

## The production of the professional master's degree in nursing of the Federal University of Santa Catarina, 2013-2016

*Produções do mestrado profissional em enfermagem: Universidade Federal de Santa Catarina, 2013-2016*

*Producciones de la maestría profesional en enfermería: Universidad Federal de Santa Catarina, 2013-2016*

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### ABSTRACT

**Objective:** To summarize the production of the Professional Master's Program in Nursing Care Management of the Federal University of Santa Catarina, between 2013 and 2016. **Method:** electronic documental research. After data collection, we analyzed the numbers of defenses in relation to what was predicted by the respective public notices; as well as sex, training time and professional area of the authors; scenario, context and research line; general objective, analysis support model, methodological approach, instruments/techniques of data collection, and technique of analysis; and, finally, technological productions. **Results:** 57 dissertations were found and subjected to analysis. The highest number of defenses took place in 2016, in the public scenario, in a care context, with a qualitative approach and having assistance protocols as a final product. **Conclusion:** Although the country has weaknesses in its educational system, results of the post-graduate level stand out through the technological productions of professional master's studies in nursing.

**Descriptors:** Postgraduate Nursing Education; Vocational Education; Scientific Research and Technological Development; Nursing; Applied Research.

### RESUMO

**Objetivo:** Sumarizar a produção do Programa de Mestrado Profissional em Gestão do Cuidado em Enfermagem da Universidade Federal de Santa Catarina entre 2013 e 2016. **Método:** pesquisa documental eletrônica. Após coleta de dados, foram analisados os números de defesas em relação ao previsto em edital, sexo, tempo de formação e área profissional dos autores, cenário, contexto e linha das pesquisas, objetivo geral, modelo de sustentação da análise, abordagem metodológica, instrumentos/técnicas de coleta de dados e técnica de análise e produções tecnológicas. **Resultados:** foram encontradas e analisadas 57 dissertações. Houve predomínio de defesas no ano de 2016, no cenário público, em contexto assistencial, com abordagem qualitativa e tendo como produto final protocolos assistenciais. **Conclusão:** Ainda que o país apresente fragilidades na educação, é na pós-graduação que nossos resultados têm se destacado por meio de produções tecnológicas nos mestrados profissionais em enfermagem.

**Descritores:** Educação de Pós-Graduação em Enfermagem; Educação Profissionalizante; Pesquisa Científica e Desenvolvimento Tecnológico; Enfermagem; Pesquisa Aplicada.

### RESUMEN

**Objetivo:** Resumir la producción del Programa de Maestría Profesional en Gestión del Cuidado en Enfermería de la Universidad Federal de Santa Catarina entre 2013 y 2016. **Método:** investigación documental electrónica. Después de recoger los datos, se analizaron los números de las defensas en relación con las previstas en el edicto, el género, el tiempo y el área de formación profesional de los autores, el escenario, el contexto y la línea de investigación, el propósito general, el modelo de soporte del análisis, el enfoque metodológico, los instrumentos/las técnicas de recolección de datos, y la técnica de análisis y producciones tecnológicas. **Resultados:** se encontraron y analizaron 57 tesis. Se observó predominio de defensas en el año 2016, en el escenario público, en contexto asistencial, con abordaje cualitativo, y teniendo como producto final protocolos asistenciales.

**Conclusión:** Aunque haya fragilidades en la educación de Brasil, es en el posgrado que nuestros resultados se han destacado por medio de producciones tecnológicas en las maestrías profesionales en enfermería.

**Descriptores:** Educación de Posgrado en Enfermería; Educación Profesional; Investigación Científica y Desarrollo Tecnológico; Enfermería; Investigación Aplicada.

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## INTRODUCTION

In the last decades, the Brazilian scenario of *stricto sensu* courses in nursing has undergone significant shifts pertaining the way research is conceived and executed. To understand the present and to glimpse at the future of nursing, one must look towards the past, to nursing's historical beginnings, correlating this past with current facts and considering the historical process, especially with regard to socioeconomic issues.

Since its institutionalization by Law no. 775/1949, nursing education has been undergoing a reform. As a significant example of different experimental changes, we can cite the initial proposal of the minimum curriculum that, as a result of the Law of Guidelines and Bases (LDB), No. 4024/1961, was presented and approved by the Federal Education Council (CFE) under assessment No. 271/1962, without the endorsement of the Brazilian Nursing Association (ABEn), and disregarding suggestions and substantial changes proposed by that entity<sup>(1)</sup>.

Considering this event, it is necessary to think about the professional master's degree in nursing from a future-oriented, paradigmatic perspective, since the modality has always been in harmony with the historical and epistemological scenario of *stricto sensu* postgraduation.

While the historical process allows one to follow transitions from the beginnings of nursing to the present day, epistemology establishes the conditions of objectivity for scientific knowledge and for modes of observation and experimentation, examining the relationships science establishes between theories and facts. Epistemology, however defined, deals with the nature, the origin and validity of knowledge, studying the degree of certainty of scientific knowledge in its different areas in order to ascertain its importance for the human spirit<sup>(2)</sup>.

Epistemology must subject the notion of science to a critical assessment. This becomes clear when considering that the great epistemological problems arise from crises of science concerning questions and principles, not results. In order to legitimize the new points of view to which the *stricto sensu* teaching modality, and in particular nursing, are linked, it is necessary to restructure previous theoretical frameworks and epistemological reflections. To this end, it is necessary that researchers themselves reflect on the instruments of knowledge available to science, seeking to overcome epistemological crises by reviewing the relevance of concepts, theories and methods to the problems that are the subject of their investigations<sup>(3)</sup>.

Science as a whole progresses not in the sense of successive theories converging to truth and approaching reality, but in the sense that scientific revolutions constitute transitions to better paradigms, which produce more precise solutions to ever more numerous problems, especially empirical ones. By analyzing previous paradigms, already consolidated by the scientific community, from various

perspectives, it is possible to point out gaps in knowledge, which may serve as a springboard for new ones. A new paradigm provides a practical and logical guide to avoiding *ad hoc* hypotheses, and this new outlook remains provisional until it is consolidated as a paradigm by the members of the scientific community<sup>(4)</sup>.

The scientific community must think about science as a collective activity, and for this collective activity to be realized, a unique and adequate space, able to develop itself with social legitimacy, is needed. Although this may be a truism, one can define the "scientific community" as a community structure formed by practitioners of a certain scientific specialty – in this case, researchers of the professional master's degree in nursing<sup>(5)</sup>.

As part of a select group of researchers, it is up to the members of the scientific community to define a conceptual language for the group, as a unity for producing and legitimating scientific knowledge. The members of this community should be subjected to similar education and professional initiation, absorbing much of the same technical literature and learning similar lessons. The community must have its own object of study, although the same object can be approached from different points of view by different academical areas<sup>(6)</sup>.

After this epistemological substantiation of the *stricto sensu* post-graduation, and considering that its members are primordial actors for strengthening this modality, the professional master's degree in nursing is conceived on the basis of a future-oriented, paradigmatic perspective, which aims to strengthen not only the principles of the Unified Health System (SUS), but also nursing as a science.

## OBJECTIVE

To summarize the production of knowledge by the Professional Master's Program in Nursing Care Management of the Federal University of Santa Catarina (UFSC) between 2013 and 2016.

## METHOD

### Ethical aspects

The information used in the research is in the public domain, and since data collection did not directly involve human beings, there was no need for approval by the university's Research Ethics Committee, as indicated by the National Health Council.

### Design, place and period of study

This is an electronic documental research, with a descriptive, retrospective and quantitative approach. As objects of scientific investigation, documents employed by documental studies are any documents produced by humanity which contain vestiges of its action, being able to reveal ideas, opinions, practices and ways of living<sup>(7)</sup>. Documental research as a method enables the investigation of social reality and is not limited to a single

philosophical conception of research; it can be employed in both qualitative and quantitative approaches<sup>(8)</sup>.

The data were collected by the main author of this research from January to July 2017, using the following sources:

- UFSC repository of theses and dissertations (internet)<sup>(9)</sup>, with the aim of locating dissertations within the stipulated timeframe (2013–2016). After this selection, the following data were extracted: gender, type of institution to which the research was linked and context in which it was drawn up, research line, general objective, analysis support model, methodological design, techniques/instruments for data collection, analysis technique, and the products of the dissertations.
- From the online Lattes<sup>(10)</sup> platform, we extracted authors' training area and the timeframe of the dissertation's defense.
- Postgraduate Program Website<sup>(9)</sup>: to determine if the number of defenses was in accordance with the number of vacancies made available by the respective public notice (2012, 2013, 2014, and 2015), and to confirm the research line in which the master's students were inserted, as well as the numerical distribution of defenses per year (specifically those within this study's timeframe).

#### Criteria for inclusion and exclusion of samples

Studies' abstracts were selected based on the previously established inclusion and exclusion criteria. Works published between 2013 and 2016 and fully available via electronic media and/or from the university's library were included. Studies which due to documentation issues were unavailable from the online repository or university library were excluded. The 2013 to 2016 timeframe was chosen for two reasons: first, because it was within the scope of a specific instrument for the evaluation of university courses by the Coordination of Improvement of Higher Level Personnel (CAPES); second, because it was within the scope of the four-yearly 2013–2016 evaluation report, published in 2017.

Preliminarily, in order to ensure defense dates were correct, the authors' curricula on the Lattes platform and the dissertation summaries on the UFSC program website were searched. Finally, a total of 57 dissertations were included in the final research sample.

#### Study protocol

In order to organize the analysis, the data were collected through a structured script, which allowed information on the following variables to be obtained: number of defenses per year and relationship with the number of vacancies in the respective public notice, author's gender, training time, training area, scenario where the research was developed, research context, research line, general objective, analysis support model, methodological approach, data collection instruments/techniques, analysis technique and products of the dissertation.

#### Analysis of results and statistics

The collected data were entered into a Microsoft Excel 2010<sup>®</sup> spreadsheet, according to the variables of this study's protocol, which were selected through synthesis and description, and defined in respect to the documental analysis technique<sup>(8)</sup>. This technique consists of two phases: systematization of the

documents and synthesis of the information. Thus, we tried to advance considerations on the collected data, taking into account CAPES' legislation regarding professional master's programs as well as the national scientific literature on the subject. After being transferred into Excel, the data were exported to a statistical program and, following descriptive analysis, presented with absolute and relative frequencies, in tabular form.

As the third ever program in this modality and considering the timespan of its existence, the UFSC's professional master's program in nursing has been contributing greatly to strengthen SUS guidelines and to increase the visibility of the *stricto sensu* postgraduate course in the country.

## RESULTS

The research was developed from a previously established protocol that allowed the selection of 57 dissertations from UFSC's Postgraduate Program. The distribution was as follows: 10 dissertations (17.5%) in 2013; 14 (24.5%) in 2014; 14 (24.5%) in 2015 and 19 (33.5%) in 2016.

Regarding gender, among the 57 dissertations, 52 were authored by females (91%) and 5 by males (9%). Concerning the time of professional training in years, in relation to the date of defense of the dissertation, 4 authors (7%) presented training time from 0 to 5 years; 30 (53%) between 6 and 10 years; 9 (16%) between 11 and 15 years; 7 (12%) between 16 and 20 years and 3 (5%) over 21 years of training; in 4 cases (7%) it was not possible to identify the training time via the Lattes platform.

Regarding scenario, 51 surveys (89.5%) were carried out in public institutions. For the rest of the researches ( $n = 6$ , 10.5%) it was not clear, through the textual and contextual reading of the dissertations, whether the scenario was public or private. Regarding the context, 41 surveys (72%) occurred in the care setting, followed by 12 (21%) with an organizational scope and 4 (7%) in the educational area.

As for the lines of research, 25 dissertations (44%) were linked to care and the process of living, being healthy and falling into illness; 12 (21%) to health and nursing management; 9 (16%) to art, creativity and technology in health and nursing; 7 (12%) to administration in nursing and health; and 3 (5%) to health and nursing technology; the research line of one of the studies (2%) could not be identified through the textual and contextual reading of the dissertation.

Regarding support models, 49 surveys (86%) had conceptual bases and 8 (14%) had theoretical references. Among theoretical references employed by researchers, the following stood out: Wanda de Aguiar Horta (2 studies); evidence-based practices (2); Dorothea Orem (1); Paulo Freire (1); Phillippe Perrenoud (1), and humanistic theory of nursing (1).

As for methodological approaches, 35 surveys (61%) were qualitative; 16 (28%) were quantitative and 6 (11%) had a mixed method.

It is noteworthy that 46 researchers (80%) used more than one data collection instrument/technique.

Data related to analysis techniques were grouped as follows: descriptive statistical analysis ( $n = 16$ ; 25%); convergent care research ( $n = 15$ ; 24%); content analysis ( $n = 14$ ; 23%); thematic analysis ( $n = 9$ ; 14%); classification by level of evidence ( $n = 6$ , 9.5%); strategic focal analysis ( $n = 1$ ; 1.75%); content validity index ( $n = 1$ ; 1.75%); and analyzes of the relative data ( $n = 1$ , 1.75%).

**Table 1** – Distribution of studies by training area, Rio de Janeiro, Brazil, 2018

Training area	n	%
Intensive Care Unit	13	23
Emergency service	6	10.5
Pediatrics	5	8.75
Medical clinic	4	7
Mother and child	4	7
Oncology	3	5.25
Neonatology	3	5.25
Surgical physician	2	3.5
Hemotherapy	2	3.5
Chemical Abuse Center	1	1.75
Not available	1	1.75
Nursing management	1	1.75
Hemodialysis	1	1.75
Nursing supervision	1	1.75
Nephrology	1	1.75
Burn victims	1	1.75
Professor	1	1.75
Nutrition therapy	1	1.75
Elderly care	1	1.75
Psychiatry	1	1.75
Sterilized material center	1	1.75
Coronary unit	1	1.75
Patient safety	1	1.75
Palliative care	1	1.75
Total	57	100

**Table 2** – Distribution of research goals, Rio de Janeiro, Brazil, 2018

General goal	n	%
To build	18	31.75
To elaborate	10	17.5
To propose	8	14
To develop	6	10.5
To determine	2	3.5
To identify	2	3.5
To know	2	3.5
To assess	1	1.75
To analyze	1	1.75
To sensitize	1	1.75
To establish	1	1.75
To present	1	1.75
To put into evidence	1	1.75
To perform	1	1.75
To describe	1	1.75
To implement	1	1.75
Total	57	100

**Table 3** – Distribution of data collection techniques, Rio de Janeiro, Brazil, 2018

Instrument/technique	n	%
Focus group	35	34
Semistructured interview	23	22
Documental analysis	21	20
Questionnaire	19	19
Field journal	2	2
Participant observation	2	2
Spreadsheet	1	1
Total	103	100

After completing the research, the following results were obtained as technological productions: care protocols ( $n = 36$ ; 63.16%); educational technologies ( $n = 8$ ; 14%); management protocols ( $n = 3$ , 5.25%); software ( $n = 3$ , 5.25%); standard operating procedures ( $n = 2$ ; 3.5%); flowchart ( $n = 1$ ; 1.75%); checklist ( $n = 1$ , 1.75%); performance assessment sheet ( $n = 1$ ; 1.75%); ( $n = 1$ , 1.75%); and follow-up ( $n = 1$ , 1.75%).

## DISCUSSION

The year with the most dissertation defenses was 2016, with 19 (33.5%), followed by 2014 and 2015, with 14 each (24.5%) and, finally, 2013, with 10 (17.5%). From the program's public notices, it can be verified that the numerical relation of studies and the number of vacancies are in agreement, except in 2013 (we were unable to find said year's public notice, whether in the program's website or via search engines)<sup>(9)</sup>.

As previously mentioned, 52 authors were female (91%) and 5 were male (9%). These data converge with a survey by the Federal Nursing Council (Cofen) and the Oswaldo Cruz Foundation (Fiocruz), which refers to 86.2% female respondents. In that survey, the South region stands out, third among the country's regions, with 12.7% of the total number of interviewed nurses. Among the region's states, Santa Catarina appears in third place, with 2.5% of the interviewed nurses<sup>(11)</sup>.

Because this is an applied research, one of the investigated variables was the time of professional training, and to obtain such information it was necessary to use the Lattes platform<sup>(10)</sup>, by the National Research Council (CNPq), which brings together a number of important pieces of information, such as curriculum vitae of all national scientists and researchers. According to the platform's presentation document, there are more than three million curricula, giving access and transparency to these professionals' activities. Data from the Lattes platform cover not only professional researchers working in science, but also postgraduate and undergraduate students<sup>(12)</sup>.

Regarding what we call "professional expertise," Kuhn has a consideration that is pertinent to the master's degree in nursing scenario: sometimes, a common problem, which should be solved by known rules and procedures, resists the violent and repeated attack of the most skillful members of the group in whose area of competence it occurs. However, when the members of the profession can no longer avoid the anomalies that subvert the existing tradition of scientific practice, extraordinary investigations begin, finally leading the profession to a new set of commitments, a new basis for the practice of science<sup>(4)</sup>.

In a search in the databases of the Virtual Health Library (VHL) and other databases such as CAPES' and the Cumulative Index to Nursing and Allied Health Literature (CINAHL), we were unable to find scientific publications that compared the time of professional training with the degree of expertise in a certain area of professional activity. Although it is public knowledge that some recognized associations in the country provide evidence of professional qualification based on training time and performance in specific areas, some societies recognized nationally and internationally take the following criteria into consideration when conferring someone a specialist degree:

that the professional has a registration in the respective Nursing Board, and at least five years of experience as a nurse in the respective qualification area<sup>(13-15)</sup>.

In the study carried out by Cofen and Fiocruz, it can be verified that professional activities of Brazilian nurses are in fact contemplated by researchers of the studied dissertations<sup>(11)</sup>.

The 57 dissertations cover 19 of the subitems suggested by the National Agenda for Priorities in Health Research (ANPPS), lacking only in the following areas: health of indigenous peoples; health of the black population; epidemiology; demography and health, and pharmaceutical assistance<sup>(16)</sup>.

Referring to 11 topics directly related to the field of nursing, the ANPPS brings up 5 transversal topics, 3 vertical topics regarding vertical action, and 3 thematic topics, referring to population groups<sup>(17)</sup>.

The postgraduate program has been taking ANPPS' priorities into consideration, with focus on the transversal topics, followed by population groups. The integration of the aforementioned topics allows for a reconciliation of the disciplinary and interdisciplinary characteristics of the nursing field. The disciplinary facet of a field of knowledge is recognized as an essential condition for interdisciplinarity, safeguarding the proper identity of the field<sup>(17)</sup>.

Regarding the scenario in which the research was carried out, the results of any given variable may be related to certain particularities of the program's public notices. The number of studies is associated with the type of institution that offers the courses, because all institutions were public and associated with a university hospital<sup>(9)</sup>.

According to the Brazilian Academy of Sciences, there was an expansion of postgraduation in public universities and, concurrently, an expansion of the federal university system. According to the document, this growth has occurred in terms of both quantity and distribution, and enormous progress has been made in the last decades, especially in the first decade of the 21st century<sup>(12)</sup>.

As to the context in which the studies were outlined, as mentioned before, 41 of the dissertations were developed in the care field (72%); with 12 at the organizational level (21%) and 4 at the educational level (7%). We understand that these proportions are due to the historical beginnings of nursing, which were strongly influenced by the biomedical model. It is worth pointing out that, as in other professions, in nursing the professional incorporates, through his training, the knowledge of several sciences.

Over time, nursing has gained notoriety and established itself as an independent science, with a specific field of knowledge, becoming a profession of social character that, by its very nature, acts upon the individual and collective scope. Nursing care and its epistemological and practical objects can be said to express an assistentialist tendency; it is necessary to consider, however, other spheres of action that are closely intertwined with the care field, such as the organizational and educational spheres<sup>(18)</sup>.

Regarding lines of research, Kuhn says that no experiment can be conceived without the support of a theory, i.e., a line from which research can be developed and executed. For the author, the researcher/scientist in a state of crisis will constantly try to generate speculative theories that, if successful, can pave the way for a new paradigm and, if unsuccessful, can be abandoned with relative ease<sup>(4)</sup>.

As history is always a dynamic process, we understand that, in order to do science in this modality of teaching, there is still a long way to go: after all, this science would have to be comprehended, perceived and experienced in its various dimensions—social, academic and professional—until accepted by the entire scientific community. Thus, we believe that research lines of the nursing professional master's degree aim at enhancing research in this field of knowledge and, at the same time, providing a response to social needs, generating products and processes that effectively contribute to social transformation.

The Bloom taxonomy is used in different areas; it is considered a science of classification, naming and organization of a predetermined system, resulting in a framework for discussion, analysis and/or retrieval of information. As the professional master's degree is derived from applied research, it must contain verbs that indicate application, analysis and synthesis, aiming at acquiring or generating new knowledge through new processes or products, for the immediate solution of specific problems, with a practical purpose. According to Bloom's taxonomy, then, the general objective presented in the dissertations is in line with the proposal of the professional master's degree<sup>(19)</sup>.

Even if the use of an explicit theoretical framework is not a legal requirement of master's programs, Kuhn says that an (albeit small) part of normal theoretical work is simply using the prevalent theory to predict information with intrinsic value<sup>(4)</sup>. According to the *stricto sensu* graduate programs of the master's modality (whether academic or professional), it is not necessary for master's students to use a support model for their researches. The data confirm this scenario by showing that 49 of the surveys (86%) had conceptual bases.

Regarding methodological approaches, we note that the data exposes a historical remnant of the origins of nursing, a profession that values intersubjective relationships in its research practices. It is known that, at present, scientific tendencies are debated according to two paradigms, the quantitative and the qualitative; in many areas of knowledge, the search for evidence ever closer to the human reality ends up integrating these two paradigms, arriving at the so-called "mixed research" method<sup>(20)</sup>.

For Kuhn<sup>(4)</sup>, the world of the scientist is transformed both qualitatively and quantitatively, and enriched, by fundamental novelties of facts and theories. Therefore, the method in itself is not capable of giving relevance to a research; rather, relevance lies in the way in which the research is conducted, since the selection and formulation of problems, both in quantitative and qualitative sciences, simply envision the clarification of the current paradigm by means of its reformulation.

The production of knowledge in Brazil has always been linked to the growth of postgraduation. Thus, with the consolidation of the master's degree in nursing, it was possible to establish its scientific base and form human resources trained to expand the modality. In this sense, we conclude that the historical goal of structuring the *stricto sensu* nursing modality has been achieved: a training system able to empower researchers to raise nursing to the hall of emerging professions, both nationally and internationally, has been effectively created<sup>(21)</sup>.

Table 3 showed the methodological characteristics of the instrument/data collection technique, by pointing out that 35

dissertations used focal groups (36%); 23, semi-structured interviews (23.5%); 21, documental analysis (21.5%); and 19, questionnaires (19%). It is worth mentioning that about 80% of the researchers used more than one instrument/technique of data collection.

Reflecting upon the three most used data collection techniques/instruments, one can highlight some peculiarities that make these techniques feasible: (1) *focus groups*: they are compact, and assembled to evaluate concepts or identify problems; (2) *interviews*: they have flexibility in their application, while their protocols and procedures for confirmation and clarification of responses are easily adapted, and they also have high response rates, being applicable even to people who cannot read; (3) *documental*: low cost, reduced procurement time and stable information<sup>(22)</sup>.

Data related to analysis techniques were grouped as follows: descriptive statistical analysis ( $n = 16$ ; 25%); convergent care research ( $n = 15$ ; 24%); content analysis ( $n = 14$ ; 23%); thematic analysis ( $n = 9$ ; 14%); classification by level of evidence ( $n = 6$ , 9.5%); strategic focal analysis ( $n = 1$ ; 1.75%); content validity index ( $n = 1$ ; 1.75%); and analyzes of the relative data ( $n = 1$ , 1.75%).

Regarding techniques of analysis, convergent assistance research stands out, considering the fact that its creators, Mercedes Trentini and Lygia Paim, were university teachers<sup>(23)</sup>. Regarding evidences obtained by this technique of analysis, it is interesting to note that Kuhn emphasizes that only after having been part of the scientific community for some time, can a research line acquire the appearance of a theory belonging to a higher logical level, avoiding conflicts with its predecessors<sup>(4)</sup>.

Technical and technological production in nursing, usually attributed to permanent teachers or students, is not characterized as scientific production. Examples of this production are identified by processes of interaction between academia and society, resulting in different forms of specialized products and services, presenting possibilities of transforming healthcare and nursing processes. Technical and technological production incorporates the following criteria: patentable or non-patentable product, training and permanent education, dissemination of production and specialized technical services. The evaluation of technical production has to consider its contribution to stricto

sensu formation, adherence to the proposal and objectives of postgraduate programs, the principles of multi/interdisciplinarity and its contribution to society<sup>(18)</sup>.

Master's programs in the health area contribute to the training of human resources, especially with regard to the construction of innovative health practices, scientific principles, qualification, professional insertion and student empowerment. Thus, the literature suggests that, although there are challenges yet to be faced, master's programs in the health area contribute positively to the academic and professional environment<sup>(24)</sup>.

### Limitations of this study

The first considerable limitation of this study was its timeframe (2013 to 2016), which does not contemplate all the program's dissertation defenses. In addition, because of the particularities of each of the professional master's programs in nursing, it is necessary to think about the research developed by these programs in order to evaluate the impact of their technological productions in three areas: product incorporation, change in the work process and quality of service. In dialectical terms, it is a matter of knowing what a certain professional master's degree in nursing has achieved in its time of operation.

### Study contributions

This study aimed to give greater visibility to professional master's programs in nursing, demonstrating that, through applied research, it is possible to contribute to SUS guidelines and strengthen nursing research.

### CONCLUSION

Although the country presents weaknesses in basic education and higher education, it is in the postgraduate educational level that our results stand out and are recognized nationally and internationally. In a period of less than two decades, the professional master's programs in nursing, including the program of the Federal University of Santa Catarina, have effectively contributed to reduce the gap between the academy and the world of work, making it possible, through innumerable technological products, improvements in the most varied nursing-intersecting areas.

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