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IMPLICATIONS OF THE INTRODUCTION OF COMPUTING IN THE NURSING MAJOR PROGRAM AND HEALTHCARE MANAGEMENT

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ABSTRACT

To evaluate the integration of computer science in nursing degree courses of the northeastern region and thus bring reflections on the previous preparation of nurses and health management. This is an exploratory descriptive research, data collection was initiated through the system e- MEC, online resource provided by the education ministry. We analyzed a total of 217 institutions, where only 58 have computer- related discipline. As for the period in which the discipline is provided by educational institutions, were listed the following categories: disciplines offered at the beginning of the course; courses offered in other periods in the curriculum; courses offered as electives; disciplines offered free period discriminated.

Keywords: Nursing Informatics; Education Higher; Health Management.

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INTRODUCTION

Health institutions show increasingly need to use technology to the record of the care process, planning of actions on health and management. Therefore, the adoption of technologies has become a challenge, considering the adaptive process that front way installs these new devices[1]. Within this framework, a so-called cycle of technological life cycle is established. Its onset occurs in the perception of need, seeking to fulfill this requirement, adding this step to the development of technological knowledge. This process tends to be slow and susceptible to approvals and claims, moreover, training and mastery of professionals, it is indispensable[1].

Technological innovations in health, are a reality in this academic setting, care and management. The application of technological resources in the academic and professional development aimed at offering more qualified to the labor market professionals, resulting in optimized management and better qualification of prestados services[2].

In nursing, vocational training should address this technological emphasis, it is necessary to take into account that nurses make up a significant portion of professionals working in health services, which requires currently full control of these resources. In the offices where the nursing acts, management within their variables is present in administrative sectors, care and teaching / research. Therefore, the requirements of performance of this professional in the field of work requiring high performance that contribute to the achievement of organizational goals in services[3].

Inherent in nursing the need for accurate information in real time, so rooted in this reality, nursing informatics emerges from facilitating manages to communication, which benefits the multiple workflow profissionals[4].

Computerized systems, which first arrived in the administrative area, today permeates many sectors. From this perspective, this evolution has reached an important document that stores all the information related to the patient, the medical record. This artifact is essential for the development of administrative activities of any health facility for care to patients and also to subsidize research. With the emergence of electronic medical records, the activities related to this document have become more efficient and organized[4].

Within the perspective of computer science rise of health implications and the professional preparation, the present study aims to evaluate the information of the insertion in the northeastern region of the nursing undergraduate courses and therefore bring reflections on the previous preparation of nurses for the use of these technological innovations, and how the interaction of these elements reflect in the management of various sectors of health in the country.

METHOD

It is an exploratory descriptive research with quantitative analysis. Data were collected during the months from November to December 2014.
Data collection was initiated through the system e-MEC, Ministry of Education available online resource that provides information on public and private educational institutions. Data collection was conducted from an internet search, evaluating the curriculum of undergraduate courses in nursing identified. The study included all higher education institutions, public and private, in

northeastern Brazil who had undergraduate degree in Nursing.

The initial criteria for data collection were: state; city; name of the university; campus; existence of health informatics discipline; offer period; e-mail and telephone number.

When available online, analyzed the curriculum of nursing courses and identified the subjects that had themes related to information technology, assessing the name of discipline and, if possible, menu. In the absence of specific nomenclature for the the discipline, it was considered that any reference to the disciplines related to information technology would meet the criteria for inclusion in the study. So were considered as it courses in Health, those who reported, in the appointment or in their menus, the basic computer education applied in health information systems or computer science applied to healthcare.

This study was approved by the Ethics and Research involving human subjects at the Federal University of Pernambuco on 8 April 2014, under the consubstantial seem CAAE record in the process - 15964213.0.0000.5208.

RESULTS

They analyzed a total of 217 institutions, where only 58 have computer- related discipline. The data of these institutions were distributed by the state, as can be seen below (Table 1).

Table 1. Distribution by state, the number of institutions that offer courses related to information technology, public and private institutions of undergraduate courses of the northeastern region of the country, Brazil, in 2015.

State	Amount of public and private institutions that have computer- related discipline
Alagoas	03
Bahia	15
Ceará	05
Maranhão	10
Paraíba	02
Pernambuco	06
Piauí	08
Rio Grande do Norte	06
Sergipe	03
Total	**58**

As for the period in which the discipline is provided by schools, they were listed the following categories: disciplines offered at the beginning of the course, covering up the 3rd period; courses offered in other periods in the curriculum; courses offered as electives; disciplines offered without discriminated period (Table 2).

Table 2. Period in which the discipline is provided by educational institutions, Brazil, in 2015.

	Campi / courses Public Institutions		Campi / Courses Private Institutions	
Variables	N	%	N	%
Courses offered at the beginning of the course	04	6,2	15	9,8
Courses offered in other periods of the curriculum	42	61	129	84,3
Courses offered as electives	15	23,4	06	3,9
Disciplines offered free period discriminated	06	9,4	03	02
Total	64	100 %	153	100 %

DISCUSSION

In this study it was found that from a total of 217 institutions evaluated, only 58 units have computer-related discipline. This reality does not contribute to the current employment status of nurses as health in technological innovation is an increasingly common reality in this scenario2. Professionals who have basic knowledge of

these technological innovations, achieve a better and peaceful management of these resources and can realize the benefits from its use. This greatly contributes to the nursing work within health units[5].

From the perspective of nurses and their interaction with new techniques at work, electronic medical record stands out as one of the most common forms within the field. In a study conducted in the South, it was the implications of installing electronic medical record in a basic health unit, and it was found that there were significant contributions in carrying out the nursing consultation, and consequently facilitating the patient's data storage, which contributed strongly in the management of this unit[1].

From this perspective, it is important to note that in basic units, management must be made by the team, but this is not the reality that is established. What we see most commonly is the nurse performing this function. Given this reality, the use of electronic medical records in primary care contributes greatly to the management of that unit, and brings a positive impact on the supply data to the e-SUS (National Health System). The e-SUS is the response of the restructuring of the Primary Care Information System (SIAB) and has two software systems for data capture: the system with Simplified Data Collection (CDS-AB) and the system with Electronic Dossier Citizen (PECAB). The CDS-AB is already quite common in all the basic health units, through the completion of the ballot, which is made by the unit's employees, and subsequent typing, which usually takes place outside the unit by other professionals. Regarding the PECAB, it can be said that is a distant reality for much of this scenario. Among the justifications for preventing the introduction of this service, there is the financial partner context that these health facilities are[6].

However, despite PECAB is not common, it's installation is under process in the country, which requires professional preparation prior to using this technology. The PECAB brings improvements to health both in local character, spanning organizational gains in the unit; improved registration services; largest multidisciplinary and intersectoral communication. As regards nationwide, there is national registries of services, which makes up indicative notorious health, and solid foundation in the creation and improvement of public politics[7].

Therefore, this technology greatly contributes to health management at the municipal, state and national, and it becomes essential that professionals, especially nurses, be prepared to properly handle this new device. Regarding the electronic medical record in the hospital field, a study shows that in addition to greatly contribute to the management of the health institution, reduces the workload, improves quality of care and produces concise information in a quick breack of time[8].

The computerization of patients seen data contributes to a fundamental requirement for practice based on evidence, reflecting on research in the health area. In this sense, the introduction of health informatics is viewed as a revolution that will reach all health care levels, providing solid strategies for appropriate management of these establishments. Therefore, these challenges must be met adequately, and their training should fit the current reality of the working market[9].

For the period in which the discipline is provid-

ed by educational institutions, specifically those offered early in the course, a criticism is made about the necessary correlation between computer education with practice. Generally internships and / or practical classes are held after the third period of the course, in this sense the students can not correlate the content learned to care practice, what happens in the "courses offered in other periods of the curriculum"[10].

About the courses offered as electives, a point is established, if the student should be free to decide whether or not to attend computer course in health. Is the student mature enough to decide to attend or not the discipline, based by these technologies in practical class courses for graduation?

Therefore in all this discursive plot that is established, it is suggested that future studies seek to evaluate the rest of the country, aimed at assessing other locations.

FINAL CONSIDERATIONS

It appears from this study that is relevant to insert related discipline with computer in the training of future nurses, aiming at training qualified professionals to use these new technological resources in the service.

Regarding health management, these innovations provide transparency about the services provided and improvement in the organization of such data. It should be emphasized that these items provide basis for creation and improvement of public politics; evidence- based procedures; and research in the health area.

Therefore it is important to prior training of these professionals in view of the proper management of these resources, which reflects beneficially in health management at all health care levels.

REFERENCES

1. Silva SH, Cubas MR, Fedalto MA, Silva SR, Lima TCC. Estudo avaliativo da consulta de enfermagem na rede básica de Curitiba. Rev. Esc. Enferm USP. 2010;44(1): 68-75.

2. Apostolico MR, Egry IEY. Uso da internet na coleta de dados primários na pesquisa em Enfermagem. RevBrasEnferm. 2013 nov-dez;66(6):949-55.

3. Furukawa PO, Cunha ICKO. Perfil e competências de gerentes de enfermagem de hospitais acredita dos. Rev. Latino-Am. Enfermagem [Internet]. jan-fev 2011 [acesso em: 22 set 2015];19(1):[09 telas]. Disponível em: http://www.scielo.br/pdf/rlae/v19n1/pt_15

4. Godoy JSM, Gonçalves LS, Peres AM, Wolff LDG. O uso do prontuário eletrônico por enfermeiros em Unidades Básicas de Saúde brasileiras. J. Health Inform. 2012 Janeiro-Março; 4(1): 3-9

5. Farias JS, Guimaraes TA, Vargas ER, Albuquerque PHM. Adoção de prontuário eletrônico do paciente em hospitais universitários de Brasil e Espanha: a percepção de profissionais de saúde. Rev. Adm. Pública [online]. 2011;45(5):1303-1326

6. Secretaria-Executiva e-SUS.e-SUS Atenção Básica: manual do Sistema com Coleta de Dados Simplificada: CDS [recurso eletrônico] Brasília: Ministério da Saúde, 2014.

7. Secretaria-Executiva e-SUS Atenção Básica: Manual de Uso do Sistema com Prontuário Eletrônico do Cidadão PEC v.1.3. Brasília: Ministério da Saúde, 2014. [Acesso em: 28 set 2015]. Disponível em: http://dab.saude.gov.br/portaldab/esus/manual_pec_1.3/index.php

8. Fumis RRL, Costa1 ELV, Martins PS, Pizzo V, Souza IA, Schettino GPP. A equipe da UTI está satisfeita com o prontuário eletrônico do paciente? Um estudo transversal. RevBras Ter Intensiva. 2014;26(1):1-6

9. Marin HF, Cunha ICKO. Perspectivas atuais da Informática em Enfermagem. RevBrasEnferm. 2006;59(3):354-7.

10. Lima AFC, Melo TO. Percepção de enfermeiros em relação à implementação da informatização da documentação clínica de Enfermagem. RevEscEnferm USP 2012,46(1)175-83.