

# Competencies developed in a nursing management distance learning specialization course

Competências desenvolvidas em um curso de especialização em gestão em enfermagem à distância

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## Keywords

Nursing; Education, nursing; Nursing education research; Education, distance; Competency-based education

## Descritores

Enfermagem; Educação em enfermagem; Pesquisa em educação de enfermagem; Educação a distância; Educação baseada em competências

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## Abstract

**Objective:** The aim of the research was to identify managerial competencies developed in nursing management distance learning specialization course, based on the responses of students who completed the course.

**Methods:** This was an exploratory, transversal study using a quantitative approach, with a convenience sample of 197 graduates of the first Course was conducted in eight cities within three Brazilian regions, between may and july 2009. Transcripts were analyzed using an established Brazilian theoretical framework for nursing managerial competencies.

**Results:** Participants cited 274 competencies, and identified 14 primary managerial competencies. Leadership was most frequently cited, followed by communication, knowledge acquisition and teamwork.

**Conclusion:** This study identified 14 essential nursing managerial competencies for practice, and indicated a strong potential for distance learning as an educational tool to improve professional qualifications.

## Resumo

**Objetivos:** O objetivo da pesquisa foi identificar competências gerenciais desenvolvidas no curso de especialização em gestão em enfermagem modalidade educação à distância, com base nas respostas dos alunos que concluíram o curso.

**Métodos:** Este foi um estudo exploratório, transversal com abordagem quantitativa, com uma amostra de conveniência de 197 Especialistas. O primeiro curso foi realizado em oito cidades em três regiões do Brasil, entre maio e julho de 2009. As transcrições foram analisadas utilizando um referencial teórico brasileiro sobre competências gerenciais em enfermagem.

**Resultados:** Os participantes citaram 274 competências e identificaram 14 competências gerenciais primárias. Liderança foi a mais citada, seguida de comunicação, aquisição de conhecimento e trabalho em equipe.

**Conclusão:** Este estudo identificou 14 competências gerenciais de enfermagem essenciais para a prática, e indicou um forte potencial da educação à distância como uma ferramenta educacional para melhorar as qualificações profissionais.

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**Conflicts of interest:** Bohomol E is the editor associated with Acta Paulista de Enfermagem and did not participate in the manuscript evaluation process.

## Introduction

The concept of competence has existed since the middle ages and has been modified over the years. Currently it is believed that competencies imply the enhancement of professional performance, increasing the use of individual and collective capabilities in order to add economic value to organizations and social value to the individuals, serving as social transformations for a society.<sup>(1)</sup>

One of the challenges facing professionals in general, and specifically those in the health care area, is that their qualifications are constructed based on professional competencies. They must expand their specialized technical, ethical, and political knowledge, communication and personal interactions to exercise their ability to integrate multiple subjects, with regard to knowledge, skills and the ability to function within the world of work.<sup>(2)</sup> With the current shortage of nurses with administrative expertise within Brazil, it is important to identify these competencies and find methods for disseminating knowledge surrounding them across a wide geographic area, while maintaining consistency and quality of instruction and competency evaluation.

To provide for the demand for competency, educational institutions have made use of different strategies in order to provide more open access to knowledge. Distance learning (DL) is included within this context, which makes use of virtual environment technology as a resource, thus becoming a new classroom for the students. The DL has attributes that address the need for continuing professional education, due to the flexibility of time and place for study that removes the need to relocate to a specific geographic area.<sup>(3)</sup>

The Paulista School of Nursing of the Federal University of São Paulo (UNIFESP), in Brazil, has expertise in educating specialists in nursing service management in classroom settings since 1999. The attention of the faculty to demand and market competitiveness, sustainability of organizations and expansion of management positions within the health services and basic care / primary, led them to develop a Nursing Management Distance Learning (NMDL) course. The NMDL course lasted 12

months, and began in April of 2009. It consisted of a workload of 416 hours distributed into eleven disciplines across the curriculum.

The aim of the research was to identify managerial competencies developed in NMDL specialization course, based on the responses of students who completed the course.

## Methods

This was an exploratory study with a triangulated qualitative - quantitative approach, using an open-ended questionnaire for data collection. The convenience sample included graduates of the first specialization course in NMDL. The population came from students enrolled from eight sites within Brazil, representing the Southwest, North and Midwest regions of the country. Inclusion criteria were: any student who successfully completed the specified NMDL course. There were a total of 216 students in the population, with 197 consenting to participate (91.2%). All students were eligible to participate, as there were no students who were unsuccessful in completing the NMDL course. The sample of participating students provided a total of 333 responses; of these 274 related to managerial competencies, 59 responses did not meet the criteria for inclusion in the study. Responses were considered applicable to the study only if they dealt with the question posed, which asked participants to identify managerial competencies developed during the course and that they could apply in their professional practice.

A self-directed questionnaire was used for data collection, which had the following open-ended question: "What are the managerial competencies that you believe have been developed during the course, and that you are able to apply in your professional practice?" No restriction was placed on respondents with regard to the number of lines allowed or required for response. The survey data were collected in the months of may and july, 2010.

The procedures adopted to analyze the results included: transcribing the responses into an Excel® spreadsheet, conducting a thorough reading

of the contents, and classifying responses in accordance with the theoretical framework adopted called “Managerial competencies: a challenge for the nurse”.<sup>(4)</sup> Responses of the subjects were classified according to their naming of the competency, or elements identified in the responses that were in agreement with the definitions of competencies found in the reference material. It was not possible to categorize competency of 59 obtained responses, since these presented general comments about the administrative process, the importance of planning, supervision and other things about the course that were not relevant to competencies. The classification was performed by the primary investigator, with the approval of the course coordinator.

The study complied with national and international ethical standards in research involving humans.

## Results

A total of 197 specialization students completed the questionnaire, providing a total of 333 responses. The students were Brazilian, predominantly female (89.3%), aged 27-57, with most students between the ages of 28-32 (31.3%); 54.1% graduated from public universities with a degree in nursing, and 72.3% had graduated within seven years prior to this study. All participants responded to the research question regarding the development of competencies during the NMDL course, and some provided more than one response; we found a ratio of 1.4 responses / student.

Fourteen managerial competencies were indicated, as shown in table 1. Leadership was the most common competency noted, appearing in 26.7% of the responses, followed by communication (18.2%) and knowledge acquisition (9.9%). These competencies, along with teamwork (9.1%) and negotiation (7.3%), represented more than 70% of the responses.

To corroborate the importance of the leadership competency, table 2 represents the distribution of responses about this competency by sites, displaying the mean per site and region. It is noteworthy

that, both the northern and the southeastern regions similarly understand the importance of this competency (25.6% and 26.8%, respectively). This competency was highlighted in 44.4% of the responses from the Midwestern region.

The present research also sought to respond to whether there was a difference of opinion regarding the managerial competencies necessary in different regions of the country. Table 1 presents the citations for each of the competencies by sites and Brazilian regions.

It is noted that leadership was the competency with the largest number of citations in all eight sites. The communication competency was cited second, appearing in four sites (São Carlos, São Jose dos Campos, Jandira and Palmas) and knowledge acquisition was the third, in two sites (Breves and Palmas). In the Palmas site, it was found that the citations of the leadership competency was equal that given to teamwork (23.3%). Teamwork was also the competence cited second in the Itapetininga site (16.6%). The site at Juara had only nine citations of competencies by virtue of having only four students who completed the course, a fact that is repeated in the center of São Carlos.

## Discussion

This study has the following limitations: utilization of a theoretical framework adopted specifically in Brazil, whose information is reliable but which has not been validated. Another limitation is the classification of responses given, when the competence was not specifically named by the participant, but was interpreted from the text provided by the research subjects.

International implications of distance learning methods have shown the impact on improving nursing competency; this study builds on this previous work to support the use of those same methods in building and sustaining competencies for nurse managers, and provides information about the most important managerial competencies for nursing practice, emphasizing common needs mentioned in different contexts.

**Table 1.** Distribution of citations about the competencies developed by students of the NMDL Course by sites and their insertion in the Brazilian regions

	Northern region			Southeastern region				Midwestern region
	Breves (PA)* n(%)	Palmas (TO)** n(%)	Parauapebas (PA)* n(%)	São Carlos (SP)*** n(%)	São José dos Campos (SP)*** n(%)	Itapetininga (SP)*** n(%)	Jandira (SP)*** n(%)	Juara (MT)**** n(%)
Knowledge acquisition	3(21.5)	3(10.0)	1(8.4)	0(0)	6(7.0)	2(5.5)	11(14.1)	1(11.1)
Commitment	0(0)	0(0)	0(0)	0(0)	0(0)	1(2.8)	1(1.3)	0(0)
Communication	1(7.1)	3(10.0)	3(25.0)	2(22.2)	23(26.7)	2(5.5)	15(19.2)	1(11.1)
Creativity	0(0)	1(3.3)	0(0)	1(11.1)	1(1.1)	1(2.8)	1(1.3)	0(0)
Entrepreneurship	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Teaching & Learning	2(14.3)	0(0)	0(0)	2(22.2)	2(2.3)	5(14.0)	3(3.8)	1(11.1)
Flexibility	0(0)	1(3.3)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Focus on the client	0(0)	1(3.3)	2(16.6)	0(0)	1(1.1)	2(5.5)	1(1.3)	0(0)
Resource management	0(0)	1(3.3)	0(0)	0(0)	4(4.6)	2(5.5)	6(7.7)	0(0)
Integrated management of processes	0(0)	2(6.7)	0(0)	0(0)	5(6.0)	2(5.5)	0(0)	0(0)
Leadership	4(28.6)	7(23.4)	3(25.0)	3(33.4)	29(33.8)	7(19.5)	16(20.5)	4(44.4)
Negotiation	1(7.1)	1(3.3)	3(25.0)	0(0)	3(3.4)	2(5.5)	8(10.2)	2(22.3)
Decision-making	1(7.1)	1(3.3)	0(0)	1(11.1)	5(6.0)	1(2.8)	8(10.3)	0(0)
Teamwork	2(14.3)	7(23.4)	0(0)	0(0)	4(4.6)	6(16.7)	6(7.7)	0(0)
Strategic vision	0(0)	2(6.7)	0(0)	0(0)	3(3.4)	3(8.4)	2(2.6)	0(0)
Total	14(100)	30(100)	12(100)	9(100)	86(100)	36(100)	78(100)	9(100)

Legend: \*PA – Pará; \*\*TO – Tocantins; \*\*\*SP – São Paulo; \*\*\*\*MT – Mato Grosso

**Table 2.** Distribution of responses on the leadership competency by site and by region

Region	Site	n(%)	% per region
Southwest	São José dos Campos (SP)*	29(33.8)	26.8
	Jandira (SP)*	16(20.5)	
	Itapetininga (SP)*	7(19.5)	
	São Carlos (SP)*	3(33.4)	
North	Palmas (TO)**	7(23.4)	25.6
	Breves (PA)***	4(28.6)	
	Parauapebas (PA)***	3(25.0)	
Midwest	Juara (MT)****	4(44.4)	44.4

Legend: \*SP – São Paulo; \*\*TO – Tocantins; \*\*\*PA – Pará; \*\*\*\*MT – Mato Grosso

Before considering the implications of the findings, it is important to consider some specific differences within the various sites studied within Brazil that might impact the results. Brazil is a country with continental dimensions and very different realities in each region, considering the geographical, cultural, and socio-economic profile aspects of the population, along with access to and quality of education. The southeastern region concentrates the largest number of educational centers of the country: universities, colleges, research centers and other centers of study, showing a higher level of devel-

opment.<sup>(5,6)</sup> Presently the northern region is still considered to be very delayed, such that indicators of the Ministry of Education noted that the lowest national averages on the National Survey of High Schools were from this region, in 2006.<sup>(7)</sup>

Participants in this study identified leadership as the most important competency for the practice of nursing management in the different regions and sites of the country. According to the theoretical framework reference, leadership is the “capacity to influence people, plan, manage conflicts and communicate effectively, to respect differences,

and to reach or surpass institutional objectives”.

<sup>(4)</sup> The citation of leadership is highlighted in similar fashion in both the northern and southeastern regions, as in the Midwestern region, where it was predominant. This finding agrees with authors that consider leadership to be one of the main competencies for a professional in the health area, along with important elements related to commitment, professional activities, responsibility, empathy, communication and others that contribute to excellence in work team performance.<sup>(8)</sup> A study with nurse managers and supervisors from 14 institutions showed that leadership was the most important competency for their practices and should be continuously improved, and that both the professionals and the institutions should mobilize efforts and dedication to its development.<sup>(9)</sup>

Communication, according to the theoretical framework reference, is the “capacity to make effective use of verbal, nonverbal and paraverbal language by sharing information, experiences, ideas and emotions” it was found to be the second most frequent competency noted among the participants’ citations.<sup>(4)</sup> This is highlighted in the southeastern region, demonstrating its relevance in a region of greater economic development in the country.<sup>(10)</sup> To corroborate this assertion, a study conducted in the southern region with undergraduate students in nursing, an area possessing characteristics that are similar to the southeast, highlighted the importance of communication in management and care activities of the nurse, for the promotion of safe patient care.<sup>(11)</sup>

Communication is effective when the message arrives in a clear and comprehensible way to the receiver, allowing the understanding of the people involved, about the validity and viability of the direction to be taken, contributing to the construction of the authenticity of the nurse as a qualified professional for the promotion of care.<sup>(12)</sup> A study performed with graduate students at the University of São Paulo, Brazil, revealed that in some everyday situations the nonverbal communication relative to the interaction between health professionals and patients consisted of an iatrogenic factor; that is, the subjective behavior may unintentionally trigger

emotional and irreversible damage. Nevertheless it was noted that in iatrogenic situations, communication can have a therapeutic effect.<sup>(13)</sup>

Knowledge acquisition is the “capacity to continuously seek knowledge and information, to maintain learning with an organizational focus, acting in a proactive, centered and determined manner”.<sup>(4)</sup> The concern of professionals in relation to the competency of knowledge acquisition can be verified, principally because of the era of human capital, where talent, intelligence and knowledge are seen as economic forces, and scientific research and education are the basis of wealth generation for the society.<sup>(14)</sup>

It is noteworthy that the citations of this competency gained prominence in the sites of Breves and Palmas, in the northern region. The competencies mentioned by students in Breves may be explained by their regional needs that make the continuous search for knowledge a priority, such as the location of this municipality within Brazil, which has difficult access that is possible only by boat (about a 12 hour journey) or plane, and low Human Development Index (HDI) in education related to the rate of literacy and school attendance.<sup>(15)</sup> The responses of students from Palmas coincided with the interest and search for knowledge that this municipality has demonstrated in recent decades, as evidenced by a progressive increase in its HDI in education. Today this area has the best score on indicators of education and of income per capita within the northern region of the country, when compared to other cities in the region.<sup>(15)</sup>

Research demonstrates that nursing managers of public and private hospitals, in the southeastern region of the country, agreed that the competency of knowledge acquisition is fundamental, and that its development should occur within both the personal as well as the institutional context. They attribute great importance to continuing education that should provide structured, modern, specialized knowledge to professionals. However, they emphasize that self-development, which occurs when an individual seeks knowledge, should also be stimulated. Such information matches the citations of the nurses in this study who sought a specialized course

to update themselves and subsequently, to return with this knowledge to the institution, community and society, working with quality and excellence.<sup>(16)</sup>

The competency of teamwork reflects another reality of the everyday life of the nurse. Teamwork is the “ability to interact with people, to meet common objectives and to accept the differences between them. To remain accessible and respectful, and to share information with the team”.<sup>(4)</sup> This professional is invariably inserted into a team of technical and / or auxiliary nurses, which make up the nursing staff in Brazil, or into a multidisciplinary team, where there are physicians, physiotherapists and nutritionists, among others. The multidisciplinary team as the strategy to reduce care fragmentation is a trend in diverse sectors of health, especially in primary care, and can strengthen the integrated, comprehensive care provided to the patient. Teamwork is strongly allied to the practice of nursing managers, who depend primarily on satisfactory interpersonal relationships to obtain good patient care results and high levels of team satisfaction.<sup>(17)</sup>

The use of DL, as with the present study, opens a perspective for standardization of educational content offered by universities and educational organizations, which can be broadcast across great distances, using the same approach and references, thus contributing to a more updated practice of nursing, based upon evidence, and disseminated in a uniform manner, avoiding loss or distortion of content.

## Conclusion

This study identified 14 managerial competencies mentioned by students in the NMDL specialization course, with the most cited being leadership, communication, knowledge acquisition and teamwork. Also showed that there were similarities in the annotation of the competencies developed by nurses through the course in different regions within Brazil. It is inferred from this that the course brought an approximation between these regions the educating of professionals in the subjects covered.

## Collaborations

Okagawa FS declare to have contributed with the stages of study conception, analysis, interpreting data and drafting the article. Bohomol E declare to have contributed with the stages of study conception, analysis, interpreting data and drafting the article and relevant critical review of intellectual content. Cunha ICKO contributed to the realization of the project, analysis and interpretation of data and the final approval of the version to be published.

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