brasília; 2008 [citado 2009 maio 15]. Disponível em: http://portal.mec.gov.br/cne/arquivos/pdf/2008/pces213_08.pdf
4. Pilati O. Especialização: falácia ou conhecimento aprofundado. *Rev Bras Pós-Graduação*. 2006;3(5):7-23.
5. Brasil. Ministério da Educação. Conselho Nacional de Educação. Câmara de Educação Superior. Resolução n.1, de 8 de julho de 2007. Estabelece normas para o funcionamento de cursos de pós-graduação lato sensu, em nível de especialização [Internet]. Brasília; 2007 [citado 2009 maio 15]. Disponível em: http://portal.mec.gov.br/cne/arquivos/pdf/rces001_07.pdf
6. Erdmann AL, Backes DS, Minuzzi H. Care management in nursing under the complexity view. *Online Braz J Nurs* [Internet]. 2008 [cited 2009 Apr 15];7(1). Available from: <http://www.objnursing.uff.br/index.php/nursing/article/view/j.1676-4285.2008.1033>
7. Instituto Nacional de Estudos e Pesquisas Educacionais (INEP). Cadastro das Instituições de Educação Superior [Internet]. [citado 2009 ago. 25]. Disponível em: <http://www.educacao.superior.inep.gov.br/>
8. Silva EOB, Ramponi KP, Sanna MC. Avaliação de sites sobre a história da enfermagem brasileira. *Esc Anna Nery Rev Enferm*. 2005;9(3):335-9.
9. Sanna MC. A estrutura do conhecimento sobre administração em enfermagem. *Rev Bras Enferm*. 2007;60(3):336-8.
10. Torres EF, Mazzoni AA. Conteúdos digitais multimídia: o foco na usabilidade e acessibilidade. *Cienc Inf*. 2004;33(2):152-60.
11. Torres EF, Mazzoni AA, Alves JBM. A acessibilidade à informação no espaço digital. *Cienc Inf*. 2002;31(3): 83-91.
12. Cunha MI. Paradigmas científicos e propostas curriculares. *Interface Comun Saúde Educ*. 1998;2(2):197-204.
13. Davok DF. Qualidade em educação. *Rev Avaliação*. 2007;12(3):505-13.
14. Matos E, Pires D. Teorias administrativas e organização do trabalho: de Taylor aos dias atuais, influências no setor saúde e na enfermagem. *Texto Contexto Enferm*. 2006;15(3):508-14.
15. Jorge MSB, Freitas CHA, Nóbrega MFB, Queiroz MVO. Gerenciamento em enfermagem: um olhar crítico sobre o conhecimento produzido em periódicos brasileiros (2000-2004). *Rev Bras Enferm*. 2007;60(1):81-6.