The Setting of Research Production by Nursing and Management Graduate Programs in Brazil

ABSTRACT
This documental, descriptive study was performed using a quantitative approach with the objective to characterize the production by nursing graduates in Brazil in the 2007-2009 triennium, with emphasis on nursing management. Data was collected from the CAPES database, which allows access to the abstracts of theses and dissertations. The material was analyzed and categorized according to areas/fields and the respective lines of research, as defined in Nursing. The overall production analysis was descriptive and analytical in the field of organization, namely management. The results showed that, compared to previous studies, production underwent some changes in the triennium, with an increase in the area of health care, maintenance in the organizational area, and decrease in the professional area. Regarding the management theme, most studies addressed health assessment, the conceptions/perceptions regarding planning/organizing work-services and permanent education.

DESCRIPTORS
Nursing research
Nursing administration research
Education, Nursing, Graduate

RESUMO
Trata-se de um estudo documental, descritivo, com abordagem quantitativa, com o objetivo de caracterizar a produção da pós-graduação brasileira na área da enfermagem no triênio 2007-2009, com ênfase na temática gerenciamento em enfermagem. As informações foram obtidas no banco de dados da CAPES, que disponibiliza resumos de dissertações e teses. O material foi analisado e categorizado segundo as áreas/campos e respectivas linhas de pesquisa, definidas pela área de Enfermagem. A análise da produção em geral foi descritiva e analítica/critica no campo organizacional, especificamente, na temática do gerenciamento. Os resultados mostraram algumas mudanças na produção no triênio, quando comparada aos estudos anteriores, destacando-se o crescimento da área/campo assistencial, manutenção da organizacional e queda na área/campo profissional. Na temática de gerenciamento houve o predominio de estudos sobre avaliação em saúde, concepções/percepções sobre planejamento/organização, do trabalho/serviços e educação permanente.

DESCRIPTORES
Pesquisa em enfermagem
Pesquisa em administração de enfermagem
Educação de Pós-Graduação em Enfermagem

RESUMEN
Se trata de un estudio documental, descriptivo, de abordaje cuantitativo, objetivando caracterizar la producción de los posgraduados brasileños en el área de enfermería en el trienio 2007-2009, enfatizando en la temática de gerenciamiento en enfermería. Las informaciones se obtuvieron en el banco de datos de la CAPES, que disponibiliza resúmenes de disertaciones y tesis. El material fue analizado y categorizado según las áreas/campos y sus respectivas líneas de investigación, definidas por el área de Enfermería. El análisis de la producción fue, en general, descriptivo y analítico/critico en el campo organizacional, específicamente en lo que al tema gerenciamiento se refiere. Los resultados mostraron algunos cambios en la producción en dicho trienio, comparándolo con estudios anteriores, destacándose el crecimiento del área/campo de atención, mantenimiento organizacional y caída en área/campo profesional. En la temática de gerenciamiento, hubo predominio de estudios sobre evaluación en salud, concepciones/percepciones sobre planificación/organización del trabajo-servicios y educación permanente.

DESCRIPTORES
Investigación en enfermería
Investigación en administración de enfermería
Educación de Postgrado en Enfermería
The challenge implied in expanding graduate study courses and programs in Nursing is to break endogeneity and reduce asymmetries, thus guaranteeing their quality and sustainability...

Gradually, nursing graduate studies are being consolidated in developing qualified human resources in research and intellectual production, with the first acknowledgement of a score-six program (Fundamental Nursing – USP/EERP) in the 2004-2006 triennium, followed by another three programs (Adult Health Nursing – USP/EE, Public Health Nursing – USP/EERP, and Nursing – Federal University of Santa Catarina) in the 2007-2009 triennium. Another important landmark is the indexation of Brazilian nursing journals on the Web of Science since 2007, reaching four indexations in 2010. This scenario reflects the scientific and social expression of Nursing in both national and international contexts, increasing its visibility and quality in this teaching level[4].

The Nursing area currently counts with 76 graduate courses (42 academic master, 24 doctoral, and 10 professional master programs), associated with 54 programs (20 only in the academic master level, 22 master and doctoral, two only in the doctorate level, and 10 professional master program). In the last triennium (2007-2009), 24 courses received a score three, 17 score four, nine courses received score five and four a score six.

The challenge implied in expanding graduate study courses and programs in Nursing is to break endogeneity and reduce asymmetries, thus guaranteeing their quality and sustainability, in agreement with PNPG 2011-2020 and the National Agenda of Priorities in Health Research (ANPP)[2,3].

The ANPP[2,3] established a broad public debate and consultancy process, which led to defining 24 sub-agen-
das of research priorities including the one highlighted in the present study, concerning the Management of Work and Education in Health, due to the expressive work done by nurses in managing health and nursing services.

Studies\textsuperscript{6-7} show there is a strong relationship between health care and management activities in nursing, which, concerning the nurses’ work, mostly involves the managerial dimension. This feature exposes a tension that exists in Brazilian nursing, because this area is a profession and class discipline that is specifically centered on care.

This setting can be partly attributed to the profile of workers/staff that comprises the nursing workforce in Brazil. A historical series of its distribution, according to professional categories, shows that only since 2000-2010 there has been a consistent movement to improve the quality of the workers, with a minimum level of technical education (nursing auxiliaries and technicians). However, in this same setting, we observe the persistence of a reduced number of nurses, because over the last three decades, the rates have increased from 8.5%, in the early 1980s to only 19.8% in 2010\textsuperscript{8-9}.

This reveals the persistent need to improve the qualification of nursing staff in all education levels, including the graduate level, and to strengthen the link between nursing care and care management, especially among nurses.

Nevertheless, today in Brazil there are only two graduate courses in Nursing that prepare researchers specifically for management. The first was established in 1974, at the University of São Paulo School of Nursing (EEUSP), and the second at the Federal University of Bahia School of Nursing.

The need to guarantee the continuous education of researchers as well as to increase and improvement of investigations in this field, with the consequent production of knowledge and specific technological innovations, has led to establishing the first Graduate Program in Nursing Management at EEUSP, in 2010.

The present study was performed to ground the opening conference of the 1\textsuperscript{st} International Meeting of Graduate Study Programs in Nursing Management, organized by the referred program, with the objective to characterize the production of Brazilian graduate study programs in nursing in the 2007-2009 triennium, focused on nursing management.

\textbf{METHOD}

This documental, descriptive study was performed using a quantitative approach. Data was collected from the indicator books of the programs made available by the Coleta CAPES application, which consists of a computerized system that has, as a purpose, to collect information form the graduate (academic and professional master and doctoral) courses integrated to the SNPG\textsuperscript{10}.

The information used consisted of the titles and abstracts of dissertations and theses defended in the Nursing Graduate Programs during the triennium (2007-2009).

In order to standardize the data collection and to categorize the identified material, a meeting was held with the researchers with a view to reduce any possible biases.

In the first phase of data collection, the abstract books of each program were read, which allowed for distributing the production according to subject areas pertinent to the lines of research, as defined in a previous study\textsuperscript{11}, in addition to emerging themes. All abstracts in the referred books were included in the study, adding up to 1885 documents.

In the next phase, the abstracts were systematically organized according to the consolidation of the lines of research proposed by the field of Nursing/CAPES/CNPq in 2001\textsuperscript{12-13} and in a study published in 2005\textsuperscript{14}, which indicate that nursing production should be organized by lines of research according to three areas/fields: Professional, Health Care and Organizational, as shown in Chart 1.

\begin{table}
\centering
\begin{tabular}{|c|c|c|}
\hline
Professional Area & Health Care Area & Organizational Area \\
\hline
Theoretical-Philosophical Foundations of Care in Health and Nursing & The process of Care in Health and Nursing & Policies and Practices in Health and Nursing \\
Technology in Health and Nursing & Health and Quality of Life & Education and Nursing Policies and Practices \\
Ethics in Health and Nursing & - & Social Production and Work in Health and Nursing \\
The History of Nursing & - & Managing Health and Nursing Services \\
- & - & Information/Communication in Health and Nursing \\
\hline
\end{tabular}
\end{table}

The data obtained from the distribution of the abstracts were input on an electronic spreadsheet (Microsoft Excel 2007) and analyzed in terms of the absolute and relative frequency, according to the subject area and line of research.

Besides this process, the abstracts pertinent to the Organizational area/field were analyzed regarding the designs of the studies. Furthermore, abstracts that were particularly related to the line of research Managing Health and Nursing Services were subjected to a deeper analysis with a view to categorize them according to the instruments of the managerial working process: health evaluation; permanent education; planning; leadership/teambwork, and staffing. However, the analyzed material required three new categories to be constructed – one to contemplate the studies of conceptions and perceptions of planning and organizing services, and another two regarding emerging themes in Nursing: cost management and management technologies. This classification permitted to identify production tendencies and the methods...
used to develop the studies. After the analysis, the data were organized, described and contextualized.

The study was developed in a way that all ethical principles were complied with. Data collection was conducted after being authorized by the Evaluation Board/CAPES, who provided access to the database containing the abstracts of the dissertations and theses approved in the nursing graduate programs of Brazilian education institutions.

RESULTS

In the studied period, 1499 master dissertations and 386 doctoral theses were defended, adding up to 1885 products. The reading of the abstracts and their distribution into the referred lines of research permitted to analyze the production of the graduate study programs in Nursing across the 2007-2009 triennium, which results are shown in the following table.

The data in Table 1 show a sharp tendency for productions in the Health Care area/field, followed by Organizational and, in a smaller proportion, in the Professional area/field. This tendency is better observed with the distribution of theses and dissertations into lines of research, as shown in Figure 1.

Table 1 – Theses and dissertations of the Stricto Sensu Nursing Graduate Programs distributed according to subject areas and area/field - Brazil, 2007-2009 triennium

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>D</td>
<td>M</td>
<td>D</td>
</tr>
<tr>
<td>Technologies in Nursing</td>
<td>20</td>
<td>5</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Systematization of Nursing Care</td>
<td>22</td>
<td>0</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>The History of Nursing</td>
<td>12</td>
<td>4</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Theories/Theoretical approaches of knowledge and practice in Nursing</td>
<td>5</td>
<td>3</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Ethics and bioethics</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Area/field: Professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child/Adolescent Health</td>
<td>49</td>
<td>18</td>
<td>55</td>
<td>16</td>
</tr>
<tr>
<td>Women’s Health</td>
<td>52</td>
<td>11</td>
<td>44</td>
<td>9</td>
</tr>
<tr>
<td>The process of care</td>
<td>33</td>
<td>3</td>
<td>47</td>
<td>10</td>
</tr>
<tr>
<td>Adult’s Health</td>
<td>39</td>
<td>7</td>
<td>36</td>
<td>10</td>
</tr>
<tr>
<td>Mental Health</td>
<td>26</td>
<td>9</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Collective Health</td>
<td>26</td>
<td>6</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>Health of the Elderly</td>
<td>18</td>
<td>4</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Quality of life</td>
<td>9</td>
<td>4</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Family care</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Area/field: Health Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>61</td>
<td>14</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>Education</td>
<td>46</td>
<td>18</td>
<td>31</td>
<td>9</td>
</tr>
<tr>
<td>Workers’ Health</td>
<td>28</td>
<td>10</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Policies and Practices in Health</td>
<td>18</td>
<td>1</td>
<td>40</td>
<td>11</td>
</tr>
<tr>
<td>Information and Communication</td>
<td>6</td>
<td>2</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Area/field: Organizational</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>480</td>
<td>127</td>
<td>469</td>
<td>137</td>
</tr>
</tbody>
</table>

Regarding the master dissertations, qualitative ap-

Figure 1 – Theses and dissertations of the Stricto Sensu Nursing Graduate Programs distributed according to lines of research - Brazil, 2007-2009 triennium

The line of research The Care Process in Health and Nursing concentrated most of the production (52.73%). However, the production of two other lines should be highlighted: Managing Health and Nursing Services (10.98%) and Education and Nursing Policies and Practices (8.44%). Taking the study objective into consideration, more detail was given in presenting the results pertinent to the lines of research of the Organizational area/field, and, in particular, to those related to management.

A total 207 production were identified (Table 1), 165 (79.71%) of which are master dissertations, and 42 (20.29%) are doctoral theses. Regarding the methodological approach, it should be highlighted that there was an expressive number of abstracts that did not make a clear reference to the type of study that was adopted. However, it was possible to categorize them by their theoretical framework and/or analysis modality or, yet, based on the results, according to the quantitative, qualitative, or quali-quantitative character.
Regarding the methodology, the doctoral theses differed because in 2007 the qualitative approach predominated; while in 2008 there was a balance between qualitative and quantitative studies, and in 2009 the quantitative method prevailed (Figure 2). Of all theses, 20 (47.62%) are studies that used a qualitative approach, 16 (38.09%) quantitative, and six (14.29%) are quali-quantitative investigations.

Regarding the line of research Managing Health and Nursing Services, it was verified that three subject areas predominated: health evaluation, conceptions/perceptions regarding planning/organizing services, and permanent education, as shown in Figure 3.

The comparison of the results obtained in the present study with those demonstrated in the referred article points at a reduction in the number of studies in the Professional area/field, which first\(^{(1)}\) accounted for 19.19% of the total production, but currently represents 11.98%. It is also important to emphasize that there was an expressive reduction in productions in the research line Theoretical-
Phenomenological Foundations of Care in Health and Nursing

Furthermore, we highlight that in the Professional area/field there has been a subtle tendency towards an increase of production in the line of research Technology in Health and Nursing, which accounted for 3.79%\(^5\) and in the present study shows 4.40%. It is also emphasized that the studies regarding the Systematization of Nursing Care were included this area because they focus on the development of concepts that guide knowledge and practice in health and nursing, assigning visibility and autonomy to nurses’ work\(^14\)\(^\text{-15}\).

In the Health Care area/field, the phenomenon was the opposite, since it already accounted for 17.85% of the theses defended from 1987 to 2001\(^11\), and increased to 55.38% among dissertations and theses defended in the studied triennium.

It was observed that in the Health Care field there was a predominance of studies that support the health care of children/adolescents, women, adults, and the elderly. This tendency has been maintained for over five decades\(^11\)\(^\text{-18}\), which characterized the search for instruments and evidence for nursing care in the life cycle stages.

Furthermore, it is also emphasized that there has been a sharp increase in studies in this area regarding the process of care in health and nursing and a reduction in those related to quality of life, compared to the study of doctoral theses defended in the time period from 1987 to 2001\(^11\). In addition, in the Health Care area/field there are also emerging themes such as family care, studies about men’s health included in adult health and others that reflect the process of care and its many aspects. It is important to highlight that the studies included in this area are in harmony with the sub-areas of ANPP\(^5\).

The organizational area/field also showed a significant rate of productions (33.63%), being more expressive in the line of research Managing Health and Nursing Services, although the analysis of the triennium also gives evidence of a tendency for productions in the line of research Policies and Practices in Health to increase.

In the period from 2007 to 2009, in the line of management, the qualitative approach is predominant, especially in master dissertations in a descriptive-exploratory and diagnostically perspective without, however, advancing towards interventions or propositions of management models and methods that would permit to reconstruct professional practice. It is also possible to observe that some studies used a combination of qualitative-quantitative approaches, which reflect the possibility to cover complex study objects based on complementary approaches, thus allowing for a larger coverage and the generalization of results, with a consequent chance to advance in Nursing research.

Regarding the themes studied in this line of research, it is observed that the three predominant themes (health evaluation, conceptions/perceptions for planning/organizing, and permanent education) are in harmony with the ANPP sub-areas: Managing Work and Education in Health and Technological Evaluation and Economy in Health\(^5\).

It is understood that the prevalence of studies related to health evaluation as a theme reflect the consolidation of a culture of evaluation of health and nursing services that began in the 1960’s with the studies by Donabedian\(^1\)\(^\text{-18}\), and, more recently in Brazil, since the 1990’s, with the movement for Hospital Accreditation and Primary Care Evaluation\(^19\)\(^\text{-21}\). However, most studies have emphasized on issues related to the evaluation of structures; few address the process, and there are rare result evaluations, which denotes the poor visibility for collective actions associated with public health policies.

The analysis of the themes from the management line of research shows an expressive production regarding the perceptions and conceptions of the different actors about managerial issues directed to planning and organizing work or services, but still limited to the exploratory and diagnostic phases. These studies do not assign a vertical hierarchy to the questions of traditional models, as in the Taylor or Ford models, do not make a deeper theoretical and conceptual analysis of general and public administration methods, neither do they advance towards proposing new management models in nursing and health.

This scarcity of theses and dissertations regarding nursing and health management corroborated a Brazilian literature review about human resources in nursing that also points to the need for studies about the theoretical conceptions and ethical-political projects adopted by nursing management, with the predominance of instrumental studies\(^22\).

This setting exposes the fragilities of the production in Managing Health and Nursing Services while pointing at the possibility of strengthening this line of research as instrumental studies, which are being developed and answer a set of needs of nursing and health practices, develop an association with critical grounded analysis, with greater theoretical densification.

CONCLUSION

The present study results show that the majority of the dissertations and theses were in the Health Care area/field, in the 2007-2009 triennium, especially in the line of research The Process of Care in Health and Nursing, which confirms the main object of study in Nursing, in the individual or collective domain, and in its subjective and objective dimensions of providing and receiving care.

It is observed there is a small ratio of studies in the Professional area/field, with a tendency towards further decrease due to the expressive reduction in the percentage of productions in the research line Theoretical-Philoso-
sophical Foundations of Care in Health and Nursing. This is a concerning result, because it is essential to improve epistemological knowledge in order to consolidate Nursing science.

On the other hand, the subtle tendency towards the increase in production in the research line Technology in Health and Nursing is important as it represents an answer of the area, despite only initial, to the strong incorporation of technology in individual and collective health practices. In this sense, it is recommended to incorporate the innovation component in the lines of research in this area, in order to portray its potential in the professional field in harmony with the policies of science, technology, and the innovation of the PNPG guidelines.

Regarding the Organizational area/field, emphasis is on the production in the line of research Managing Health and Nursing Services, with a predominance of themes relating to health evaluation, conceptions/perceptions for planning/organizing, and permanent education, therefore, in harmony with ANPP. However, the predominance of descriptive-exploratory and diagnostic studies and the scarcity of intervention studies or those proposing management models and methods reveal the fragilities that should be overcome with a greater theoretical-methodological densification.

One limitation of the present study is the insufficient number of abstracts as a secondary data source, which increases the difficulty of making a deeper analysis, especially of the methods used in dissertations and theses; the limitation of the analysis period to one triennium (2007 to 2009) and not including dissertations and theses produced by nurses in graduate programs in other areas.

It should be stressed that the previous research, which served as the basis for the comparisons made in the present study, focused on the Nursing production only concerning doctoral theses, while in the present study the analysis was expanded to include master dissertations. The results, however, reflect the grouped effort of the whole production by Brazilian graduate programs.

REFERENCES


It is also emphasized that, in the process of investigation, it was difficult to distribute the whole nursing production into the lines of research and current subject areas, which indicated the need to review this document with a view to update the tendencies of research demands in health and focus the production of Nursing based on the ANPP guidelines, considering that it is also being restructured.

Based on the obtained results, which point at the strengths and weaknesses of the dissertations and theses defended in Nursing graduate programs, the following recommendations are made:

• Production should be incremented in harmony with the guidelines determined by national and international organizations/agencies and the policies of science, technology and innovation, and ANPP;

• The development of methodological, intervention, and clinical trial studies should be encouraged, and qualitative studies should be enhanced grounded on consolidated theoretical-methodological frameworks;

• Provide a leverage in the development of studies addressing new and emerging themes such as family care, the impact of scientific and technological production on health and nursing practices and on the consolidation of the SUS; the models and instruments of nursing and health management and cost management;

• Promote research focused on the education of nurses aiming at the consolidation of political-pedagogical projects, the development of innovative education technologies, the production and use of research, including/using graduates in teaching institutions and in the service sector;

• Increase the collaboration networks in research, technology and in health and nursing innovation;

• Increase visibility in society through studies that are more innovative in order to meet the new demands of society, develop care technologies, and new tools for service management and frameworks for knowledge transfer focused on improving nursing care, management and education.


