

Emergency nursing (6): the research potential of specialized nursing in an emergency department

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Interest in research among nursing professionals is increasing given its importance for the advancement of their profession. Recent changes in university and post-graduate programs have favored the incorporation of research as a fundamental part of the nursing profession.

It was Florence Nightingale who, during the Crimean War (1853-1856) and using her extensive knowledge of various sciences, both natural and social, investigated how to improve the physical and mental well-being of wounded soldiers¹. She collected and analyzed data on morbidity and mortality of the wounded and this allowed the introduction of changes in the society of the time, and the subsequent establishment of the Nightingale Training School for Nurses. In Spain, the first such institution was the Santa Isabel Hungría School of Nursing, created in 1895, modeled on that of Florence Nightingale, although the qualifications it offered were not official degrees². In 1915, the official title of qualified nurse was approved, involving a program of knowledge and an examination of theory and practice by the Faculty of Medicine. In 1977, after many changes, a university Diploma in Nursing (DUE in Spanish) was established in Spain. A royal decree in 2007 restructured university nurse training into 3 levels: degree, master's degree and doctorate in nursing³. Professional nursing organizations, consequently, have established the role of nurses in research according to their academic level⁴ (Table 1).

While all these changes have helped foster research in the nursing field, the nursing profession

has for decades been based more on tradition and experience than scientific evidence⁵. Thus, nurses in general have not had much training in research or in critical reading of scientific articles. These academic limitations together with the lack of institutional support, lack of time and resources, and the unfavorable attitude of some colleagues, have led to questions about the ability of nurses to perform research⁶.

The purpose of nurse-led research

Nurse-led research is a systematic scientific process of validating and improving existing knowledge that has direct and indirect effects on nursing practice. The objective must be related to usefulness, with improved patient care and the development of professional autonomy. In the field of health, there is a growing demand for quality service and in the absence of increasing resources, it is necessary to assess nursing interventions (prophylactic or therapeutic) and selectively employ those that have demonstrated their effectiveness. The intention is to prevent inadequate procedures and reduce risks and unnecessary costs.

We consider nursing research as an emerging process aimed at improving patient care practices. It focuses on the patient, family and community, and therefore includes both the sick and the healthy. It covers all areas of experience, interest and knowledge of nursing, as well as issues that contribute to professional development and solu-

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Table 1. Nurse participation in research according to level of academic training

Academic training	Research functions
Diploma	Locate and critically appraise studies, evidence-based guidelines, protocols and policies, with help. Use the best research evidence in practice, with help. Assist in the identification of problems and in data collection.
Master's	Critically evaluate and select studies, and review protocols for practice. Implement the best research evidence in practice. Collaborate on research projects and provide clinical expertise.
DNP doctorate	Critically assess and improve protocols and policies for practice. Participate in the development of evidence-based guidelines. Implement, evaluate and revise protocols, policies and guidelines based on evidence in practice.
PhD	Assume an important role in independent research and contribute to empirical knowledge obtained from research in a selected area of study. Obtain funding for research. Coordinate research teams of nurses with lower academic levels.
Post-doctorate	Assume a leading role in a funded research project as a recognized expert in an area. Serve as a mentor for PhD students.

Table adapted from a publication by the American Nurses Association (1989). Education for participation in nursing research and the American Association of Colleges of Nursing (AACN. 2006). AACN Position Statement on Nursing Research.

tions to problems encountered in daily practice. Protocols have been developed to unify criteria and systematize activities and interventions based on scientific evidence. The possibility of error is thus reduced, which increases efficiency. We may add that nursing research is also needed to generate knowledge in education, health administration, the characteristics of different diseases and nursing roles, and to provide quality learning experiences.

In accordance with the work of Acosta and Medina⁷, priority lines of nursing research should focus on achieving: a) greater general population health (health promotion and disease prevention), b) better patient care (quality indicators, clinical research and techniques), and c) increased professional development (management, training, development etc.). For this, the strategies of the International Council of Nurses (ICN)⁸ for nursing research are relevant. The common aims include: a) support of national nursing associations (ANE) and continue working with the World Health Organization (WHO) and recognized non-governmental organizations (NGOs), b) favor an international network of nurses with capacity to carry forward the international agenda, c) promote access to the internet and thus documents and international communication, and d) promote publication of research work in international journals.

All these aspects are aimed at development of the nursing profession at local and international levels.

Research in an emergency department (ED)

From our experience, nursing research and support for such activity in the ED is generally difficult to achieve. In principle, the advantage is the sheer volume of patients and range of medical conditions, which means a host of potentially eligible subjects for inclusion in a study. However, the resulting work-load means that our healthcare function absorbs all our time, leaving none for the research function. As a rule, we can rarely consider the possibility of performing a multicentre, multidisciplinary study in the ED, unless a health professional is specifically assigned to the task.

In this regard, we (the authors) recently joined a research project being conducted jointly by the Hospital Clínic of Barcelona and the University of Basel. In this project, approved by the Committee for Clinical Research Ethics (CEIC) and coordinated by emergency physicians, our hospital ED acts as a patient recruiter for two clinical protocols studying chest pain and syncope, respectively. Apart from being an institutional challenge, this collaboration represents a milestone. For the first time in Spain, an ED service has contracted a dedicated full-time research nurse to carry out the activity. This position, which the authors share during the first year of the project, involves intense work. Our functions include the selection of patients, assessment of inclusion/exclusion criteria, providing information about the study, obtaining informed consent, data collection, obtaining samples and handling and storage, monitoring selected cases, ensuring availability of all necessary materials and delivery to the designated destination. Data interpretation will be performed by other international, multidisciplinary teams, but we are all committed to share and discuss the results at different stages of the protocol.

This new project in an ED involves a change in the usual work dynamic for all the ED professionals. Routine attendance continues and the research activity may somewhat hinder that. In fact, barriers to research or limitations have been studied and outlined (Table 2). So the research tasks for this project are well-defined and made known to all. It is likely that this initial experience facilitates the development of new research collaborations in which the research nurse's role is crucial. Thus, clinical trials, the gold standard in research, will only be contemplated if skilled nursing profes-

sionals are available to carry them out. Therefore, ED staff and nurses in particular should not let the opportunity pass them by. Rather, research should become a priority for the development of these services.

Finally, many ED studies are not nurse-specific (aimed at patient care) or autonomous. They focus on scientific medical diseases and our role is mostly supportive and collaborative. There are basically three types of nurse participation: a) Assistant (data collection for other professionals), b) technological resources expert (diagnostic and therapeutic procedures), and c) caregiver (responsible for the care and welfare of the patient). However, we should not renounce the possibility of future research projects focused on our own profession.

Expectations

We believe that the growing importance of theory and practice in nursing research in the current training curriculum will give rise to professionals specialized in the matter, and they will develop unique research strategies. At present, the number of articles published in nursing journals shows less research production from ED and critical care nursing staff than from nurses in other departments. However, a recent article by our colleague Montse Amigó⁹ shows that in the last 5 years research by ED nurses has begun to appear internationally, with articles in English and the internet, consolidating the vital role of nursing staff in emergency care and protocols. Even so, nurse researchers must continue to disseminate the results of their research and make it more visible in

Table 2. Barriers to research by nursing professionals

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- Late incorporation of nursing studies at university level in Spain.
 - Lack of nursing journals with scientific content.
 - Inadequate institutional framework, and lack of support.
 - Scarcity of resources (time, budget) for nurses.
 - At the professional/personal level, lack of training and awareness.
 - Timetables.
 - Cultural pressure for nurses to remain in the role of caregiver.
 - Lack of motivation and experience.
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the scientific world. The training in research that new professionals receive opens doors and leads to improving care and the quality of health centers.

Conclusions

The theoretical and practical development of nursing studies confirms the importance of nursing research as an emerging discipline applicable to all services. The challenge is to become an active part of the professional research process, especially for professionals working in the ED of a tertiary hospital. The practical impossibility of combining research activity with patient care or teaching functions has been repeatedly demonstrated. It is therefore important that the research function is performed by dedicated nurses, as indeed is already the case for teachers. Research has always been the innovative sector in the world of medicine and an important economic stimulus. It should be encouraged for progression in this field to continue. The nursing perspective, with nurses as principal investigators or members of multidisciplinary teams, is important and can provide novel insights. It just needs time to bear fruit.

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