ARTICLE INTEGRATIVE REVIEW

COMPETENCE OF NURSES IN PRE-HOSPITAL URGENCIES AND EMERGENCIES: INTEGRATIVE REVIEW

COMPETÊNCIA DE ENFERMEIROS EM URGENÇIAS E EMERGÊNCIAS PRÉ-HOSPITALARES: REVISÃO INTEGRATIVA

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ABSTRACT

Objective: to evaluate the scientific evidence about the skills of nurses inPre-hospital attendance. Method: integrative review, with search in the databases LILACS, MEDLINE and SCOPUS, studies among 2002 to 2012. For that, the question was elaborated << Which are the evidence about the skills of nurses for the pre-hospital care? >>. After the selection of studies, they were read in their entirety and, then, the data were extracted and organized for analysis into categories. Results: It was found the managerial, technical, educational, cognitive and interactional. The competence, in the context of practice of nurses, showed different significations: own function of professional and ability to perform the task with quality, knowledge, experience, as well as personal values. Conclusion: the abilities identified in each competence are important insofar as they contribute to the clarification of the elements and strategies of nurses to respond better to the needs inherent to each competence in the pre-hospital Care. Descriptors: Clinical Profession; Professional Competence; Nursing in emergency; Nursing.

RESUMO

Objetivo: avaliar as evidências científicas acerca das competências de enfermeiros no Atendimento Pré-hospitalar. Método: revisão integrativa, com busca nas bases de dados LILACS, MEDLINE e SCOPUS, de estudos entre 2002 a 2012. Para isso, foi elaborada a questão << Quais as evidências sobre as competências do enfermeiro para o atendimento pré-hospitalar? >>. Após a seleção dos estudos, procedeu-se com a leitura na íntegra e, em seguida, os dados foram extraídos e organizados para a análise em categorias. Resultados: foram encontradas a competência gerencial, técnica, assistencial, educativa, cognoscitiva e interacional. As competências, no contexto de atuação do enfermeiro, mostraram diferentes significações: função própria de profissional e capacidade para desempenhar a tarefa com qualidade, conhecimento, experiência, assim como valores pessoais. Conclusão: as habilidades identificadas em cada competência são importantes na medida em que contribuem para a clarificação dos elementos e estratégias de enfermeiros para responder melhor às necessidades inerentes a cada competência no Atendimento Pré-hospitalar. Descritores: Competência Clínica; Competência Profissional; Enfermagem em Emergência; Enfermagem.

RESUMEN

Objetivo: evaluar las evidencias científicas acerca de las competencias de enfermeros en la Atención Prehospitalaria. Método: revisión integrativa, con búsqueda en las bases de datos LILACS, MEDLINE y SCOPUS, de estudios entre 2002 a 2012. Para eso, fue elaborada la pregunta << ¿Cuáles son las evidencias sobre las competencias del enfermero para la atención pre-hospitalaria? >>. Después de la selección de los estudios, se procedió con la lectura en su íntegra y, en seguida, los datos fueron extraídos y organizados para el análisis en categorías. Resultados: fueron encontradas la competencia gerencial, técnica, asistencial, educativa, cognoscitiva e interacional. Las competencias, en el contexto de actuación del enfermero, mostraron diferentes significaciones: función propia del profesional y capacidad para desempeñar la tarea con calidad, conocimiento, experiencia, así como valores personales. Conclusión: las habilidades identificadas en cada competencia son importantes en la medida en que contribuyen para la clarificación de los elementos y estrategias de enfermeros para responder mejor a las necesidades inherentes a cada competencia en la Atención Pre-hospitalaria. Palabras clave: Competencia Clínica; Competencia Profesional; Enfermería en emergencia; Enfermería.
INTRODUCTION

Pre-hospital emergency configures itself as risk factors of life when the service is not performed in time and appropriate procedures are not carried out. The rapid and effective assessment of severity at the accident place may represent a chance of survival for victim to the arrival at the hospital; therefore, there is a need for training of health professionals to act in Pre-hospital Care (PHC).1,2

The Emergency Mobile Service (SAMU) was deployed in Brazil in September 2003 and is an important component of health care, being one of the areas of expertise of nurses, whose purpose is to serve as early, and appropriately, the urgencies and emergencies that have occurred in out-hospital environments.1

In Brazil, from the decade of 1980s, it was given emphasis in the training of nurses operating in emergency care and, in 2002, it was regulated and normalized the Pre-Hospital Care (PHC), defining competencies of the team that operates this service.1

The competence is in the legal bases for making actions on construction of human resources training policy, establishing as one of the tasks of the Unique Health Unit (SUS) the ordering of human resources training.3,4

In this sense, qualification requirements and productivity of health care professionals to meet the changes quickly in economic, political social and cultural contexts have been seen; what extends the eligibility requirements of workers, making increasingly required the deployment of training models and competences based management.5,6

The concept of competence is not new dating back for centuries, probably since the time of apprentices to craftsmen in the middle ages and the evolution of this concept, as well as from its use by the human resources area, has been much debated. The definition of professional competency and training and qualification based in competences emerged in the years of 1960s, in the United States, and years of 1980s in England.7 Thus, it was conceived as the quality of who is able to appreciate and solve particular subject, carry out activity and ability to meet the personal and professional needs in the most varied contexts of services.8

The formation of nursing workers in Brazil adopts the perspective of vocational competences anchored in a critical-emancipatory approach, with appreciation of diversity and aspects related to the practice and its specificities, whose different production units in health care must be considered and based on the fundamentals of the SUS.9

The Ministry of health (MS), through the Emergency Education Cores (NEU), proposes broad training and qualification process for the regulation of health professionals within the SUS, and as a way to maintain and increase the autonomy of individuals, comes to implement the strategy for the promotion of quality of life as a way of confronting the causes of emergencies.3,4

This strategy seeks to enhance the prevention of harm and protection of life, generating change in welfare perspective - focused on the consequences of damages that generate emergency - to aspire to the integral and integrated vision, totalizing approach and seek to generate autonomy for individuals and collectivities. So, it should be included in health promotion strategy, protection of life, health education and the prevention of harm and diseases, in addition to new meaning to care and rehabilitation.4

The nurses are constantly asked to assume roles in nursing care and that the challenges to seek knowledge in order to improve actions for health promotion. The insertion of the nurse in pre-hospital care is not new, since there have been reports of the presence of this professional in the care of the wounded in big wars, however, in Brazil, this evidence occurred only from the early 1990s, when structuring the attendance to the urgencies/emergencies wins new focus.10 In this context and with the purpose of contributing to the nursing for delimitation of attribution at PHC, justifies the need to conduct studies that reflect the competencies of nurses to Pre-hospital Care (PHC).

Given the context presented, it aims:

- to assess the scientific evidence about the competences of nurses in Pre-hospital Care.

METHOD

It was used the methodology proposed by the integrative review, method used in evidence based practice that makes it possible to gather and synthesize results of studies on particular issue.11,12 Six phases were used: identification of the subject or problem definition and elaboration of the guiding question for the research; establishment of criteria for inclusion of articles (sample selection); definition of the information to be extracted from selected articles; evaluation of selected studies; analysis and interpretation of results; and presentation of results.11
To guide the review, it was formulated the question << Which is the evidence about the competences of nurses for the pre-hospital care? >> The searches were in databases Latin American Literature and Caribbean Health Sciences (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE) and SCOPUS.

The inclusion criteria were: articles published between the years (2002 to 2012) in national and international journals (Portuguese, English and Spanish), representing information about evidence of the competences of nurses for the pre-hospital care. Exclusion criteria: letters to the editor, theses and dissertations. For the analysis of articles, type of study variables were used, author, year, location of the development study.

The survey of the studies were done using the descriptors in Health Sciences/Medical Subject Headings (DeCS/MeSH): clinical competence; professional competence; emergency nursing; Nursing. To search the three databases and intersection of descriptors, it was used the Boolean operator “AND”.

To expand the universe of research and minimize possible biases were used health books. On care criteria for inclusion were read the title and the abstract of each study. In order to strengthen the results and increase the level of reliability of studies, the evaluation of the studies and of forces classification evidence was made.13

The search allowed finding 207 studies: 54 in LILACS, 93 in MEDLINE and 60 in SCOPUS. After application of the inclusion criteria established in advance, for this integrative review, 13 articles were selected, five identified in LILACS, six in MEDLINE and two in SCOPUS. In relation to the type of sources in which the articles were published, one has been identified in nursing magazine in emergency and 12 in generalized nursing magazines.

After selection of the articles, the reading of these in their entirety was done and subsequently, was extracted and organized the data for further analysis. For those at the beginning of the search were not available in the databases were accessed through the portal of journals of the Coordination of Personnel Improvement and Higher Level-CAPES. Those who were included after reading the summary and title of each one of them, it turned out the relevance with the guiding question.

The studies were organized in sheets with the following data: Authors, Year, Journal and Title and summarized in Figure 1. Then the categories of analysis were formed:

- Abilities categorized in technical/assistance competence
- Abilities categorized in cognoscitive competence
- Abilities categorized in interactional competence
- Abilities categorized in educational competence
- Abilities categorized in managerial competence

RESULTS AND DISCUSSION

In this research, 207 studies were found, from these, after application of the inclusion criteria established in advance, left 13. The articles selected for analysis are summarized in Figure 1.
13 articles were found and, on the methodology analysis, excelled the descriptive and quantitative in nature. Most studies involved adult population and had the hospital as the main search scenario.

In the texts selected for the research, 138 nurses’ competences were found for acting at the PHC. The specificity of actions contained in each of them, it was possible to classify them and distribute them in thematic categories of technical/care competences; cognitive; interactional; educational and managerial. 

On the analysis of 138 abilities distributed in thematic categories found, it was realized recurrence abilities in the same competencies. In other situations, it was applied to more than one competence. Thus, based on similarity and repetitions, they were refined and recategorized.

For the purpose of understanding of the deletion process, examples of the abilities categorized in competences were cited, by degree of similarity and repetitions, were refined and reclassified.

As examples of repeated abilities, the technical/care competence were observed: "having physical and mental capacity to the APCM activity"; “Fitness to work in mobile units”; “Having physical and mental capacity for activity; “Have physical fitness to work in mobile units and activity ”; “Physical ability to perform the activities of the APCM requiring physical exertion”. These were similar with regard to actions in this way, we decided to select “Have physical ability to perform the activities of the APFM requiring physical effort”, since it presents greater scope and specificity for the APC.

As examples of abilities repetitions of the same competence, it was observed “Present domain in dealing with unexpected situations and act with off-hand” classified as cognisective competence and repeated in the same category with the definition “Capacity and domain to deal with off-hand”. Based on a more specific definition of APCM activity, we decided to select "Capacity and domain to deal with off-hand".

After the refining process carried out in accordance with the exclusion of similar abilities, as well as those which were repeated, resulting in 105 abilities, of which 28 were categorized in technical/care competence, 23 in managerial, 20 in education, 19 in cognisective and 15 in interactional. The following presents the results of the categorization of the abilities for each competence.

 Abilities categorized in technical/assistance competence

After the refinement of abilities found in care category resulted: assistance; technical turnover in the sectors of APC; realization of manual extraction maneuvers of victims; use of the rescue equipment of incarcerated victims; use of personal protective equipment; communication via radio, camera and phone in car; execution of medical prescriptions for telemedicine; preparation and administration of medicines with technique for peripheral venous access, intra osseous and femoral; kinematic evaluation of occurrence and conducting of attendance...
using the bio-security standards; realization of care of victims as the conducts laid down in the Protocol of screening; carrying out the stages of initial service; organization of ambulance; daily check list of equipment; Re-evaluation of conduct provided in attendance; play activities in land mobile, aerial and aquatic areas; perform evaluation procedures and reevaluation of the patient, following protocol established; performance of procedures and cardiopulmonary resuscitation maneuvers; technical and scientific performance for specific functions in APC; use of equipment and aid in the diagnosis; treatment and rehabilitation of victims; promotion of the completeness of the care to health; nursing care of greater technical complexity to patients with serious and life-threatening; immediate decision-making; nursing care to pregnant women, mother and newborn in pre-Hospital care; personal layout for activity, training and professional experience; competence; physical capacity; ability to deal with stress; Clinical reasoning to decision-making and the ability to perform interventions promptly; perform tasks with minimal time available and set priorities.1,3,10

The refinement allowed to keep the abilities in the category of technical/care competence consider relevant to the welfare of nurses in the APC.

These abilities represent the priority of assistance according to the primary evaluation and perspective to identify early causes and circumstances threatening the life of the individual. Therefore, it is considered important that the emergency nurse has ability and knowledge to conduct an efficient service.1

The results pointed to the need for specific abilities and characteristics of nurses to practice in APC; it is a worrying fact, because such knowledge is not integrated to the content of curriculum subjects of nursing courses.1

The mortality from external causes is considered current public health problem and scientific evidence show prevalence of adult victims in the APC. Thus, the issues related to Pre-Hospital Care should be part of the formation of nurses.17 This comes to ratify the need of theoretical knowledge and technical abilities for the training of nurses in terms of attendance of victims in all ages, given the specificity of each cycle of life.2

♦ Abilities categorized in cognoscitive competence

In the category of cognoscitive competence, after refinement resulted: draw strategies for coping with stressful situations; domain to deal with off-hand events; taking quick actions to facilitate the assistance; sufficient knowledge based on experience in emergency to act in APC; perform patient care in critical condition; have knowledge of the epidemiological profile of the population; use knowledge of Biomechanics to assess and draw strategies to attend, regardless of the age of the user; know about the screening strategies to encourage attendance in accordance with priorities; possess sufficient knowledge to compete equally in the labor market; acquisition of new knowledge through trainings; have emotional control; have creativity and knowing how to apply knowledge in problem-solving; have knowledge of Pharmacology applied to emergency; bureaucratic activities; undertake; take responsibility; act; mobilizing brainpower; reviewing mental models and learn.1,15-16,18-21

This category is that one of the required abilities is the emotional control to deal with stressful situations, which corresponds to a “knowing Act” responsible that involves knowing how to mobilize, integrating and transferring knowledge, resources and abilities in a context of APC, whose stress is constant.19-22

Behavioral abilities and multiple cognitive processes are used so that nurses can make decisions for patient safety and health maintenance. However, organizational characteristics and the contextual factors influence on the emergency care environment.21

♦ Abilities categorized in interactional competence

In the category of interactional competence resulted the abilities: support the care following the National Plan of Humanization; perform the care with autonomy; maintain good level of interpersonal relationship; have ease of communication; promote the host and build links with the subjects assisted and acknowledge and act as an agent of transformation of reality in the health plan and assess the Professional/client relationship; evaluate the institutional policies for guarantee of ethics in the implementation of care; meet host strategies for assistance to victims of sexual abuse; maintain the dialogue between the different health services; facilitate the interaction between the various urgent and emergency services; be aware of the availability of places

English/Portuguese

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demands on hospital emergency network to request and referral of patients; develop and exercise “intersectoral approach” on health care; promote security in the backdrop of pre-hospital care; know how to work in teams and to obey the law of Professional Practice and Code of Ethics of Nursing.\textsuperscript{3,10,20}

The abilities categorized in this competence bring socio-interactive attributes, which are necessary for the nurse to lead to assistance in the APC as well as interaction and integration, recognizing context, i.e. abilities that represent the capacity of nurses to interact with the team, the individual, the family and community, with a view to contributing to the improvement of the results of nursing care.\textsuperscript{9}

Nursing care should encourage the rupture of the social inequities and consider the individual to be careful as one of the main actors in this process, with the possibility of answer for self-care and for the preservation of its own existence.

In this perspective, Nursing, while committed to the profession and social practice in a participatory and political stance, needs to redirect their actions for the practice of reality and have their own understanding of the transformative power of society and not only work with technical agents, devoid of character questioner.\textsuperscript{9,18}

\textbf{Habilidades categorizadas en competencias educativas}

The abilities for the educational competence were distributed in: effective communication; teaching practice; theory and practice articulation; use dialogue as a strategy for the transformation of reality in health; understand, process, transmit information and knowledge, ensuring the understanding of the message by the other; working knowledge and experience; to develop and promote the development of others; operationalize pedagogical techniques that make possible dialogue with the subjects, by actually Instrumenting them with appropriate information; update itself permanently in order to qualify the care to be provided; develop educative actions in health to the population as a way to minimize occurrences of harmful events that generate emergency situations; subsidize those responsible for the development of human resources for the continuing education needs of staff; conduct training with nursing staff; supervise the team; evaluate the activities carried out by all the nursing staff; participate and training and permanent trainings; implement measures of promotion and prevention of diseases which manage risk condition for emergence to the individual, family and community; feed the health information systems in order to streamline the assessment of results; communicate; conduct studies that generate justification for subsidizing the practice at APC.\textsuperscript{1,13,20-23}

In this category, are regarded as significant abilities to the performance of nurses, both in self-improvement and educational process developed with the team, as well as with the individual, family and community.

Historically, the educative actions in health services were more to legitimize scientific and technical knowledge and enforce it to the population than, exactly, promote dialogue and participatory shared with subjects, in the search for a common project capable of facing the problems of health and health needs of the subject.\textsuperscript{19} However, in this review, the result of the analysis of the skills of educational competence category revealed that historically the Nursing, as a profession, has the professional practice pervaded by educational component essential for initial training and professional practice. So, the development of competences for educational practices in health becomes necessary in order to discuss and reflect on how the competence can be operationalized in practice of nursing.\textsuperscript{15}

The abilities listed in the category of educational competence reflect practices that pervade the work of nurses, which should promote dialogue and collective participation during the process, making it essential that these health professionals can promote the greeting and then build links with subjects involved in the process, in order to meet health needs.\textsuperscript{14-20}

The purpose of health education is to use not only of linear cognitive knowledge, but uniting behaviors and attitudes, in order to exert social control is indispensable to democracy, becoming indispensable to the nurse perform health education practices by providing direct care to the community, so that people seek welfare, social participation and representation and empower the actions related to health.\textsuperscript{15}

In this context, continuing education has been linked to the maintenance of competence for nurses.\textsuperscript{23} Abilities categorized in educational competence are especially useful to facilitate the operation of orderly at APC, with regard to the attributes that are necessary to plan and implement training as a way to qualify the nursing care and characterize them as mental activity and intellectuals who meet the capacity and ability of the worker to mobilize knowledge
and mental resources to resolve complex situations that occur in professional life. 15

Abilities categorized in managerial competence

In the category of managerial competence, after refinement, the abilities selected were: core competences or competitive advantage; coordinate its base; coordinate the nursing staff; supervise the team; evaluate the activities carried out by all the nursing staff; analyze the results of the actions, in order to adapt them to specific needs; perform evaluation of the activities according to the results presented; possess technical and scientific knowledge to train people; create, implement and evaluate projects with specific standards and protocols for the practice of nursing; have strategic vision; perform the assistance in order to facilitate interpersonal interaction and respecting interdisciplinary; prioritize humanization in the conduct of assistance as a means of facilitating the relationship with the client; encourage the patient's participation in decision-making in relation to actions to improve the quality of care; plan, implement, and re-evaluate the performance of actions taken to readjust the needs; have knowledge of management staff in attendance Pre-hospital emergency; participate in interdisciplinary teams in the area of pre-hospital emergency Care; Learn to deal triage at the scene, facilitating the attendance; Learn to deal the attendance of patients in critical condition; implement and manage the programs of emergency; have availability to carry out targeted actions; elaborate monthly scale; strategic vision; political ability. 1-6,15,18,20,24

These abilities represent aspects of capacity that the nurse must have to perform the management, supervision and monitoring of activities carried out by the team. This competence is relevant to the maintenance of the quality of care based in the line of duty and mutual respect, as well as in the professional hierarchy. 15 Throughout the ages, nurses have assumed managerial positions in health services, making it necessary to define and develop managerial competence in practice scenarios. 20

The abilities identified in the managerial category require the nurse's knowledge, experience, confidence, ability to work in teams, problem solving, self-development, interpersonal relationship, commitment and respect within the team, besides listening. 15

These abilities involve interpersonal relationship, in which the communication in this context it is essential to resolve conflicts and to contribute to the care, being associated with the power of influence on the development of people and organizational performance. 17,24

The abilities listed in the management category facilitate communication development, relationship between professionals, sharing experiences fragmented within the work. The educational practice carried out by nurses in the daily life of assistance emphasizes the transmission of information and change of behaviors of individuals. However, the literature has pointed to the fact that the nurses' knowledge about the process of managerial work is still in its infancy, before its importance and complexity. 17

The nurses, while leaders of the nursing staff should be used the ability of communication to promote teamwork, as well as to enhance the possibility of effective assistance and free of risks to patients. 25

The data highlighted in this research showed that, in the APC, the abilities listed in each category of competence identified when used associates and according to the specificity of the emergency, demonstrate effectiveness, which strengthens the importance of skills found in this review.

The results of the study showed significant changes in the scientific knowledge levels of Nursing, training, technology and philosophy, reflected from the capacity and ability to mobilize a set of knowledge to address effectively a number of general and specific situations in implementing the individual care, the family and the community. 26

CONCLUSION

This research identified the competences needed by nurses for the Pre-Hospital Care and sorts the categories and their abilities according to the technical/assistance, cognisitive, managerial, educational, and international competences.

The conceptions of competencies in nursing different meanings as a function of professional and ability to perform the task with quality, involving knowledge, experience as well as personal values.

The insertion of a nurse at APC can identify changes and expansion of the operation, however most of the abilities are still linked to the technical assistance aspects. To inquire about the progression of this expansion to other abilities because for the nurse, is not enough technical competences; it is necessary to understanding people and societies to better coordination and oversight of human resources, which reinforces the importance of
inclusion and use of the competences identified in this study.

The competences identified in this study are important as they contribute to the clarification of essential elements and abilities that nurses must possess to meet the specific needs of pre-hospital emergency area.

With this study, it was realized the importance of the production and use of research related to this issue in order to generate new knowledge. The findings arising from the research can help nurses to take informed decisions and thereby contribute to the scientific and technical development of Nursing.

REFERENCES
