

PATIENT SAFETY: ANALYSIS OF RESEARCH GROUPS

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ABSTRACT: The present study aimed to assess the characteristics of research groups of the Brazilian National Council for Scientific and Technological Development specialized in patient safety in health and nursing fields. Documentary, descriptive exploratory study of quantitative approach carried out through access to all Brazilian research groups registered at the CNPq Research Groups Directory. Data collection occurred in December 2015; data were stored in a Microsoft Excel spreadsheet® and analysis resulted in the identification of 22 research groups. Mobilization and search for knowledge combined with care practice, teaching and research are essential to develop actions that improve the healthcare system at the national level, with the primary objective of ensuring patient safety.

DESCRIPTORS: Patient Safety; Nursing; Research Groups; Education; Research in Nursing.

SEGURANÇA DO PACIENTE: ANÁLISE DOS GRUPOS DE PESQUISA

RESUMO: O objetivo desse estudo foi verificar as características dos grupos de pesquisa do Conselho Nacional de Desenvolvimento Científico e Tecnológico que trabalham com a segurança do paciente na área da saúde e na enfermagem. Trata-se de um estudo documental, exploratório-descritivo, de natureza quantitativa, realizado por meio do acesso de todos os grupos de pesquisa do Brasil cadastrados no Diretório dos Grupos de Pesquisa do site institucional. A coleta de dados ocorreu em dezembro de 2015, os dados foram armazenados em planilha da Microsoft Excel® e a análise resultou na identificação de 22 grupos de pesquisa. A mobilização e busca do conhecimento articulado com a prática assistencial, ensino e pesquisa são essenciais para se realizar e desenvolver ações que transformem o contexto da saúde em âmbito nacional, tendo a segurança do paciente como principal objetivo.

DESCRIPTORIOS: Segurança do paciente; Enfermagem; Grupos de pesquisa; Educação; Pesquisa em Enfermagem.

SEGURIDAD DEL PACIENTE: ANÁLISIS DE LOS GRUPOS DE INVESTIGACIÓN

RESUMEN: Estudio cuya finalidad fue verificar las características de los grupos de investigación del Consejo Nacional de Desarrollo Científico y Tecnológico que se dedican a la seguridad del paciente en área de salud y en enfermería. Es un estudio documental, exploratorio y descriptivo, de naturaleza cuantitativa, realizado por medio del acceso de todos los grupos de investigación de Brasil registrados en el Directorio de los Grupos de Investigación del site institucional. Los datos fueron obtenidos en diciembre de 2015 y almacenados en planilla da Microsoft Excel® y el análisis resultó en la identificación de 22 grupos de investigación. La movilización y búsqueda del conocimiento articulado con la práctica asistencial, enseñanza y investigación son esenciales para realizar y desarrollar acciones que cambien el contexto de la salud en ámbito nacional, siendo la seguridad del paciente el principal objetivo.

DESCRIPTORIOS: Seguridad del paciente; Enfermería; Grupos de investigación; Educación; Investigación en Enfermería.

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● INTRODUCTION

Global concern with safety in the customer service in healthcare is stimulating the development of policies aimed to improve clinical practice, as well as to foster research related to patient safety.

Although patient safety has been discussed for many years, focus on this issue has become evident only in 1991 with the publication of the outcomes of the Harvard Medical Practice Study⁽¹⁾. In 2000, safety in patient care has become a priority subject in the healthcare area and has been discussed by researchers all over the world in the search for scientific evidence⁽²⁾.

In 2005, given the great impact of the subject worldwide, the World Health Organization (WHO) created the program World Alliance for Patient Safety to encourage and disseminate safety practices in healthcare and establish the development of research based on scientific evidence targeted to patient safety⁽²⁾.

One way to develop research is through the creation of groups of researchers, professors, doctors, masters, specialists, students and technicians of the same study area. In order to regulate these groups, the CNPq Research Groups Directory was created, in 1992, with three main objectives: become an effective instrument of information exchange; be an inexhaustible source of information on the subject and a database that preserves the country's technical and scientific memory⁽³⁾.

Therefore, the research groups are the locus of knowledge production, exploring the opportunities for research and coordination public and institutional policies⁽⁴⁾. In nursing, these groups ensure that the relevant studies are applied in health care, and hence constitute a key patient safety strategy⁽⁵⁾.

The search for studies, strategies and actions aimed to ensure the safety of patients while under the care of the health team has been officially introduced in 2002 by the World Health Organization (WHO)⁽⁶⁾. The Organization was responsible for establishing standards and providing support to the countries in the elaboration of policies and practices related to patient safety.

Publications of the World Health Organization warned the scientific community on the risks posed by the care delivered by health services. Thus, several health areas have developed groups and initiatives targeted to patient safety, to ensure that care is provided safely and without causing damage⁽⁷⁾.

In Brazil, the Ministry of Health launched in 2013 the *Programa Nacional de Segurança do Paciente*⁽⁸⁾ (PNSP), whose general objective is contributing to improvement of healthcare, through the *Comitê de Implementação do Programa Nacional de Segurança do Paciente* (CIPNSP), responsible for recommending studies and research related to patient safety.

In view of the aforementioned, the present study aimed to assess the characteristics of CNPq Research Groups focused on patient safety in the fields of health and nursing.

● METHODOLOGY

The study is a descriptive, exploratory and documentary research with a quantitative approach. Documentary research is a method based on original documents (primary sources) that have not been previously analyzed, evaluated or criticized by other authors⁽⁹⁾. The procedures use methods and techniques aimed to apprehend, understand and analyze several types of documents⁽¹⁰⁾.

The stages for documentary collection of this descriptive research observed the following steps: access to CNPq site (<http://www.cnpq.br>); then access to the topic CNPq Research Groups Directory at item *Base Corrente* (current database). At the *Base Corrente* screen, the option *Grupos* (Groups) was selected and the combination of keywords was inserted in the research box⁽¹¹⁾.

Data was collected in December 2015, through search of all Brazilian research groups registered at CNPq Research Groups Directory version 5.0⁽³⁾, using the following keywords: patient safety, health, nursing and technology in the parametric search on its current database. Besides, the search filter selected was the broad field area as health sciences, in order to maximize and comprise all the groups. For this search, the filters of parameterized query, such as name of the group, name of research line,

keyword of the line of research and certification status not updated were used in order to search the query fields of the groups.

The inclusion criteria for the research groups were as follows: groups registered at CNPq Research Groups Directory site during the month of access and certified by the institution and connection with the theme “patient safety”, in the research group’s name or in their respective lines of research. Certification of research groups is of responsibility of the leaders of the research activities of the institution to which the group leader is attached⁽³⁾. Thus, groups not certified by the institution was the exclusion criterion.

These steps allowed the identification of the research groups involved with the theme Patient Safety in Brazil. In the first query, 58 research groups on the theme were identified. Of these, thirty-six groups were excluded because they were not focused on the theme or not certified by the institution.

Figure 1 illustrates the process designed to search the groups A total of 22 groups that met the specified criteria were found in CNPq databases.

Data was collected through completion of a form. The information was typed using a tool developed with Microsoft Office Excel® 2010, with the purpose of creating a database, extracting the following data: identification of the group, average composition of the members (researchers, students, technicians), year of formation of the groups, partnership with a foreign institution, institution and the state.

The data obtained were grouped in tables and charts for better visualization of their representation. The results of all the research groups were analyzed by descriptive statistics using relative and absolute frequency calculations and later discussed in the light of pertinent literature.

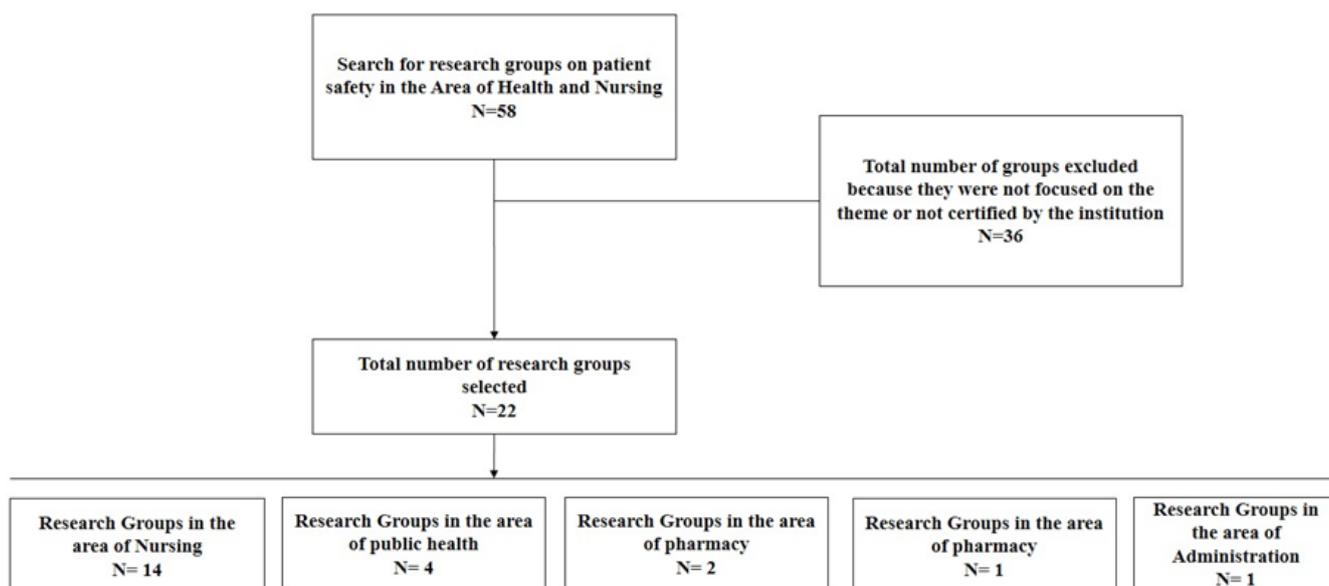


Figure 1 - Process used to search the groups. São Carlos, SP, Brazil, 2016

● RESULTS

Based on the data collected in the CNPq Research Groups Directory, 22 research groups were selected (Table 1), resulting in a total of 71 research lines on the theme.

Nursing is the area that concentrates the largest number of studies on patient safety with fourteen research groups (64%) in total, and the Southeast region is the leading Brazilian region in research on the subject, according to Figure 2.

Concerning the institutions, the highest number of research groups or lines were formed in federal institutions, totaling fourteen (64%), followed by private institutions, with four groups (18%), state

Table 1 – Research groups in Patient Safety. São Carlos, SP, Brazil, 2016 (continues)

Year of creation	Name of the group	Area	Higher education institution (IES)/ Abbreviation
1990	Grupo Pesquisa Clínica, Tecnologias e Informática em Saúde e Enfermagem (Group Clinical Research, Technologies and Health and Nursing Informatics)	Nursing	Universidade Federal de Santa Catarina - UFSC
1991	Núcleo de Estudos e Pesquisa de Enfermagem em Prevenção e Controle de Infecções Relacionadas à Assistência à Saúde (Center of Studies and Research in Nursing in Prevention and Control of Infections Related to Health Care)	Nursing	Universidade Federal de Goiás - UFG
1993	Enfermagem Unidade de Terapia Intensiva (UTI) (Nursing in Intensive Care Unit (ICU))	Nursing	Universidade de São Paulo - USP
1996	Núcleo de Estudos e Pesquisas em Infecções Relacionadas ao Cuidar em Saúde - NEPIRCS (Center of Studies and Research in Infections Related to Health Care – NEPIRCS)	Nursing	Universidade Federal de Minas Gerais - UFMG
2000	Assistir/Cuidar em Enfermagem (Assist/Care in Nursing)	Nursing	Universidade de Pernambuco - UFPE
2004	Grupo de pesquisas de enfermagem em segurança do paciente, cuidados intensivos pediátricos e terapia intravenosa e medicamentosa (Research group in Nursing in the area of patient safety, pediatric intensive care and intravenous and drug therapy)	Nursing	Universidade Federal de São Paulo – UNIFESP
2006	Saúde do adulto e família (Adult and family health)	Nursing	Universidade Estadual do Ceará - UECE
2010	Laboratório de Estudos e Pesquisas Multidisciplinares em Segurança do Paciente (Laboratory of Multidisciplinary Studies and Research in Patient Safety)	Nursing	Universidade de Brasília - UnB
2010	Laboratório de investigação do cuidado, segurança, tecnologias em saúde e enfermagem (Laboratory of investigation of care, safety, health and nursing technologies)	Nursing	Universidade Federal do Rio Grande do Norte - UFRN
2010	Saúde Baseada em Evidências na Amazônia: Avaliação de Tecnologias em Saúde (Health based on Evidence in the Amazon: Assessment of Health Technologies)	Public Health	Universidade Federal do Amazonas - UFAM
2010	Núcleo de Estudos, Eventos, Pesquisas e Extensão em Saúde (Center of Studies, Events, Research and Extension in Health)	Public Health	Universidade Federal do Acre – UFAC
2010	Núcleo de Estudos de Enfermagem em Gestão de Instituições de Saúde e Segurança do Paciente - NEGISP (Center of studies of Nursing in the Management of Health Institutions and Patient Safety – NEGISP)	Nursing	Universidade Federal de Goiás - UFG
2012	Rede de cuidados de Enfermagem aos pacientes críticos (Network of Nursing Care to critical patients)	Nursing	Universidade Salgado de Oliveira - UNIVERSO
2013	Assistência Farmacêutica: estratégias para melhorar a segurança do paciente (Pharmaceutical care: strategies to improve patient safety)	Pharmacy	Universidade Federal Fluminense - UFF
2013	Gestão em Saúde (Health Management)	Administration	Universidade Nove de Julho - UNINOVE
2014	Cuidados Farmacêuticos para Segurança do Paciente (Pharmaceutical care for Patient Safety)	Pharmacy	Universidade Federal Fluminense - UFF
2014	Gestão e segurança assistencial (Care Management and safety)	Medicine	Universidade Federal de Minas Gerais - UFMG
2014	Grupo de Ensino e Pesquisa em Segurança do Paciente (Teaching and Research Group in Patient Safety)	Nursing	Universidade de Caxias do Sul – UCS

2015	Núcleo de Estudos de Enfermagem em Administração e Segurança do Paciente (NEASP) (Center of Nursing Studies In Patient Management and Safety (NEASP))	Nursing	Hospital de Clínicas de Porto Alegre - HCPA
2015	Núcleo de pesquisa, prática e ensino em gestão em saúde – NUPPEGES (Center of research, practice and teaching in health - NUPPEGES)	Nursing	Universidade Estadual de Maringá - UEM
2015	Saúde Coletiva e Gestão de Organizações de Saúde (Public Health and Management of Health Organizations)	Public Health	Centro Universitário Hermínio Ometto de Arararas – UNIARARAS
2015	Melhoria da Qualidade em Serviços de Saúde – QualiSaúde (Improvement of Quality in Health Services – QualiSaúde)	Public Health	Universidade Federal do Rio Grande do Norte - UFRN

Source: Database of CNPq Research Groups Directory⁽³⁾.

institutions, with three groups (13.5%) and one (4.5%) research group formed in one health care institution.

Table 2 shows the total and average number of members of the research groups and their ranks. It can be seen that doctors have led most research groups. In three groups, the leaders are masters.

The research has also identified that no Brazilian research group has partnerships with foreign research groups.

Most research groups or lines on patient safety were created in 2010: five (23%) followed by 2015, with four (18%). Figure 3 shows the distribution of the number of groups created per year related to patient safety.

Most research groups or lines were created in the area of Nursing: fourteen (63.63%), followed by Public Health, with four (18.18%), Pharmacy, with two (9.09%), Medicine, with one (4.54%) and Administration, with one (4.54%).

Table 2 - Description of the characteristic of the research groups. São Carlos, SP, Brazil, 2016

	Total	Average
Research line	73	3.3
Members	425	19
Doctor	113	5
PhD student	28	1.3
Master	57	2.5
Master students	43	2
Graduate students	43	2
Others ^[1]	100	2

^[1]Academic background not reported.

Source: Database of CNPq Research Groups Directory⁽³⁾.

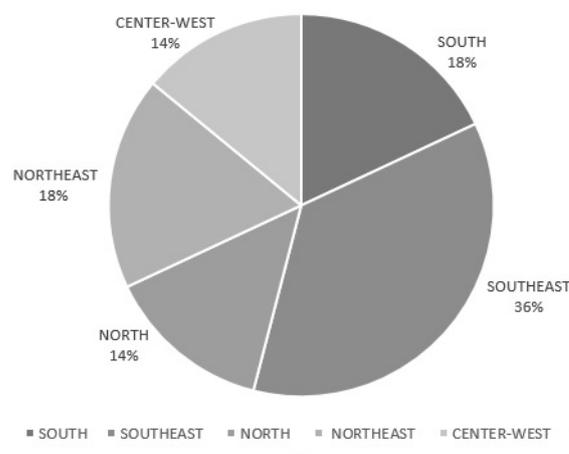


Figure 2 – Distribution of groups per Brazilian region. São Carlos, SP, Brazil, 2016

Source: Database of CNPq Research Groups Directory⁽³⁾.

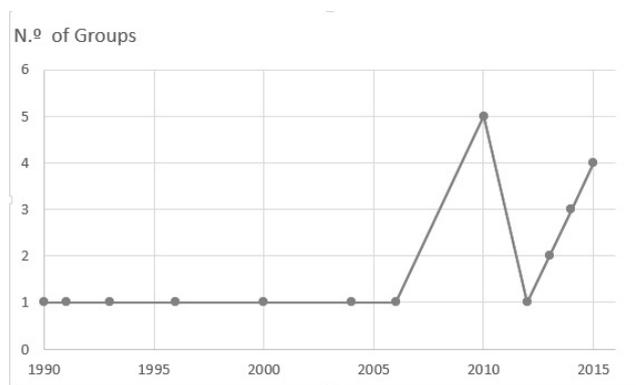


Figure 3 – Distribution of the creation of research groups per year. São Carlos, SP, Brazil, 2016

Source: Database of CNPq Research Groups Directory⁽³⁾.

● DISCUSSION

Research is expanding in Brazilian teaching institutions and is available at the CNPq Research Groups Directory, which provides information on each active group in Brazil. The formation of research groups provides scientific contribution, the exchange of information and experiences between researchers, the development of a scientific discipline, besides stimulating publication⁽¹²⁾.

The theme patient safety has become a relevant issue in many countries in the world in the 21st century (13). In Brazil, concern with patient safety, although incipient, has begun in the 1990's. However, it has aroused greater interest only in the past five years.

The area that concentrated most research groups was represented by Nursing 64% (n=14). The nursing professional is responsible for approximately 50% of labor in health services^(14, 15). Nursing professionals and students involved in teaching activities have been mobilizing for the creation of a network of safety. Thus, in 2008 the REBRAENSP – Rede Brasileira de Enfermagem e Segurança do Paciente (Brazilian Network of Nursing and Patient Safety), was created. This network has hubs and centers whose primary objective is to disseminate the culture of patient safety among health institutions and personnel⁽¹⁶⁻¹⁷⁾.

Currently, almost all Brazilian states have REBRAENSP hubs and centers, which provide valuable spaces for discussions with impact on care, teaching and research practices⁽¹⁷⁾.

Besides, some initiatives of public bodies in teaching institutions and health services stimulate and encourage research, e.g. Brazil's National Health Surveillance Agency (ANVISA) that in 2007⁽¹⁸⁾ elaborated a proposal to identify safety problems in health services and adjust them to the WHO recommendations. In 2009, the organization launched⁽¹⁹⁾ the "WHO patient safety research: better knowledge for safer care", indicating the types of research with greater potential for contributing to patient safety, such as: (1) measurement of damage and types of damage, (2) understanding the causes of safety incidents, (3) development of safety solutions, (4) learning with the implementation of safety solutions (5) assessment of the impact of the solutions and (6) ensure that research findings become standards and are used in the practice^(17,19).

In 2013, the Programa Nacional de Segurança do Paciente (National Program on Patient Safety) of Brazil's Ministry of Health and ANVISA was created to implement to manage risks and the Centers of Patient Safety in the country's health care facilities⁽⁸⁾.

Another factor that deserves mention regarding patient safety is the population's increase in life expectancy, as a result of the significant technological advances in prevention, diagnosis and treatment of diseases. Due to the aging of the population and increased access to health services, demand for health services becomes essential. Despite the efforts of teaching institutions to train health professionals and provision of high-tech based health care, patients can be exposed to hazards and be harmed⁽²⁰⁾.

Data issued by CNPq 2014 Census showed that 43.9% of the research groups are located in the Southeast region of Brazil. It should be stressed that more than half of the nurses (53.9%) of Brazil are concentrated in this region⁽¹¹⁾.

CNPq conducts biannual censuses for the analysis of a great deal of information related to research groups in Brazil. According to 2014 data on the distribution of scholars, according to their ranks, most research groups were formed by PhD and master students, as shown in Table 2. Similar data was also found in another study⁽²¹⁻²²⁾.

Regarding the location of the institutions of these groups, most research groups are located in the Southeast region of the country, corroborating the findings of other studies^(9,11,22-25). Such disparities between the regions are related to infrastructure, a qualified teaching staff and resources for research development⁽¹²⁾. These groups were initially implemented in universities in the South and Southeast regions, hence concentrating research support and resources and ensuring scientific production in this geographical area⁽¹³⁾.

Besides, according to some authors⁽²³⁾ since the Southeast region accounts for more than half of the

country's GDP (Gross Domestic Product), it induces the concentration of funding, centers of excellence in research and human resources.

Over the past decades, the concern with patient safety has become a priority in health care, leading to the search and development of scientific evidence⁽²⁾, and highlighting the characteristics of the selected research groups that comprise the areas of nursing, public health, pharmacy and medicine.

One limitation of the study concerns the research groups analyzed, because the data was collected via databases and not through direct interviews with the scholars, which may raise questions as to which were the actual lines of research presented, and the need for assessment of the number of publications submitted by each group on the subject.

● CONCLUSION

The present study concerned the analysis of research groups in the area of patient safety, contributing to its development and enabling the establishment of contacts, besides stressing the concern of nursing professionals with the theme in their professional practice, teaching and research.

CNPq database is essential for the construction and visualization of the knowledge network within the scientific context. Moreover, the research groups, which include scholars, students and technicians, may provide new opportunities to discuss the issue with multidisciplinary health teams, in order to promote a culture of patient safety at all levels.

Investigations on patient safety should focus on the development of studies that result in effective strategies for health care professionals, mobilization and search for knowledge associated with health care practice, teaching and research.

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