

## CONVERGENT-CARE RESEARCH: BIBLIOMETRIC STUDY OF DISSERTATIONS AND THESES

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**ABSTRACT:** This bibliometric study was conducted in the theses database available through the Coordination for the Improvement of Higher Education Personnel (CAPES) portal, to identify the contribution of Convergent-Care Research in the construction of nursing and health knowledge produced in Brazilian master's and doctoral programs. The sample was composed of 67 theses and six dissertations that used Convergent Care Research as the modality of research between 2000 and 2008. Data were analyzed using descriptive statistics. The conclusion is that the development of this modality of research is prevalent in hospitals in the South of Brazil, especially conducted by the Federal University of Santa Catarina. The increased use of this method and expansion to other fields show the advancement and recognition of nursing as a science, as it developed its own research methodology that enables intervening in various scenarios in the health field.

**DESCRIPTORS:** Nursing. Bibliometrics. Methods. Theses. Dissertations.

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## PESQUISA CONVERGENTE-ASSISTENCIAL: ESTUDO BIBLIOMÉTRICO DE DISSERTAÇÕES E TESES

**RESUMO:** Estudo bibliométrico realizado no banco de teses do portal da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, com objetivo de identificar a contribuição da Pesquisa Convergente-Assistencial na construção do conhecimento de enfermagem e saúde, produzido em cursos de mestrado e doutorado no Brasil. A amostra foi composta por 67 dissertações e seis teses que utilizaram a Pesquisa Convergente-Assistencial como modalidade de pesquisa, entre os anos de 2000 a 2008. Os dados foram analisados por meio de estatística descritiva. Conclui-se que o desenvolvimento desta modalidade de pesquisa prevalece nos hospitais, na região Sul do Brasil, com destaque para a Universidade Federal de Santa Catarina. O aumento no uso da modalidade e a expansão para outras áreas de conhecimento demonstram o avanço e reconhecimento da enfermagem enquanto ciência, ao desenvolver uma metodologia de investigação de cunho próprio, que possibilita a intervenção nos diversos cenários de atuação em saúde.

**DESCRIPTORES:** Enfermagem. Bibliometria. Métodos. Teses. Dissertações.

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## INVESTIGACIÓN CONVERGENTE-ASISTENCIAL: ESTUDIO BIBLIOMÉTRICO DE DISERTACIONES Y TESIS

**RESUMEN:** Estudio bibliométrico realizado en la Coordinación de la tesis en el banco de tesis del portal de Mejoramiento de la Educación Superior, con el fin de identificar la contribución de la investigación convergente-asistencial en la construcción del conocimiento de enfermería y salud, producidos en la maestría y doctorado en Brasil. La muestra consistió en 67 disertaciones y 6 tesis que utilizaron investigación convergente-asistencial, como un modo de investigación entre los años 2000 a 2008. Los datos fueron analizados mediante estadística descriptiva. Se concluye que el desarrollo de este tipo de investigación es frecuente en los hospitales en el sur de Brasil, especialmente en la Universidad Federal de Santa Catarina. El aumento del uso de la modalidad y la expansión hacia otras áreas de conocimiento, muestran el avance reconocimiento de la enfermería como una ciencia mediante el desarrollo de una metodología de investigación propia, que permite intervenciones en los diversos escenarios de salud.

**DESCRIPTORES:** Enfermería. Bibliometría. Métodos. Tesis. Disertaciones.

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## INTRODUCTION

The creation of graduate programs such as master's and doctoral programs, coupled with the advancement of communication technologies, boosted scientific production in Brazilian nursing, encouraging a critical evaluation of professional practice and the incorporation of results of research studies into practice.<sup>1</sup> While research becomes acknowledged as an essential element in the nursing field, some limitations are observed in its development and application into practice. Among such limitations is the need to develop research intended to expand nursing knowledge and also the poor impact of research in the field if it remains restricted to academia; research should be directly tied to care practice.<sup>2</sup>

In this context, modalities of research designed to be in direct contact with the situation to be studied have emerged in order to promote transformations in reality. In Brazil, a modality of research proposed by nurses in 1999 has been increasingly used in the nursing field. It is called Convergent Care Research (PCA). This modality of research emerged from the need for Brazilian researcher-nurses to connect knowledge produced in academia with practice. It was born from the authors' desire to promote the incorporation of research results into practice since phenomena to be studied are observed in the daily professional practice of researcher-nurses. The close connection of researchers with professional practice is this method's main characteristic, which was inspired by the action research of Kurt and Levin and in the nursing process.<sup>3</sup>

PCA was based on the identification of research problems that emerge in professional practice and aims to identify vulnerabilities or strengths to contribute to the education, or management. For this reason, this modality of research always requires the involvement of researchers with problems or issues that arise in practice. PCA is committed to the proposition of innovations in nursing and health care, including those involved in the context to be studied in a relationship of mutual cooperation so as to promote integration between theory and practice, thinking and doing, seeking to renew the practice itself.<sup>3</sup>

This type of research does not apply only to research objects/phenomena in the nursing field. It can be used in various fields of knowledge, especially in the health fields. It is characterized as a qualitative approach because it necessarily includes subjective variables in the interaction between the researcher and the study's participants.<sup>3</sup>

In its operational process, PCA shows spaces of intersection between the care, education or management processes and the research process. These processes need to occur simultaneously, favoring a gradual immersion of the researcher in the studied context, allowing the interpretation and identification of gaps along the line of the process. The researcher intervenes and the research itself intervenes, which implies that this modality always involves care, education or management actions, even if its focus is to understand or describe some aspect of the problem.<sup>3</sup>

PCA is a new modality of research and its relevance is directly linked to the constitution of knowledge in the nursing profession and to strengthening professional identity. From this perspective, this study aimed to identify scientific production in the form of dissertations and theses in the health field that used Convergent Care Research as their methodological framework.

The study's results will help us to identify the use of this research modality in the academic field and contribute to the dissemination of this methodological alternative.

## METHOD

This quantitative study employed the bibliometric method, which allows an objective evaluation of scientific production and is employed in various areas of scientific knowledge.<sup>4</sup> Bibliometric indicators are used to evaluate the results of investments in research, production of scientific papers, patents, and to answer questions concerning the impact of research in the scientific community.<sup>2</sup> Studies of this nature in the field of nursing have been used to identify the characteristics of scientific production in the field. It is an important strategy, because it provides evidence for patterns and trends of studies conducted<sup>5</sup> in different fields.

A search was performed in the theses database available through the Coordination for the Improvement of Higher Education Personnel (CAPES) portal, through the CAPES/UFSC periodicals portal using the term "*Pesquisa Convergente-Assistencial*" [Convergent Care Research]. Data were collected from March to December 2009.

Only final papers in the health field from Brazilian master's and doctoral programs from 2000 – the year following the date the methodology was created – to 2008 were selected. A total of 92 works were initially found.

Data were organized in a specific form, containing the following indicators defined by the authors: year of publication, geographic region, and teaching institution linked to research, year of defense, place where it was conducted, thematic fields, settings, theoretical framework used, and method of data analysis.

Information was obtained through reading the abstracts and when information required was not provided, we read the printed full text or the text online, when available. When obtaining all the required information proved to be impossible, the thesis or dissertation was excluded from the study. A total of 19 works were excluded at this point. Hence, we present 73 works: 67 dissertations and six theses.

Data were transferred to Excel® spread sheets and organized in alphabetical order by the author's name. Afterwards, information was listed through indicators, coded and analyzed. Data were analyzed through descriptive statistics: absolute and relative frequency.

## RESULTS AND DISCUSSION

The results reveal that PCA was used in dissertations and theses defended in 12 Brazilian universities. The use of this modality of research appeared with greater emphasis in master's theses in the nursing field (65; 89.04%), followed by doctoral dissertations also in the nursing field (5; 6.85%), one (1.37%) master's thesis in speech therapy, one (1.37%) master's thesis in public health, and one (1.37%) doctoral dissertation in biomedical gerontology (Table 1).

PCA was most frequently used in 2006 (21.91%) and in 2007 (17.80%). The PCA as a methodological framework to be used in the nursing field has been acknowledged over the years as a legitimate research approach in graduate programs, especially in the field of nursing, which is reflected in the scientific production of Brazilian nursing.<sup>6</sup> Brazilian graduate programs have significantly grown in recent years and acquired a prominent position in the scope of higher education in Brazil, becoming an area of practice for the training of new researchers, producing studies, new knowledge and new technologies.<sup>7</sup> The availability of final papers in master's and doctoral programs (theses and dissertations) in electronic databases has shown the significant leap academic production has taken in Brazil.<sup>5</sup>

**Table 1 – Distribution of the use of PCA according to year of publication, region, care field, study's setting. Florianópolis-SC, Brazil, 2011**

<b>Bibliometric indicators</b>	<b>N=73</b>	<b>(%)</b>
<b>Year of publication</b>		
2000	6	8.22
2001	11	15.07
2002	2	2.74
2003	7	9.59
2004	6	8.22
2005	4	5.48
2006	16	21.92
2007	13	17.81
2008	8	10.96
<b>South</b>	<b>64</b>	<b>87.67</b>
<i>Fundação Universidade Federal do Rio Grande</i>	4	5.48
Pontifical Catholic University of Rio Grande do Sul	1	1.37
Federal University of Santa Catarina	53	72.60
<i>Universidade do Vale do Itajaí</i>	1	1.37
Federal University of Paraná	4	5.48
Federal University of Rio Grande do Sul	1	1.37
<b>Northeast</b>	<b>8</b>	<b>10.96</b>
Federal University of Ceará	4	5.48
State University of Ceará	1	1.37
Federal University of Rio Grande do Norte	1	1.37
Federal University of Paraíba	1	1.37
University of Fortaleza – UNIFOR	1	1.37
<b>Southeast</b>	<b>1</b>	<b>1.37</b>
<i>Escola de Enfermagem Anna Nery e Hospital Escola São Francisco de Assis/ UFRJ</i>	1	1.37
<b>Care fields</b>		
Senior's health	13	17.81
Women's health	12	16.44
Family health	11	15.07
Adult health	9	12.33
Nursing management	8	10.96
Child and adolescent health	6	8.22
Other	14	19.18
<b>Study's settings</b>		
Hospital	32	43.84
Primary Health Care	14	19.18
Support groups	7	9.59
Households	5	6.85
Outpatient clinic	4	5.48
Other	11	15.07

The nursing field has primarily made use of PCA because it was created in this field of knowledge and is a profession that focuses on practice, whether it is in care, managerial or educational practice. It is not, however, restricted to research in the field of nursing, as other professions can use it in their practice routine when involving people and/or communities.

PCA has been legitimated as a process that enables to connect research and practice and has been accepted in the community of health workers, more prominently though in nursing's scientific-professional community.

Its originality consists of maintaining a strong connection between research and health-care practice, encouraging the construction of links between the research and care processes, and it also consists of interventions that lead to changes and/or innovations.<sup>6</sup>

In regard to the regional distribution of graduate programs that used PCA in the development of dissertations and theses, the South stands out with 87.67%, probably due to the fact that this modality of research was proposed by nursing professors of a graduate program in this region, which also explains the distribution of teaching institutions, that is, 72.60% of the production comes from within nursing graduate programs at the UFSC (master's and doctoral programs), where the methodology was conceived, implemented and tested.<sup>6</sup>

A large diversity of theoretical frameworks from different fields of knowledge is associated with PCA. The theoretical framework is for the researcher as a map is for a traveller in an unknown territory. It sustains the research problem, interpretation, analysis and discussion of data. Hence, it serves as a basis for the development of research and should be in harmony with the proposed theme, as well as support all the investigation's stages.<sup>6</sup> The studies using nursing theories corresponded to 60.23% of the total while the remaining (39.77%) referred to other theoretical frameworks from diverse fields of knowledge.

This shows the flexibility of using PCA, as it enables its association with different theoretical frameworks in actual practice, an important characteristic in a modality of qualitative research.<sup>8</sup>

In regard to data analysis of the selected studies, we observed that 73.97% used the modality proposed by PCA, which supports the type of research proposed. Although other forms of data analysis were incorporated, such as Bardin's con-

tent analysis (8.22%), Discourse of the Collective Subjective by Lefevre and Lefevre (5.5%), and others (12.26%). The possibility of using other techniques of analysis was verified through the method's various possibilities of use and also considering its complexity.<sup>3</sup>

The analyzed studies were listed according to thematic fields. The fields "senior's health" (17.80%) and "women's health" (16.43%) stood out, which included studies addressing the processes of daily life of elderly individuals and women in different lines of care, including two priority fields in Brazil with specific public policies. The predominance of priority fields meets the purpose of production of knowledge in nursing, which consists of understanding the needs of people and learning the best way to provide care. This is why nursing requires knowledge that permits one to approach the variety and complexity of care situations presented in the routine of the profession efficiently and ethically.<sup>9</sup>

Nursing has worked and gained visibility and recognition as science through the studies and research conducted in various fields of knowledge. We observe a substantial growth of studies and areas of professional practice in recent years, increasing the range of knowledge in various directions and spaces.<sup>10</sup> The various fields of care reflect the extent to which PCA can be used, enabling changes in the context of nursing practice and other health fields. The establishment of significant spaces in the education of increasingly more qualified professionals, whether they are experts, master's or doctoral students in nursing, has contributed to a practice based on investigative process and mastering knowledge to improve.<sup>11</sup>

The use of PCA predominantly occurs in the area of care (82.20%), followed by the managerial field (15.06%) and then teaching (2.74%). The studies' settings more frequently included hospitals (43.84%), followed by the primary health care environment (19.20%). The study's setting is "where social relationships inherent to the study's purpose take place."<sup>3:74</sup> It is in this place where research (education or management) and care is connected, in which the problem is identified, and people from diverse activities engage, whether as health workers, patients, or family members. The PCA, as a modality of qualitative research, values subjectivity, because it occurs in a continuous process of communication and interaction with social actors in the field of professional practice. The context of care practice is a potentially fertile

field for research because it encourages innovation, solutions, and renewing practice to overcome negative situations or maximize favorable situations.<sup>6</sup>

In relation to those participating in the studies selected, we verified that most studies were conducted with patients (65.75%) followed by the nursing staff (12.32%). Some studies were conducted only with nurses (5.49%); while others involved various segments of the population in the same study, such as: nurses and students; patients and a multidisciplinary team; nurses and patients; multidisciplinary teams, students and patients. A few studies (2.74%) were conducted only with undergraduate students or nursing technicians. This diversity of study participants reinforces the view that the relationships developed during the process of research and assistance "vitalizes both the live work in the field of care practice and in scientific investigation."<sup>6,382</sup> In PCA, the choice of samples shows the value of the representativeness in terms of the depth and diversity of information. This should consist of individuals involved in the study problem, who should be in a condition to provide information to enable all the dimensions of the problem to be covered.<sup>3</sup>

We also observe that there is a great diversity of study topics involving the most varied themes related to nursing care, health education, chronic diseases and education in nursing, indicating the possibility of a greater variability of themes with the use of this research modality.

The context and clientele to which PCA is directed makes it a modality of research that can contribute to the construction of specific nursing and health technologies, to the improvement of nursing practices because it enables professionals to look at their work routine in a systematized manner. Because it encourages reflection and experimentation directly linked to reality, PCA contributes to the proposition of convergent care technologies in the field of nursing, providing solutions appropriate to the context in which nursing and health practices take place.<sup>12</sup>

## FINAL CONSIDERATIONS

The use of PCA has increased considerably over the last ten years since its creation. It was born in the context of a discipline, Nursing, as an alternative to the need to reconstruct nursing practices, for the proposition of new models and appropriate solutions for concrete problems. This study enabled us to verify that it is possible to ap-

ply PCA in other disciplines in the health field and has the potential for the development of studies, in care, education and management fields.

The use of PCA in the studied theses and dissertations occurred in different fields, contexts and with different themes. This modality of research was used to seek answers to problems identified in practice, contributing new possibilities of intervention in various scenarios, not only in nursing, but also in other professions in the field of health.

This study shows the use of PCA in the studies developed in Brazilian graduate programs. By using this methodology, these studies enabled contributing to and intervening in phenomena in the health field, through which it was possible to propose appropriate solutions for concrete problems identified in these practices. This modality of research has been frequently used in the nursing field and is emerging in other health fields, in different practice settings, with varied participants. Additionally, its use coupled with different theoretical-methodological frameworks indicates its flexibility, significantly encouraging its expanded use.

Finally, this bibliometric study enabled us to characterize the use of PCA in academic production at the graduate level. Its findings provided an overview of the use of PCA as a research method, indicating its contribution to the consolidation of disciplinary knowledge. Bibliometrics is shown to be an important instrument to update and identify the production of knowledge concerning the profession and new knowledge that ground the daily routine of nursing practice, as well as of other disciplines.

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