ARTICLE

Research agenda in graduate programs (stricto sensu) in the theme Health Education in the period of 2015–2019

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ABSTRACT

This study aimed to systematize the academic production related to the theme Health Education, developed in graduate programs from Brazil. For operational reasons, the four-year period 2015–2019 was chosen, by the same period in which Coordination for the Improvement of Higher Education Personnel evaluate the graduate programs. The systematization process was carried out between the months of August and December 2020, using the technique of integrative review in order to the inclusion and exclusion of documents concerning the objective of the study. The data indicate that the area of Education had a very low performance from the point of view of the production of thesis and dissertations, when compared to the areas of Nursing, for example. It is possible to indicate a distance from the area of Education in relation to the theme Health Education. It is concluded, therefore, that the focal theme of this study is weakly influenced and/or has a weak contribution from education, which can constitute an important deficit for the development of the theme Health Education in the Brazilian context.

KFYWORDS

education; health education; state of knowledge.

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AGENDA DE PESQUISA EM PROGRAMAS DE PÓS-GRADUAÇÃO (STRICTO SENSU) NA TEMÁTICA EDUCAÇÃO EM SAÚDE NO PERÍODO 2015–2019

RESUMO

Este trabalho teve como objetivo sistematizar a produção acadêmica referente à temática Educação em Saúde desenvolvida em programas de pós-graduação no Brasil. Por questões operacionais, optou-se pelo recorte quadrienal 2015–2019, mesmo período em que os programas de pós são avaliados pela Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. O processo de sistematização realizou-se entre os meses de agosto e dezembro de 2020, utilizando-se da técnica de revisão integrativa com vistas à inclusão e à exclusão de documentos concernentes ao objetivo do estudo. Os dados indicam que a área de Educação apresentou uma *performance* muita baixa do ponto de vista da produção de teses e dissertações quando comparada com a área de Enfermagem por exemplo. Pôde-se indicar um distanciamento da área de Educação em relação ao tema Educação em Saúde. Conclui-se, portanto, que a temática focal deste estudo é pouco influenciada e/ou tem pouca contribuição da educação, o que pode constituir-se em um importante déficit para o desenvolvimento da temática Educação em Saúde no contexto brasileiro.

PALAVRAS-CHAVE

educação; educação em saúde; estado do conhecimento.

AGENDA DE INVESTIGACIÓN EN PROGRAMAS DE POSGRADO (STRICTO SENSU) EN EL TEMA EDUCACIÓN EN SALUD EN EL PERÍODO 2015–2019

RESUMEN

Este trabajo tuvo como objetivo sistematizar la producción académica relacionada con el tema educación para la salud, desarrollado en programas de posgrado en Brasil. Por razones operativas se eligió el cuatrienio 2015–2019, mismo período en el que la Coordenação de Aperfeiçoamento de Pessoal de Nível Superior evalúa los programas de posgrado. El proceso de sistematización se llevó a cabo entre los meses de agosto y diciembre de 2020, utilizando la técnica de revisión integradora con miras a la inclusión y exclusión de documentos referentes al objetivo del estudio. Los datos indican que el área de Educación presentó un desempeño muy bajo desde el punto de vista de la producción de tesis y disertaciones, en comparación con las áreas de Enfermería por ejemplo. Se pudo señalar una distancia del área de Educación en relación con el tema Educación para la Salud. Se concluye, por lo tanto, que el tema focal de este estudio está poco influenciado y obtiene poca contribución de la educación, lo que puede constituir un déficit importante para el desarrollo de la Educación para la Salud en el contexto brasileño.

PALABRAS CLAVE

educación; educación para la salud; estado del conocimiento.

INTRODUCTION

There are various ways to enter a field of knowledge. This study understands that one of the gnoseological presumptions of research is to verify; by verifying to intervene; and by intervening to educate and be educated (Freire, 1996).

With this understanding, the objective of this study is to systematically explore the production of knowledge about the theme of Healthcare Education in the database of thesis and dissertations maintained by Brazil's Coordination for the Improvement of Higher Education Personnel (CAPES) in the years from 2015 to 2019. Healthcare Education is understood as "[...] a tool to promote and stimulate self-care [...]", (Janini, Bessler and Vargas, 2015, p. 489, our translation). The proposal stems from the need to identify the knowledge inherent to knowledge produced, which is a process dedicated to identifying levels of distancing or approximation of fields, and in this definition, to verify how this issue was treated in the realm of graduate programs dedicated to the production of thesis and dissertations from 2015 to 2019 that examined Healthcare Education. We understand that the problematization of the issue points to the "[...] expansion of knowledge and helps to identify the agenda assumed by the epistemic community." (Alves-Mazzoti and Gewandsznajder, 1999, p. 182, our translation).

The research assumes procedures of a qualitative and quantitative character, in which the methodological actions involve a bibliographic approach to the theme, to locate and produce historic, social, and political reflections about Healthcare Education. As an integrative review, the descriptor used in the research was "Educação em Saúde" [Education in Health], and the time frame was from 2015 to 2019.

The data raised in the survey was organized in categories, that is, it used a working logic concerning that "[...] which we can only place in classes and verify their frequency in classes [...]" (Gatti, 2004, p. 14, our translation). According to this information, and in general, the categorization was undertaken along two axes: a quantitative one, based on the number of studies identified, and a qualitative one, through a reading of the abstracts [that is of the *resumos* which are the Portuguese versions of the abstracts], according to the criteria for inclusion.

Finally, this study is organized into two general stages. The first is a theoretical discussion about healthcare education based on authors such as Guimarães and Velardi (2008), Câmara *et al.* (2012), Reis *et al.* (2013), Falkenberg *et al.* (2014), Paes and Paixão (2016), Sevalho (2018) and Nascimento (2020). The second is a quantitative and qualitative presentation of the results of the integrative review of CAPES' database of thesis and dissertations. Finally, the conclusions are presented with indications for other research and new problematizations.

IN SEARCH FOR A DEFINITION

According to Brito and Domingos Sobrinho (2009), Healthcare Education is a resource by which knowledge that is scientifically produced in the field of health is intermediated by healthcare professionals and affects the daily life of people. Thus, "[...] the understanding of the process of health and disease stimulated by

educational practices in healthcare allows the adoption of new healthcare habits and conduct." (Brito and Domingos Sobrinho, 2009, p. 670, our translation). Câmara *et al.* (2012, p. 41, our translation) highlight:

Healthcare education arose as a strategy to promote healthcare and primary and secondary prevention and should be a social practice focused on the problematization of daily life, by valuing the experience of individuals and groups, with a reference in the reality in which they are inserted. It is the sum of all the experiences that modify or influence an individual's attitudes or conduct in relation to healthcare and to the processes that need to be changed. The objective is to stimulate people (the target public/population) by conducting actions to promote healthcare — whether through the adoption of healthy living habits, or by the correct and careful use of healthcare services available to them. It stimulates awareness in decision making, both individual and collective, to improve their health and environmental conditions. It also strives to develop in people a sense of responsibility for their own health and for the health of the community to which they belong and the ability to participate in community life more constructively. This education in healthcare has a large role in decreasing the distance found between scientific discoveries/studies and their application in the daily lives of people. It is also the connection between the expectations of the population for a better life and the projections and estimates of governments upon offering healthcare programs more suitable to this population.

Many studies about Healthcare Education frequently cite the term "habits" without greater epistemological problematization, although they affirm that individuals should critically construct their own healthcare, and that "[...] in addition to [observing] signs and symptoms of disease and their impact on the functioning of individuals, [they should] focus on understanding social, psychological and environmental factors that can influence all of the functions exercised." (Câmara et al., 2012, p. 42, our translation). However, if healthcare education has historically followed certain standards of behavior, what is new and what is a continuation when terms such as "habits" are used in the theoretical construction of healthcare in agreement with the praxis of social transformation of Healthcare Education? This question can be grasped from a historical perspective by the various theoretical and methodological perspectives that permeate the theme. As Nascimento (2020, p. 37, our translation) indicates:

Over time, the field of Healthcare Education was consolidated as a field marked by a plurality of theoretical and methodological perspectives, becoming a field that is difficult to classify or frame. Located at the frontier between the social sciences and healthcare sciences, Healthcare Education faces a great challenge, which is to deal with the internal plurality of ideas, while simultaneously maintaining the coherence of its epistemological support. If on one hand we find in this field a strong influence of Positivism as an expression of a legacy

of biomedicine, on the other it is certain that we also find the incorporation of perspectives that are averse to the positivist mode of defining science and operating methodologically. This is the case of Paulo Freire, one of the theorists with a strong presence in Healthcare Education. By sketching a certain concept of popular education, he wound up influencing various studies conducted in the field of healthcare, particularly since the 1980s.

Two statements in the work of Falkenberg *et al.* (2014, p. 848, our translation) highlight who are the professionals involved in Healthcare Education practices:

The practices of healthcare education involve three priority segments of actors: healthcare professionals who value prevention and promotion as well as curative practices; administrators who support these professionals; and the population that needs to construct its knowledge and increase its autonomy of care, individually and collectively. Although the definition of the Ministry of Health presents elements that presuppose this interaction between the three segments of strategies used to develop this process, there is still a large distance between rhetoric and practice [...]. Healthcare education as a political-pedagogical practice requires the development of critical and reflexive thinking, which allows revealing reality and proposing transformative actions that lead individuals to their autonomy and emancipation as historic and social subjects, capable of proposing and giving opinions in healthcare decisions about care for themselves, their families and collectivities.

Considering the situation of the practices of Healthcare Education, two problems are present. The first is the failure to recognize schools and teachers as important spaces and agents for Healthcare Education, and consequently for its promotion, restricting the opportunity to speak to healthcare professionals. The second is the affirmation about the distance between theory and practice, which we understand and agree is one of the causes — in addition to political dimensions — of the non-recognition of the problematic as a totality. As Guimarães and Velardi (2008, p. 7, our translation) affirm, "[...] we suppose that any school programs dedicated to health should promote pedagogical actions based on the Ideals of Healthcare, but for this to occur it is necessary to consider the school as a space that promotes healthcare." Other authors, such as Reis *et al.* (2013, p. 219, our translation), affirm:

Healthcare education is a field of knowledge and practice in the healthcare sector whose purpose is to promote healthcare and act to prevent diseases. It is a resource by means of which knowledge that is scientifically produced in the field of health, with the assistance of its professionals, can reach the daily life of people. Its objective is to integrate scientific and popular knowledge, in an attempt to help individuals have greater responsible participation and autonomy in relation to health in daily life. It should also be understood as a space where the population can reflect critically, giving value in a collective manner

to its forms of learning, grasping and explaining knowledge about social and family life.

By proposing a discussion about schools as spaces to promote healthcare, the valorization and integration of professionals should occur from a dialogical perspective, as affirmed by various authors who address Healthcare Education. We concur with Iervolino and Pelicioni's (2005, p. 100-101, our translation) declaration about the importance of teachers as agents of civil society in the promotion of healthcare:

The training of teachers for healthcare education, based on the Promotion of Health, should be part of the academic education of these professionals, and included in the curriculum. However, to make this training effective it is necessary to incorporate positive values and concepts related to health. To do so, it is essential that, after the first contact with the theoretical foundation about healthcare promotion and education, which occurred during academic training, the teacher is inserted in a process that allows them to revise their understanding and improve their knowledge about the process of being born, living, aging, illness and dying. [...] Training of teachers to teach and learn Healthcare Promotion and Education must be permanent, and necessarily linked to dynamic, uninterrupted, and updated action, and should not be seen as a form of attending to the deficiencies of undergraduate education.

Finally, after problematizing concepts about Healthcare Education observed in other studies and verifying some theoretical and critical gaps concerning where to promote healthcare and who promotes it, we understand that:

[...] healthcare promotion actions aim to develop knowledge, abilities, and skills for selfcare of health and the prevention of risky behavior in all educational opportunities and thus, the empowerment of subjects; and to support an analysis about the values, conduct, social conditions and lifestyles of the subjects involved. (Gonçalves *et al.*, 2008, p. 182, our translation)

Therefore, "[...] the importance of the theme is clear, [...] given that health-care education can contribute to the formation of a critical awareness of students, culminating in the acquisition of practices dedicated to the promotion of their own health and that of the community in which they are inserted." (Paes and Paixão, 2016, p. 82, our translation). As part of this process, Healthcare Education must be critically developed in an integrated manner, involving the knowledge not of the students (which is essential), but of the educators from a critical perspective in dialog with healthcare professionals.

HEALTHCARE EDUCATION IN THE REALM OF NATIONAL CURRICULUM PARAMETERS: INITIAL APPROXIMATIONS

Considering the contributions of Marinho and Silva (2013) about the theme of Healthcare Education in the realm of the National Curricular Parameters

(PCN, in the Portuguese acronym), it can be seen that the object of healthcare is expressed both from a perspective of the human being and of health and, in this way, is this linked to the transversal theme of health. As Marinho and Silva (2013) indicate, considering both perspectives, the PCN have sharp limitations related to fulfillment of the objectives and goals, due to their conceptual fragilities. In this sense, the issues of healthcare in school come to be a component of the Healthcare in School Program (PSE, in the Portuguese acronym), established under the legal scope of Decree No. 6.286, of 2007 (Brasil, 2007a). In an attempt to expand in relation to the previous perspectives found in the PCN, the decree mentioned highlights that, for the purpose of the theme of healthcare in school, it is necessary to contribute to the integral education of students, by means of procedures that contribute to prevention, promotion, and attention to health, according to Marinho and Silva (2013).

Meanwhile, for Marinho, Silva and Ferreira (2015), the theme of healthcare in the school environment, and more precisely in fundamental education, according to the PCN, indicates that students should know and care for their own bodies, through procedures related to healthy habits. More specifically:

On the one hand, it is emphasized that presenting information and offering descriptions is not enough to have students develop healthy attitudes; on the other, the PCN understand that healthcare education consists in the formation of habits and attitudes that develop in school, with this conception, we foresee that the guidance present in the document escapes our understanding of healthcare education, which appears to us to go beyond the simple acquisition of habits and attitudes, and tries to have the subject become aware of her acts. (Marinho, Silva and Ferreira, 2015, p. 435, our translation)

With the Law No. 9.394/96, of 20 December 1996 (Brasil, 1996), which is known as the Law for the National Education Guidelines and Bases (LDB, in the Portuguese Acronym), and the construction of the PCN, healthcare education came to be considered a transversal theme. However, it is necessary to be careful with how the theme of transversality is treated in official documents, in which it is grasped in an artificial manner and as an isolated element in daily school life. As Sevalho (2018, p. 184, our translation) affirms:

The current opinion that education is transversally contextualized and that all action in healthcare is, in itself, educational, should thus be carefully appreciated: the acritical acceptance of the transversality of healthcare education can reinforce the perspective that the discussion and planning of educational actions are not necessary; the belief that everyone is always realizing educational actions can establish the idea that to conduct healthcare education it is not necessary to know the theme or the method, that improvisation is enough; it is important to identify intentionality of actions, because education in healthcare can be medicalizing and serve as a powerful tool for domestication, establishing social vulnerabilities.

Moreover, according to the PCN, as Paes and Paixão (2016) affirm, even without a specific space to address the theme, contents related to health and disease have been incorporated to the Brazilian school curriculum since the nineteenth century. Thus, "[...] disciplines such as hygiene, Prenatal care, Nutrition and Diet or Physical Education, and more recently Natural Sciences and Biology, transmit knowledge related to the mechanisms by which the individuals get sick and/or assure their health." (Paes and Paixão, 2016, p. 86, our translation). The authors also highlight:

Currently, despite the determinations of the PCN, the issue of Healthcare Education is understood in most Brazilian schools as specific interventions, related to contents related to topical issues. For example, it discusses dengue because it is an epidemic that affects society. The authors also report a conflictive relationship between health and education in relation to school health, affirming that when this is thought of in an exclusively medical perspective focused on the control and prevention of disease it is weakly effective in terms of changing attitudes that lead to healthier life options. (*ibidem*)

Also according to Marinho, Silva and Ferreira (2015), it is found that the PCN consider health as an object of school education, and, in this sense, that it should be treated as one of the main strategies for the promotion of healthcare. However, the authors emphasize as a contradiction the fact that, with an emphasis on the biological aspects, the debate is led within the PCN to the question of disease in detriment to health. This obviously limits the reflection and the development of a healthcare culture.

However, the inclusion of the issue of health under the scope of the PCN is an important mark in the process to include the theme of health in the education of students by defining possibilities for pedagogical didactic interventions for learning.

Thus, debate about the issue of Healthcare Education in the environment of Brazilian education, particularly in the PCN, became a transversal theme in "health" indicating that, beginning in 1990, this theme became strengthened and expanded in relation to previous years, based on the promulgation of the PCN, according to Marinho, Silva and Ferreira (2015).

For these authors, the perspective of transversality established a strong opportunity for change and a renovation in education, and the option for interdisciplinarity would be a key way to conduct this change. In this way, the PCN would contribute, in this context, to bring to schools issues linked to life, daily issues, perhaps those from the day to day world of children.

For these authors, the issue is highlighted in the thematic block of "human being and health" of the PCN of the Natural Sciences. However, Marinho, Silva and Ferreira (2015) maintain that Healthcare Education in the school environment should go beyond the limits of the natural sciences, which are basically related to three aspects described by the authors: the human body, hygiene and nutrition.

This perspective required students to develop healthy habits and was criticized by some authors given that it has important limitations, such as the lack of requirements referring to the subjects' awareness about their decisions.

That is, in the realm of the PCN, Healthcare Education carries a strong influence from the natural sciences limiting the look and practices in this area, which are "incapable of overcoming" the conceptual limitations stemming from the idea of healthcare as an expression of the type positive/negative, health/disease. To the contrary, it requires theoretical, pedagogical didactic procedures that treat the perspective of health as a socio-cultural expression that respects previously established knowledge, which, articulated to knowledge in systematized technical health, allows the autonomy of the subjects involved.

SURVEY IN THE COORDINATION FOR THE IMPROVEMENT OF HIGHER EDUCATION PERSONNEL DATABASE OF THESIS AND DISSERTATIONS (2015–2019): METHODOLOGICAL PROCEDURES

After the bibliographic survey, which focused on the conceptual debate about Healthcare Education, we present the integrative review of the thesis and dissertations available on the CAPES database. As Noronha and Ferreira (2000, p. 192, our translation) affirm, integrative reviews are:

[...] studies that analyze the bibliographic production in a certain thematic area, within a timeframe, providing a general overview or a report of the state of the art about a specific topic, revealing new ideas, methods, and subthemes that have received greater or lesser emphasis in the literature selected. Thus, consulting an [integrative] review helps a researcher learn, from a single source, what took place or is taking place periodically in the field studied, and can substitute the consultation of a series of other works. A review can also contribute to suggestions of ideas for the development of new research projects.

Thus, based on these authors, this survey is of a thematic scope, in which the review was based on a specific focus (Healthcare Education), and the descriptors originally used were: Educar para a Saúde [Educate for Health]; Educação Sanitária [Sanitary Education]; Educação para a Saúde [Education for Health]; Educação para a Saúde Comunitária [Education for Community Health]; and Educação em Saúde [Education in Health]. The descriptors were defined by consulting the multi-lingual virtual library of Health Sciences Descriptors (DeCS, in the Portuguese acronym) for the search term "Educação em Saúde" [Education in Health] and the respective synonyms. The approach is bibliographic, that is, it consists in an epitome of the documents identified, considering that the initial reading reviewed only the titles of the works and their respective resumos [abstracts] to identify productions that actually concern Healthcare Education. As mentioned, the time period defined was between 2015 and 2019.

The search process on the CAPES database of thesis and dissertations was based on Boolean operators — which CAPES itself indicates for conducting searches — to attain greater precision and response. A Boolean search is "[...] a technique or set of rules to allow an encounter between a question formulated

and information stored in a data base." (Lopes, 2002, p. 61, our translation). The usual logical operators in the expressions of the searches are: *AND* (e), *NOT* (não), *OR* (ou). As Furnival (2002) affirms, the two operators most used — E (AND) and *OU* (*OR*) — "[...] perform operations of addition, but the results are quite different: OR expands the sum, including both concepts; AND reduces the sum including both concepts." (Furnival, 2002, p. 24, our translation and our highlights). For this study, in addition to using the operator *OR*, quotation marks were used to delimit the words in the search field, with the following expression: "Educar para a Saúde" [Educate for Health] OR "Educação Sanitária" [Sanitary Education] OR "Educação para a Saúde" [Education for Health] OR "Educação em Saúde" [Education in Health].

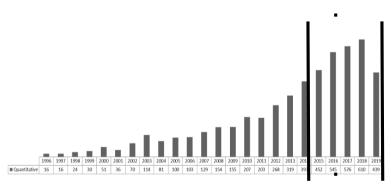
Before presenting the quantitative search results, it is important to highlight that the choice of logical operators directly influences the number of documents retrieved. For this reason, the entire process of recovering information should be highly transparent in any research process, not only to assist the continuation of studies about a state of knowledge, but to analyze their methodology. An example of this was the study by Santos, Teodoro and Queiroz (2016), which utilized the expression AND to map studies produced in Brazil and Portugal (2000–2013) using the expressions educação em saúde [education in health] AND serviços de saúde escolar [school healthcare services] AND Brasil e educação em saúde [Brazil and healthcare education] AND serviços de saúde escolar [school healthcare services] AND Portugal on the databases of Literatura Latino-Americana e do Caribe em Ciências da Saúde [Latin American and Caribbean Health Sciences Literature] (LILACS), MED-LINE, Redalyc and *Repositório Científico de Acesso Aberto de Portugal* [Open Access Scientific Repository of Portugal (RCAAP), which generated a small number of documents (106 articles). Explicit criteria for the choice of the descriptors are not present, with the sole indication "[...] keywords validated by the Descriptors in Health Sciences (DECS) for searches on data bases [...]" (Santos, Teodoro and Queiroz, 2016, p. 14, our translation). It is not clear what terms were used to select the descriptors, nor the justification for the use of AND, and if quotation marks were used on the "compounded terms", given that the descriptor recovers the registers that contain the words together.

The production of knowledge is not an isolated enterprise. It is a collective construction of the scientific community, a continuous search process, in which each new investigation is inserted, complementing or questioning previous contributions made to the study of the theme. The formulation of a relevant research problem therefore requires that the researcher be situated in this process, critically analyzing the current state of knowledge in their field of interest, comparing, and finding theoretical-methodological approaches used and evaluating the weight and reliability of the research results, to identify points of consensus, as well as controversy, shadowy regions and gaps that deserve to be clarified. (Alves-Mazzoti and Gewandsznajder, 1999, p. 180, our translation)

Therefore, for the study conducted with the expression "Educar para a Saúde" OR "Educação Sanitária" OR "Educação para a Saúde" OR "Educação para a Saúde" OR "Educação em Saúde", more than 100 thousand studies were identified. It is important to highlight that the number can be apprehended by the generality of the expressions, which may be cited in sentences, keywords or other fields of record, and it was found that the search for "Educação em Saúde" identified a much smaller number of documents, which is attributed to its more defined semantic scope. It should be emphasized that, at this time, criteria were applied for inclusion and exclusion to improve the processes of reading, analysis and cataloging of the studies found, that is those that include the term "Educação em Saúde", are academic works published in Portuguese, and are the location of repetitive works.

RESULTS

After the general search was conducted using the Boolean operators, in keeping with the objective of the study, the use of the term *Educação em Saúde* [literally Education in Health] was used in the search field of the CAPES database of thesis and dissertations. This process identified 5,091 studies, with the first ones cataloged in the platform in the year 1996, as can be seen in Graph 1.



Graph 1 – Quantitative production "education in health" (1996–2019). Source: Elaborated by the authors.

Graph 1 highlights that, between the years 2015 and 2019, 2,622 studies were published whose *resumos* and keywords were read, and analyzed. Of these were cataloged 2,088 studies that met the criteria for detection of evidence related to the epistemological concept and to the structural forms established through the formulation of policies of/for healthcare, professional education and the educational practices dedicated to Healthcare Education.

The results show a progressive increase in the number of works that cite, in their *resumo* [abstract] or keywords, the term "Educação em Saúde", with an expressive number in the year 2018, when there were 610 studies for which this field of knowledge was the object of study.

The number of studies produced in the period between 1996 and 2019 can be divided by the following programs: doctoral (928); master's (2,729); professional master's (1,219); and professionalization master's (215). Use of the timeframe and the criteria for inclusion established for this study obtained the following: doctorates (357); master's (916); and professional master's (815). Of these, Nursing and Collective Health were the programs that had the largest number of studies with the term, as can be seen in Chart 1.

Chart 1 – Highest quantity of studies: production per field.

Courses / fields of knowledge	Amount (1996–2019)	Amount (2015–2019)
Nursing	1,614	782
Collective Health	751	334
Biological Health	412	292
Teaching	264	207
Medicine	250	107
Science and Math Education	249	181
Education	215	66
Odontology	193	64
Interdisciplinary	140	34
Public health	130	87

Source: Elaborated by the authors.

Master's dissertations accounted for the most publications, and the field of Nursing had the highest number of studies in the period. This higher quantity may be the reflection of the educational approach found in this field: the educational process is regularly a transversal axis of knowledge and practice in nursing programs.

The total number of studies by institutions of higher education (IES, in the Portuguese acronym), without distinguishing by the level of education, is presented in Chart 2.

Chart 2 - Institutions with the most publications

Instituition	Initials	Amount (1996–2019)	Amount (2015–2019)
Universidade de São Paulo	USP	471	189
Universidade Federal do Ceará	UFC	306	136
Fundação Oswaldo Cruz	Fiocruz	254	119
Universidade Federal de São Paulo	Unifesp	218	112
Universidade Federal de Minas Gerais	UFMG	184	92
Universidade Federal de Pernambuco	UFPE	173	118
Universidade Federal do Rio Grande do Sul	UFRGS	138	50
Universidade Federal Fluminense	UFF	81	48
Pontifícia Universidade Católica de São Paulo	PUC-SP	80	48

Source: Elaborated by the authors.

The Universidade de São Paulo (USP) is the institution with the most publications about the theme, followed by the Universidade Federal do Ceará (UFCE) and the Fundação Oswaldo Cruz (Fiocruz) in Rio de Janeiro. Chart 2 indicates that the highest number of publications come from Brazil's Center and South regions — particularly the states of São Paulo, Rio de Janeiro and Minas Gerais —, followed by the country's Northeast region — highlighted by the states of Ceará and Pernambuco. The chart confirms the higher quantity of academic productions in the fields of Nursing and Collective Health in all regions.

In relation to the number of studies supervised, regardless of the level of education, Chart 3 presents the names of the supervisors followed by their institutional affiliation when the research was conducted.

Chart 3 – Supervisors of the most projects.

Supervisor (A)	Amount	Institution
Mônica Oliveira Batista Oriá	12	UFCE
Neiva Francenely Cunha Vieira	12	UFCE
Heloísa de Carvalho Torres	10	UFMG
Rogério Dias Renovato	9	UEMS
Sandra Maria Cezar Leal	9	UNISINOS
Fábio Augusto Rodrigues e Silva	8	UFOP
Luciana Hoffert Castro Cruz	8	UFOP
Vânia Celina Dezoti Micheletti	8	UNISINOS

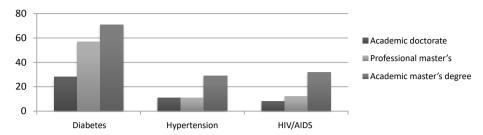
UFCE: Universidade Federal do Ceará; UFMG: Universidade Federal de Minas Gerais; UEMS: Universidade Estadual do Mato Grosso do Sul; UFOP: Universidade Federal de Ouro Preto.

Source: Elaborated by the authors.

It is important to highlight that, while the first three supervisors are linked to academic master's and doctoral programs, the other professors work with the theme of Healthcare Education in professional master's programs in Nursing, Collective Health, or Health Sciences.

The works identified by searching for the term "*Educação em Saúde*" in the period defined addressed various themes. The most frequent ones are presented in Graph 2.

The highest number of studies in the field of Healthcare Education are related to the issues diabetes (156), hypertension (51) and HIV/AIDS (42). Other themes explored — arboviruses, obesity, nutritional education, oral health, pregnancy, cancer and use of medication, for example — as processes of formulation of public policies for basic healthcare, knowledge or knowledge and perceptions about healthcare conditions, self-care, educational practices in school and non-school environments, initial and continuing education of professionals in healthcare and



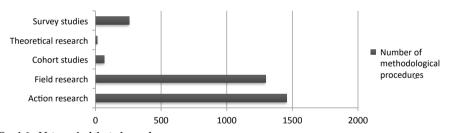
Graph 2 - Themes produced in "Educação em Saúde" [Education in Health] (2015-2019)

Source: Elaborated by the authors.

Academic doctorate, Professional master's, academic master's

education with the use of programs, software or applications that facilitate the appropriation of knowledge about health.

Most of these themes were conceived by integrating methodological procedures and using various research tools. Graph 3 presents the main procedures adopted by the researchers for the production of knowledge in Healthcare Education.



Graph 3 - Main methodological procedures.

Source: Elaborated by the authors.

Survey studies. Theoretical research. Cohort studies. Field research. Action-research. Number of methodological procedures.

It can be seen that action-research and field studies with the use of observation, questionnaires and individualized interviews, or in focus groups, were the procedures most adopted in the works, compared particularly with cohort studies and theoretical research of a historical, ethnographic, or philosophical character. This is largely due to the idea of perception of an element of reality in relation to health and the understanding of the construction and/or reorientation about self-care and institutional and educational care related to health, to favor the evaluation of programs and implementation of public policies, pedagogical practices and the elaboration of educational materials and courses of initial and continued professional education.

DISCUSSION

Based on the information and data collected in the CAPES database of dissertations and thesis, it is valid to emphasize the strong scientific contribution of this base to the establishment of concepts, policies and knowledge related to Healthcare Education. The database provides an overview of the configuration and development of the perspectives and the discussions about and approaches to the themes related to Healthcare Education in the graduate programs, raising reflections pertinent to the (re)dimensioning of the encounter between healthcare and education.

By addressing this theme, it is understood that its constitution is based on and for collective action, configuring itself not only as a historic product, but also — considering the complexity of the field — the expression of a "[...] constant tension between the traditional and the new [...]" (Marinho and Silva, 2017, p. 2, our translation). In this sense, it raises the multidimensionality assumed from the theoretical and practical aspects, encompassing concepts of the act of educating about and for the health-disease process, considering individuals and the collectivity, to maintain health or avoid and retard the presence of and complications from disease (Maciel, 2009; Salci *et al.*, 2013).

Beyond the instructional sense, related to the transmission of information about healthcare using educational technologies, according to Cheila Silva *et al.* (2010a), when the theme of Healthcare Education is placed on the agenda, an effort is made to conduct the educational act in a participatory and emancipatory manner, attending to the historical-cultural paradigm from the perspective of promotion of health. However, the studies in the CAPES database of dissertations and thesis reveal a "paradigmatic fluctuation" in this education, between traditional approaches and those with mechanisms for popular participation in healthcare that can be divided along three axes of analysis: "policies of/for healthcare", "professional education", and "educational practices per se".

Studies in the axis of "policies of/for healthcare" address modes of implementation and evaluation of policies of and for healthcare and epidemiological conditions, particularly the Health in School Program (PSE, in the Portuguese acronym) and the Family Healthcare Strategy (ESF, in the Portuguese acronym) as public policies to assist the population to access healthcare.

Despite addressing public policies and collegiate administration of educational practices in healthcare, it was noticeable that the model of attention to healthcare (considering its organization, processes and relations) found in the thesis and dissertations of this axis tends towards a social-political project for the reproduction of work in healthcare, analyzing epidemiological profiles and possibilities for educational actions for a transmitted "appropriation" of healthcare and of environments favorable to health. Thus, following the analyses of Parreira (2003), the academic productions configured the idea of "Educação e Saúde", in which education and healthcare are considered in their specificities and fields of knowledge and practices, associating the educational phenomenon to schools, and the healthcare to healthcare services, with this

being seen as a type of "provision of assistance" favorable to the modification of individual behaviors.

In the second axis, related to "professional education", there was an emphasis on the construction of professional competencies/abilities, with a focus on the curricular organization of undergraduate courses, particularly Nursing, Physiotherapy and Medicine. This was related to the epistemological concepts and curricular practices presented in the National Curriculum Guidelines for the courses in question, in the continuing education of healthcare professionals, in medical residencies, as models of action, and healthcare assistance, and in the initial education of teachers, with a reflection and perception of uses of healthcare in their pedagogical practice.

In their article "Formação de profissionais de saúde no Brasil: uma análise no período de 1991 a 2008" ["Education of healthcare professionals in Brazil: an analysis in the period from 1991 to 2008"], Haddad et al. (2010) mentioned the emergence of actions focused specifically on the education of human resources for healthcare policy as a central element in the implementation of national healthcare systems. These actions should be adopted as a government policy related to professional education and qualification, and are still necessary according to the results found in the CAPES database, given that workers in Healthcare and Education, who are guided by the precepts of Healthcare Education, should understand the constant changes in the social reality and how they are reflected in healthcare. The article proposes critical and reflexive pedagogical practices that problematize the situation and that understand health as a social construction established through inter-sectorial action and through the empowerment of the population (Freire, 1999; Haddad et al., 2010; Silva et al., 2010a; Rosito and Loterio, 2012; Salci et al., 2013).

Despite this social consideration of Healthcare Education, favored by the implantation of assistance models like the ESF, it was found that educational institutions still have mistaken conceptions of action-reflection-action (Freire, 1999) based on relations of verticality, in which health serves as a common instrumentality to traditional modalities of professional education and qualification. This indicates that the challenges are constant, considering that work in healthcare should be popular work in healthcare, in keeping with a committed pedagogical-political project focused on ethics, ideology, organization and technique in the field of healthcare (Brasil, 2007b).

The last axis, that of "educational practices per se", had the most thesis and dissertations, which involved themes ranging from active pedagogical and methodological practices to the uses of educational technologies in schools and healthcare institutions (mainly the Basic Healthcare Units — UBS, in the Portuguese acronym — [community-based public healthcare clinics] and the Centers for Psychosocial Attention — CAPS, in the Portuguese acronym —), and encompass the development of educational and instructional processes with special attention given to computer and mobile applications and informational materials.

In this axis, it is interesting to note the attribution of the terms "educational intervention", "orientation" and "educational action" as synonyms for practices in Healthcare Education. These terms often hide a disciplinary character in healthcare practices, reinforcing the treatment of illness and natural human processes (such

as pregnancy and breastfeeding) as cause and effect relations of a biological order (Silva et al., 2010b), in which thinking and acting are controlled by a perspective of a new "intervening awareness" — which is very common in sanitary education practices (Souza and Jacobina, 2009) —, in asymmetrical relations and with the vertical passage of information, indicating a possible and systematic dis-consideration for historic and sociocultural relations involved in the health-disease process of the community in question. Moreover, with the terms synonymous to Healthcare Education present in the academic studies, which lean towards a traditional assistance-based model, there is an indication of the presence of technical knowledge "in" healthcare. This is found even in the most commonly raised themes in the time period examined (HIV/AIDS, diabetes, arboviruses, hypertension, oral health, mental health, nutritional education and pregnancy/breastfeeding), as opposed to emphasizing an experiential relationship with healthcare, produced through autonomy and commitment to human dignity.

The indication for a popular and permanent education in healthcare involves overcoming the didactive nature of education "in" healthcare by means of a dialogical and horizontal relationship among the participating subjects (Maciel, 2009; Silva *et al.*, 2010a; Reis *et al.*, 2013). This concept is present in the thinking of Paulo Freire, who is the theoretician most cited in the thesis and dissertations that focus on this axis of educational practices.

According to Freirean thinking as applied to Healthcare Education, the act of educating about healthcare should be understood as a dialog and a space for critical and collective reflections (Freire, 1999). This would reveal that Reis *et al.* (2013) establish in their analyses about the historicity of this field of knowledge: the qualitative strengthening of the services offered, a democratization of knowledge, use of simplified technologies and popular participation in the definition of healthcare priorities and strategies.

By using the epistemological and pedagogical principles of Paulo Freire in Healthcare Education activities, the authors — despite the experiences of educational intervention/supervision — indicate that a dialogical nature, autonomy, and awareness are essential factors for developing a collective understanding about healthcare, regardless of the location where this educational process is established. Beyond a banking conception of education (Freire, 1987), there is a commitment to praxis in healthcare, an encounter between the collectivity and healthcare professions, in which is established awareness about healthcare as an end and the humanized educational care as a principle of professional action.

FINAL CONSIDERATIONS

This study presented a state of knowledge by working with a premise of methodological transparency and its problematics as theoretical research. In agreement with Alves-Mazzoti and Gewandsznajder (1999, p. 183, our translation), we understand the need for studies such as these to "[...] produce knowledge that can contribute to the theoretical-methodological development of the field and to change practices that have proved to be inadequate in the treatment of

social problems." In addition to issues of content, it is important to highlight that "[...] functioning as a stage for many transformations, schools should serve to propose changes in the form of thinking about and constructing health, working with the theme in an interdisciplinary manner, and by means of partnerships with other teams, abandoning the old educational paradigm focused only on the figure of the professor." (Paes and Paixão, 2016, p. 88, our translation). Thus, we discussed intersectoriality, that is, schools dialoging with other sectors to plan strategies, without simply treating teachers as being those solely responsible as sources of information.

The data collected allowed observing the high production in graduate programs in the Health Sciences, specifically in Nursing and Collective Health courses. A growth in the number of academic studies about the theme between the years 2016 and 2018 was also seen, which may reflect the public healthcare policies adopted by the Brazilian state related to the issue in question. A greater discussion of the issue was found at institutions in the Central and Southern regions of the country, which may indicate the relationship between discussions about Healthcare Education and social development.

In relation to the contents of the studies found in the survey of the database, the mobilization of knowledge and practices related to chronic diseases (diabetes, hypertension and HIV/AIDS) stood out, as well as a steering towards three analytical axes (politics of and for healthcare, professional education, and educational practices per se). This shows that, despite advances made in the discursive field and in the field of practices, it is still necessary to break the barriers of the traditional and biological model of Healthcare Education and implement Freirean principles of dialog, autonomy and awareness, to truly move from education "about" healthcare to a healthy education.

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