

## SCIENTIFIC PRODUCTION OF NURSE CLINICIANS MEDIATED BY A RESEARCH ADVISORY GROUP

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*This study reports on the activities developed within the Nursing Research Nucleus (NUPE) of a public school hospital and the scientific production of nurses during the period from 1999 to 2002. For this purpose, data regarding the preparation of professionals and scientific production during this period were obtained from the primary document sources of NUPE and the Human Resources Advisory Group. Nurses elaborated, alone or in collaboration with nursing students and teachers, 129 research projects, and 151 scientific studies were presented on the occasion of different events, 6 of which received a prize. Sixty-three scientific studies were submitted for publication and 36 were published. During this period, all nurses concluded a specialization course and some of them enrolled for a master's or doctoral program. In conclusion, NUPE boosted the scientific production of the institution, with repercussions on nurses' personal and professional development.*

*DESCRIPTORS: nursing research; nurse clinicians; periodicals; nursing*

## PRODUCCIÓN CIENTÍFICA DE ENFERMEROS CON EL APOYO DE ASESORÍA EN INVESTIGACIÓN

*El texto describe el contexto, la recopilación de informaciones y el análisis de actividades desarrolladas en el Núcleo de Investigación en Enfermería (NUPE) de un hospital-escuela público en el Norte del Paraná, referente al período de 1999 a 2002. La producción científica de enfermeros asistentes, mediada por ese núcleo, constituyó el foco de análisis, por ser considerada de importancia fundamental para la formación profesional permanente. La recopilación de informaciones fue realizada en fuentes documentales primarias del NUPE. Se verificó que los enfermeros elaboraron, aisladamente o en conjunto con alumnos y profesores de enfermería, 129 proyectos de investigación. Fueron presentados 151 trabajos científicos en diversos eventos, con 6 premios obtenidos. Fueron encaminados para ser publicados 63 trabajos científicos, de los cuales 36 fueron elegidos. En el período investigado, todos los enfermeros concluyeron Cursos de Especialización, estando algunos realizando Maestría o Doctorado. Se concluyó que el NUPE ayudó a elevar la producción científica en la institución, con repercusiones en el desarrollo personal y profesional de los enfermeros.*

*DESCRIPTORES: investigación en enfermería; enfermeras clínicas; publicaciones periódicas; enfermería*

## PRODUÇÃO CIENTÍFICA DE ENFERMEIROS ASSISTENCIAIS COM APOIO DE ACESSORIA EM PESQUISA

*O texto descreve o contexto, a coleta de informações e análise de atividades desenvolvidas no Núcleo de Pesquisa em Enfermagem (NUPE) de um hospital escola-público, no norte do Paraná, referente ao período de 1999 a 2002. A produção científica de enfermeiros assistenciais, mediada por esse núcleo constituiu o foco dessa análise, por ser considerada de importância fundamental para a formação profissional permanente. A coleta de informações se deu em fontes documentais primárias do NUPE. Verificou-se que os enfermeiros elaboraram, isoladamente ou em conjunto com alunos e professores de Enfermagem, 129 projetos de pesquisa. Foram apresentados 151 trabalhos científicos em diversos eventos, com seis premiações. Foram encaminhados para publicação 63 trabalhos científicos, sendo 36 publicados. No período investigado, todos enfermeiros concluíram Curso de Especialização, estando alguns realizando mestrado ou doutorado. Concluiu-se que o NUPE contribuiu para alavancar a produção científica na instituição, com repercussões no desenvolvimento pessoal e profissional dos enfermeiros.*

*DESCRITORES: pesquisa em enfermagem; enfermeiras clínicas; publicações periódicas; enfermagem*

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## INTRODUCTION

In a context of constant technical-scientific innovation in different health knowledge areas, Nursing research is an important space for reflection and transformation of professional practice.

Until recently, research was mainly developed by faculty of undergraduate Nursing courses, affiliated with Brazilian universities<sup>(1)</sup>. Since the 1990's, nurse clinicians have started to take *stricto sensu* graduate courses and, in their search for knowledge, have also been inserted in research practice. These professionals invest in these courses because they represent resources that can grant quality, credibility and efficacy to their practice<sup>(2)</sup>.

In order to cope with deficiencies in their academic formation, as well as personal and institutional obstacles, nurses develop research, individually and/or jointly, in an attempt to get to know and apply the scientific method<sup>(3-4)</sup>. In this respect, nurse clinicians' participation in scientific events, to disseminate research and professional experiences, deserves special attention. This attitude is directly related to the belief in the importance of research practice for personal and professional improvement<sup>(1,5-6)</sup>.

However, great efforts are still needed to deal with the gap between knowledge production by academic researchers and its use in Nursing care institutions<sup>(7)</sup>. Nurse researchers evidence the importance of demystifying and dethroning researchers as an essentially academic practice<sup>(7-8)</sup>.

Therefore, it is fundamental to encourage and involve a continuously increasing number of nurse clinicians in activities that allow not only for the use, but also for the development of new studies, with a view to advancing the profession.

A recent aspect is health services, hospitals and basic health units' interest in qualifying their staff, supporting nurses to do research by forming study groups, creating research nuclei, taking extension courses, implementing research commissions and study and research centers, among other initiatives<sup>(3-4,9-12)</sup>.

In Brazil, experiences aimed at enabling nurse clinicians to develop research activities have been going on in public and private services, called research advisory groups<sup>(12-14)</sup>.

At the University Hospital (UH) of Londrina State University, in January 1999, the Nursing Administration implanted the Nursing Research

Nucleus – NUPE, to encourage and support nurses working at the institution to do research. After four years of functioning, marked by many activities, challenges and conquests, the history of NUPE, as an innovative service in the area, associated with the nurses' and the institution's efforts, deserves to be registered and its results should be evaluated.

This gave rise to the need to examine the results achieved since the implantation of NUPE, focusing on the nurses' scientific production. In this article, we synthesize a part of this research in the form of a succinct description of NUPE's functioning and activities, as well as an analysis of scientific production by nurses at the UH, from 1999 to 2002, which was classified as elaborated, presented, published and distinguished scientific studies.

The same research also considered nurses' insertion in graduate courses as an activity that includes research as an important component of professional formation.

## CONTEXT AND METHODOLOGY

The University Hospital is a public teaching hospital of Londrina State University (UEL). The UH offers 289 beds and attends all medical specialties, with a monthly average of 9,100 outpatients, 7,900 emergency care patients, 1,000 hospitalizations and 600 surgeries. The hospital community consists of 1650 employees, 350 teachers and 1500 students.

In 2002, the Nursing Administration's staff list corresponded to 21% of UEL's human resources and 44% of UH human resources, with 87 nurses and 436 nursing technicians and auxiliaries.

We carried out a descriptive study. Data were collected from primary documentary sources at NUPE and at the Technical and Human Resource Advisory Group of the Nursing Administration. This information was confronted with reports from other studies obtained in literature. This project was approved by the UEL Research Ethics Committee.

Data were processed as frequencies and simple percentages and are presented below as figures.

## CREATION OF THE NURSING RESEARCH NUCLEUS

Considering that research not only stimulates transformations in nursing, but also encourages

professionals to expand their knowledge and can provide satisfaction at work<sup>(11)</sup>, in January 1999, the UH Nursing Administration created the Nursing Research Nucleus (NUPE).

NUPE was constituted as an Advisory Service to the Nursing Administration, coordinated by one faculty member of the Nursing Department at the UEL Health Science Center, with full-time dedication to this activity.

The aims of this Research Nucleus are to:

- Insert the exercise of action-reflection-transformation into the work process of UH nurses, by using the scientific method.
- Offer scientific and administrative support to these professionals for executing, presenting and publishing scientific studies.

In order to comply with the nurses' expectations in a resolving way, the coordination and secretary of NUPE, with one technical-administrative employee, developed the following activities: promotion of individual and collective meetings, lectures, workshops and courses on scientific methodology; technical support to perform on-line searches for bibliographic references; typing and layout of studies; formatting and submission of articles/abstracts to scientific events and publications; dissemination and support for presenting scientific studies at national and international events; orientation and sending of scientific studies for grammatical, bibliographical and statistical correction; orientation and elaboration of audiovisual resources (slides and posters); accompaniment of research project formalities at different levels (Nursing Administration, Graduate Coordination and Ethics Committee); promotion of Annual Scientific Encounter to disseminate research carried out by the nurses; internal dissemination of scientific studies on the Nursing Administration's notice board; organization and monitoring of research lines at the Nursing Department; survey and updating of database about the nurses' scientific production; support for research project elaboration and research development.

Activities happened through a partnership between NUPE and the nurses. The Nucleus was responsible for advising them, while they committed themselves to carrying out, applying and disseminating the research they developed.

On the average, nursing staff members at the UH Nursing Administration amounted to 88 nurses per year, who were active at the institution in different

sectors. These professionals possessed the following characteristics: mainly women (92%); work time at the institution ranging from less than 1 year to more than 30 years, with 42 (43%) nurses who started to work at the UH from 1991 to 1995 onwards. During the four years considered in this study, 75 (82%) nurses used NUPE activities. These professionals used NUPE advice more than once during this period.

A number of limits have to be acknowledged when presenting and discussing the scientific production of nurse clinicians, due to the lack of publications about this theme and to the incipient representativeness of these professionals in the scientific nursing community<sup>(12)</sup>. In order to assess the study proposal, going beyond the strictly numerical meaning to reach what often is not manifested in the production but in the process the subjects of the action experienced, we attempted to evidence the results found beyond a quantitative comparison, discussing the importance of these activities and the rules established by the scientific community in making efforts to expand nursing knowledge.

Among the information collected for analysis, the elaboration of research projects supported by NUPE is of fundamental importance, as presented in Figure 1.

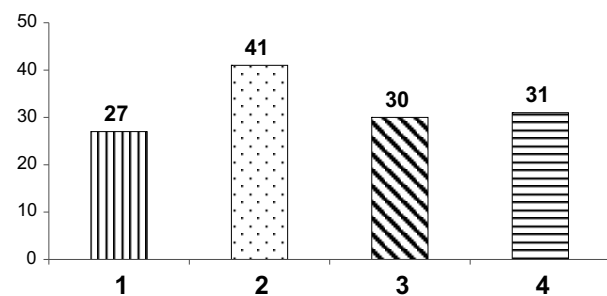


Figure 1 - Research Projects elaborated by nurse clinicians from 1999 to 2002, Londrina, 2003

Figure 1 shows that 27 (21%) research projects were elaborated in 1999, 41 (32%) in 2000, 30 (23%) in 2001 and 31 (24%) in 2002, totaling 129 projects. It should be emphasized that, in the second semester of 2001 and first semester of 2002, Londrina State University went through a six-month strike, which affected the professionals' care and scientific activities. The higher quantity of projects in 2000 was probably associated to several nurses' great interest, at that time, in developing research at the institution, as well as their motivation to take stricto sensu graduate courses.

Nursing researchers discuss that the knowledge needed to conduct research and different forms of use cannot be summarized in scientific methodology courses for students and nurses. There is a need to adopt the notion that, in science, nothing is definitive and immutable. It is essential for professional develop to master research methods, which include search tools, critical analysis and the search for new knowledge<sup>(12)</sup>. Thus, elaborating a research project allows nurses a moment of reflection about their concerns and inquiries arising from daily professional practice, which requires that they learn and/or improve their knowledge about the scientific method, its modalities and applications.

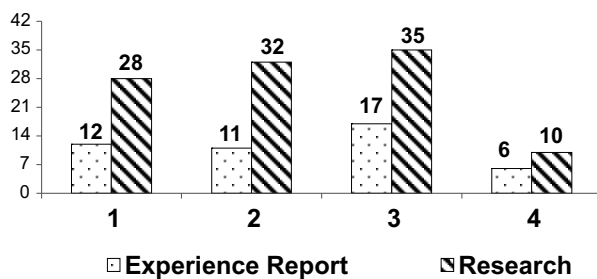


Figure 2 - Scientific studies elaborated by nurse clinicians from HURNP from 1999 to 2002, Londrina, 2003

In line with NUPE's objectives to support the realization of scientific studies, Figure 2 shows a gradual increase between 1999 and 2001. The increase in scientific studies during this period took the form of research, from 28 (18.54%) to 35 (23.17%), as well as experience reports, from 12 (7.9%) to 17 (11.5%). The year 2002, on the other hand, showed an accentuated fall in production, decreasing to 6 (3.97%) reports and 10 (6.62%) research studies. The explanation for this fact is directly associated with the increase the institution went through when the elections took place and the UH administration boards took office, a situation that created expectations among the nurses and slowed down activities while they were waiting for new political guidelines at the service.

A study carried out to encourage and stimulate nurse clinicians from a university hospital to participate in educational practices in research methodology, by means of individual and group activities aimed at scientific research competency development, showed 28 scientific products, including research and experience reports, as a

result of this teaching and learning process. It was observed that, although the nurses' scientific production remained below expectations, the experience was an opportunity to share the participants' enthusiasm with the training group, through discussions and debates that motivated involvement, creativity and the desire to learn and share knowledge<sup>(12)</sup>.

Nurse clinicians need to master knowledge about research methods. This condition must be granted to all professionals and should not remain limited to those people who can take a graduate course<sup>(7)</sup>.

In this study, nurses' scientific production revealed higher frequency levels for research than for experience reports. It should be highlighted that nurses' first contact with NUPE was often aimed at describing a professional experience. Studies presented and published by nurse clinicians in the form of experience reports do not invalidate but, instead, contribute to the understanding of professional practice<sup>(10)</sup>. We agree with other nurse researchers that these reports express daily reality in nursing and allow for knowledge construction based on a bibliographic reference framework, and also for the recording of situations, knowledge and actions in nursing practice<sup>(12)</sup>.

The nurses presented their studies at different scientific events. Most of these events were related to health or education and happened at the local, state or national level. The highest number of studies was presented in 1999 (109 or 31.41%). In the following years, the number of studies presented varied between 75 and 87 per year, totaling 347 studies presented at 72 scientific events during the period of study.

It is known that nurse clinicians have disseminated their studies more frequently at scientific events than in publications<sup>(5)</sup>. We observed the same situation in our research, which can be explained by the fact that disseminating a study during a scientific event, whether orally or as a poster presentation, is still more accessible to professionals due to their difficulties to write an article, submit it and, mainly, to obtain approval for publication in nursing and health journals.

We also found that many of the nurses supported by NUPE submitted manuscripts for publication, as shown in Figure 3.

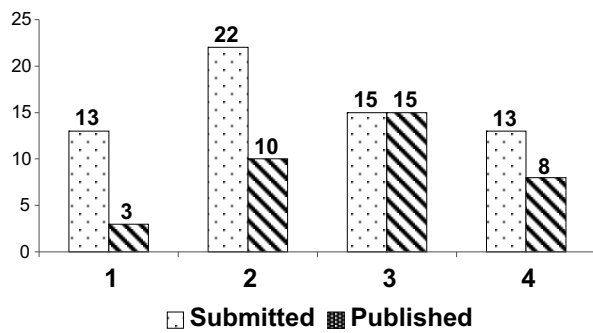


Figure 3 - Articles Submitted for Publication and Articles Published from scientific studies by nurse clinicians at the HURNP from 1999 to 2002, Londrina, 2003

During the year NUPE was implanted, 13 (20.7%) articles were submitted for publication and three (8.33%) that had been submitted by the nurses on an earlier occasion were published. The highest number of article submissions was found in 2000 (22, corresponding to 34.9% for the period) and 10 (27.8%) were published in the same year. The highest number of publications occurred in 2001, when 15 (41.6%) studies were published. In 2002, 13 (20.6%) articles were submitted and eight (24.4%) were published.

The apparent divergence between submitted and actually published manuscripts can be justified by the limited number of Nursing journals in Brazil, some of which are regularly issued and a large majority with bimontly or semestral circulation, due, among other factors, to high costs. This situation implies the reception of a high number of articles, often restricting participation and leading to a slow publication. This has often caused a considerable delay between the submission, final acceptance and publication of the article. Other difficulties include compliance with journal instructions, clear and objective writing and, mainly, the theoretical-methodological quality of the articles. However, we believe this information is an alert, that is, it highlights the importance of continuous support to nurses, so that they do not give up and always attempt to achieve the desired quality levels, thus conquering spaces in journals and other dissemination means.

We agree that disseminating nursing research results through journal publications facilitates access by peers, so that they can assess the contributions made by individuals and academic institutions in the knowledge area<sup>(7)</sup>. In this sense, NUPE supported and encouraged nurses with a view to the broad dissemination of knowledge and experiences,

publishing them in print and on-line periodicals, journals and bulletins in the health area.

In a study carried out among nurses from public and private institutions, researchers on this theme found that professionals from private institutions publish more, possibly because they have better work conditions and because less professionals have two jobs. This certainly stimulates an increase in scientific production, together with other stimulating measures<sup>(15)</sup>.

We also found that all nurses who had not taken a specialization course yet took one during the study period. Moreover, 11 professionals were taking a Master's program and two a Doctoral program. This evidenced the nurses' strong interest in their technical-scientific training, which was supported and encouraged by the institution.

With respect to research lines, which are being organized, we observed that, in this group of nurses, there was a clear tendency towards care themes, followed by management and education. However, there is a need for a more profound analysis of this aspect in view of the initial stage of these professionals' scientific production, so as to articulate the knowledge with research groups and lines at the institution.

## FINAL CONSIDERATIONS

Between 1999 and 2002, nurses at the Londrina UH, either alone or in partnership with nursing faculty and students, elaborated 129 research projects and 151 scientific studies, which were presented at national and international events. Moreover, 63 manuscripts were submitted for publication, 36 of which were published and 06 distinguished. These nurses also demonstrated a growing interest in stricto sensu graduate courses.

Although this picture is encouraging, we believe that there is still a long way ahead to achieve an actual improvement in scientific research by nurse clinicians, from different aspects, ranging from quality and methodological rigor to the perception of the need to construct and use new knowledge in their professional activities.

Literature about "research among nurse clinicians" mentions the great conflict these professionals face between personal and institutional desire and ability to accomplish this practice, which is

felt as necessary for professionals and for the profession<sup>(6-7,16)</sup>. There are still many limits to research development, resulting from university training, access to graduate programs, support from employers and the professionals' interest and initiative<sup>(4,7,10,12)</sup>.

However, this is a good time to put innovative proposals into practice, which turns the permanent education process in nursing more dynamic, stimulating and promoting the development of research competencies on the basis of care practice needs. Research must be considered as a skill whose

development should be encouraged, and not merely as an inherent and natural nursing activity. The attitude of encouragement and mediation by an advisory group or equivalent sector can contribute to the qualitative leap that is needed in knowledge production, dissemination and application in the area<sup>(12-13)</sup>.

Thus, there is a need for further studies to assess ongoing proposals, involving quantitative and qualitative aspects, verifying possibilities and limits and, mainly, producing knowledge that increasingly mobilizes the achievement of a better quality of health care in our society.

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