ARTICLE

Thematic representation of Collective Health information in the context of keywords

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ABSTRACT
Introduction: Given the number of studies that constitute a field of knowledge, the importance of the informational representation of its themes is indicated, and consequently, the dissemination of the knowledge produced. **Objectives**: To identify the keywords used in dissertations in collective health, to present the most used ones and to analyze their thematic content. **Methodology**: Bibliographic, document and descriptive research was used, of a quanti-qualitative nature, based on the theoretical and methodological contributions of thematic representation of information, to identify the keywords of ninety-one master's papers, approved by the Postgraduate Program in Collective Health at the Londrina State University from 2010 to 2020. **Results**: Among the most employed keywords - Primary Health Care (PHC), it is the most recurrent. **Conclusion**: By identifying and analyzing the keywords, the commitment of the collective health field is ratified, especially the Postgraduate Program in Collective Health at the Londrina State University, which prioritizes the promotion, prevention and protection of health with a view to the well-being of the population. The role of Information Science is highlighted, of studies related to the organization and representation of information, aiming at the recovery and socialization of scientific information.

KEYWORDS: Collective health. Information science. Thematic representation of information.

A representação temática da informação na Saúde Coletiva no contexto das palavras-chave

RESUMO
Introdução: Diante da quantidade de estudos que constituem um campo de conhecimento, indica-se a importância da representação informacional de suas temáticas e por conseguinte, a disseminação dos conhecimentos produzidos. **Objetivos**: Identificar as palavras-chave utilizadas em dissertações do campo da saúde coletiva, apresentar as mais empregadas e analisar o conteúdo temático que as constituem. **Metodologia**: Optou-se pela pesquisa bibliográfica, documental e descritiva, de natureza quantiqualitativa, fundamentada nos aportes teóricos e metodológicos da representação temática da informação, para identificar as palavras-chave dos noventa e um trabalhos de mestrado, aprovados pelo Programa de Pós-Graduação em Saúde Coletiva da Universidade Estadual de Londrina no período de 2010 a 2020. **Resultados**: Dentre as palavras-chave mais empregadas - Atenção Primária à Saúde (APS), trata-se da mais recorrente. **Conclusão**: Ao identificar e analisar as palavras-chave, ratifica-se o compromisso do campo da saúde coletiva, em especial do Programa de Pós-Graduação em Saúde Coletiva da Universidade Estadual de Londrina, que prioriza a promoção, a prevenção e a proteção da saúde com vistas ao bem-

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estar da população. Destaca-se, o papel da Ciência da Informação, dos estudos relacionados à organização e a representação da informação, com vistas a recuperação e a socialização da informação científica.

PALAVRAS-CHAVE: Saúde coletiva. Ciência da informação. Representação temática da informação.

JITA: BH. Information needs and information requirements analysis.

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1 INTRODUCTION

The scientific knowledge, increasingly, has provided expressive amounts and varieties of information, which require informational treatment so that there is the dissemination of new knowledge, thus establishing the "[...] natural routine of science itself" (CINTRA et al. 2002, p. 21). Among the various informative contexts, following Población and Noronha (2002, p. 98), it is observed that the post-graduation programs have become the generating pole of scientific production in Brazil. Thus, it is understood that these programs are rich environments of learning opportunities, of knowledge acquisition, drivers of the teaching and research process, considering its permanent social and collective dimension.

Wersig and Neveling (apud BELKIN; ROBERTSON, 1973) emphasize the social responsibility implicit in the transmission of knowledge when they highlight the contribution of Information Science (CI) to the organization and representation of information, by means of processes of documentary treatment, aimed at identifying what is essential, with a view to the dissemination and retrieval of information. Borba, Van der Laan and Chini (2012) clarify that the thematic treatment aims to establish the informational representation of the content of a document, in order to enable the retrieval and access to information. It is considered, in this sense, the abstracts, the keywords, informational syntheses that thematically represent the text that originated them.

Among these micro texts, the keywords enable and facilitate the identification of the content of a scientific paper, that is, the thematic representation of the information linked to the text, showing the concern to mediate and support those who need to appropriate a particular informational resource. The search for scientific papers, carried out by means of keywords, provides an opportunity to locate texts that are pertinent to the informational needs of researchers.

From this perspective, it is worth mentioning the role of graduate studies in Collective Health, training masters and doctors, enabling them not only to build knowledge, but also to present existing knowledge (LOYOLA, 2012). Seen as a field of knowledge production, as well as of practices, through its interdisciplinary character, the health-disease process is manifested and articulated in the population context. Given the scenario presented, and considering the relevance of Collective Health studies, it is understood that the issues addressed by the field need to be disseminated to society in general. In this sense, the question is: how is the thematic representation of the contents of dissertations, having as a representative element the keywords, assigned by the authors in their conclusion papers? In search of answers, we resorted to the precepts of organization and representation derived from Information Science.

In this direction, the article aims to identify the keywords used in dissertations in the field of collective health, present the most used ones and analyze the thematic content that constitute them. By analyzing the most used keywords, we support the premise that it will be possible to identify the most addressed issues in the research developed by the graduate program, presenting to scholars in the area not only information about the studies carried out, but also the need for research related to little studied themes.

From a methodological perspective, we opted for bibliographic, documentary and descriptive research, of a quanti-qualitative nature, based on the theoretical and methodological contributions of thematic representation of information, to identify the keywords of the ninety-one master's degree papers, approved by the Postgraduate Program in Collective Health at the Londrina State University from 2010 to 2020. It is important to clarify that this proposal originated in the context of the research project called Informational Metrepresentations in Information Science, of the Postgraduate Program in Information Science of the State

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University of Londrina (PPGCI UEL), locus of discussions and reflections on the thematic multiplicity of research in Collective Health and the need to organize them through their thematic representations, aiming at the recovery of these relevant informational resources.

2 THE FIELD OF COLLECTIVE HEALTH

Collective Health can be considered as "[...] a field of knowledge of interdisciplinary nature whose basic disciplines are epidemiology, health planning/management and social sciences in health". (PAIM; ALMEIDA FILHO, 2000, p.63). Thus, defined as a Brazilian invention, the term Collective Health is present in the academic and political agenda, it is about approaches to the relationships between:

> knowledge, practices, and rights concerning quality of life. Instead of the traditional dichotomies - public health/health care, curative medicine/preventive medicine, and even individual/society - a new understanding is sought in which the interdisciplinary perspective and the political debate around issues such as universality, equity, democracy, citizenship and, more recently, subjectivity emerge as major issues. (LIMA; SANTANA, 2006, p. 9).

Among the main facts that have occurred in health policy in Brazil since the 20th century, the Brazilian Sanitary Reform movement, in the 1970s, stands out. At that time, the expression Collective Health was used as a reference to the set of ideas related to pertinent and necessary changes and transformations in the health area. Changes that encompassed the system and the entire health sector, with the purpose of seeking the improvement of the population's living conditions. In this context, groups of physicians and other professionals concerned with public health developed theses that became part of the political discussions. The proposals of the Health Reform resulted in the universality of the right to health, made official by the 1988 Federal Constitution and the creation of the Unified Health System (SUS). (REFORMA..., 2020).

It is important to mention that the process of Brazilian Sanitary Reform had as its institutional landmark the 8th National Health Conference in 1986, a time when there was a major mobilization for the reform of the health system and demands of the sanitary movement were discussed and approved. In this scenario, it was established "to strengthen the public health sector, expand coverage to all citizens and integrate social security medicine to public health, thus constituting a single system" (PAIVA; TEIXEIRA, 2014, p. 25).

According to the guidelines that guided the process of Brazilian Health Reform, describes Teixeira (2009, p. 476), "The movement that drove the Brazilian Health Reform put as a project the counter-hegemonic construction of a new level of civilization, which implies a profound cultural, political and institutional change capable of enabling health as a public good". In this scenario, reaching higher levels of institutionality in the country, the Brazilian Association of Collective Health (ABRASCO) was created "as a form of organization of graduate programs in the field of public health, social medicine and collective health" (PAIVA; TEIXEIRA, 2014, p. 22).

Collective health emerged at a time of organization of the public health system, in order to expand it and extend it to the entire population of the country. The term "collective health" demonstrates the presence of the social sciences and the humanities, thus evoking health studies of a collectivity, "which constitutes and underpins the area. (LOYOLA, 2012, p. 9). As a Post-Graduation it can be seen that Collective Health, is established, according to Guimarães (2019, p.114), in a field of knowledge and practices that from its consistency and potency

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provoke changes in the plane of knowledge of the plurality of reformist voices. From this point of view, Guimarães (2019) observes that the problematization of the collective inserted in collective health is configured as a path to reflect on the sanitary movement in the current context.

2 1 Post-graduation in Public Health

The need for professional updating and training is a fact, especially in contemporary society in the second half of the 20th century and even more so in the 21st century. In this sense, professionals are seeking continued education to keep up with the evolution, both in their areas of knowledge and in related areas. In this sense, organizations have been concerned with offering Stricto sensu qualification opportunities. In this context, postgraduate courses in collective health stand out.

The post-graduation, Stricto sensu, is considered a successful program in Brazilian education. "Since its inception, it was formulated with the specific purpose of contributing to national development through the training of teachers and researchers with competencies for research". (NOVAES, et al. 2018, p. 2019).

This idea is reflected in scientific works, especially in dissertation texts, which encompass significant academic production, anchored in reality, with transformative purpose. In this sense, the involvement of researchers in the field of Collective Health, considering the richness of its interdisciplinary character, enables scholars to face the most complex objects of investigation in health, transforming knowledge into action (BARRETO, 2003). Collective Health, through its thematic contents and its resulting proposals for action, contributes to the study of the social process known as health-disease, in the collective scope. Collective Health, however, goes beyond the health-disease process. It also refers to administrative and logistical issues, to the need to identify preventive health actions for the population.

According to this perspective, it is understood that the products generated by Postgraduate Programs in Collective Health deserve appropriate informational treatment in order to fulfill their functions as generators of new knowledge and especially with proposals from the field, to strengthen the Unified Health System (SUS), with a view to improving Brazilian public health.

It is recognized that the registration of themes and subjects generated by scientific works is the way in which higher education institutions, seen as systematized centers of knowledge, make themselves present in the know-how and power of science. In this sense, Information Science is used, because the information coming from scientific research guides decision making, not only in the administrative scenario, but especially in the service to the population. Therefore, it is clear that this information must be organized so that it can be retrieved by society in general, when necessary.

3 ORGANIZATION AND REPRESENTATION OF INFORMATION

The Information Science is constituted as an area that goes through different fields of knowledge and that has among its characteristics the role of investigating the properties and behavior of information, specifically the means for its organization (ARAÚJO JÚNIOR, 2007). The important contribution of the theoretical and methodological contributions of the organization and representation of information is emphasized, which constitute important axes of the area. In this way, organizing and representing information, so that it can be recovered, accessed and appropriated, leads to an analysis of interdisciplinary fields, in which Information Science is consolidated as the main representative. The need to produce information with the

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purpose of identifying existing records in the various fields of knowledge is thus evident. The knowledge produced in the most diverse areas reveals the need to improve proposals that contribute to the organization of information. Thus, the organization of information has become an important field of study for Information Science. Victorino and Bräscher (2009) recall that information can be recorded in various types of documents (books, reports, photographs, among others). These documents and their contents are called informational objects. According to Victorino and Bräscher (2009, p. 2), "[...] the goal of information organization is to support the flow of treatment and retrieval of structured, semi-structured, and unstructured informational objects in organizations." Given this, Bräscher and Café (2008, p. 2) clarify that, "[...] generally, when one organizes information, one has in view the end user of an information system, who resorts to the system to satisfy a specific need for information."

Information organization, for Café and Sales (2010), "[...] is a process of arranging traditional or electronic collections carried out through the physical and content (subject) description of its informational objects." The information organization process aims to enable access to the knowledge comprised in the information. By focusing on the organization, representation and preservation of recorded information, Information Science has the scope "[...] to organize information in order to better understand it and, in this way, retrieve it more efficiently" (CAFÉ, SALES, 2010, p. 126).

For Novellino (1996, p. 38), the study of information representation from the perspective of its content is characterized as "[...] the replacement of a long and complex linguistic entity - the text of the document - by its abbreviated description." According to the author, the use of such summarization, or substitution, is not only a consequence of restrictions regarding the decrease in the volume of material to be stored and researched, but, above all, its function is in demonstrating, in a few words, the essence of the document. In this line of reasoning, to represent, from Peirce's (2008, p. 61) perspective, is "To be in place of, that is, to be in such a relation to, another that, for certain purposes, it is considered by some mind as if it were that other." Thus, it is considered, that the great differential of the representation of information, besides producing several ways of meaning and re-signifying the document, "the fact of being able to act in different domains, performing the different investigations from the prism of the representation of information" (ALBUQUERQUE; GAUDÊNCIO; SANTOS, 2019, p. 23).

In the field of Information Science, the expression information processing can encompass processes that involve the physical and thematic descriptions of documents in information units or information retrieval systems, as well as the development of instruments used in these descriptions and also the implementation of physical structures for the storage of information (DIAS; NAVES, 2013).

According to this line of reasoning, the process of information processing can be divided into: descriptive representation, which aims to identify extrinsic aspects of a document, such as the author and the title and components of the same nature and thematic representation, which aims to highlight the subject of the document. Thematic representation is seen as the basis for the organization of information and knowledge; these are techniques for analyzing a document, identifying the themes it deals with. Thematic representation has the function of extracting or associating subjects that best represent the contents and the themes recorded in the documents. The thematic representation of information is done by means of keywords, descriptors, terms, abstracts, among others. (RABELO; PINTO, 2019).

In the words of Dias and Naves (2013, p. 7), the thematic representation, [...] "aims to characterize the document from the point of view of its content". As a result, according to the authors, in the context of Information Science, thematic representation is characterized through procedures also called subject analysis, thematic analysis, document analysis, information

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analysis, among other designations, with the purpose of elaborating informational representative products, such as bibliographic and cataloging records, abstracts, keywords, descriptors, among others.

4 THE KEYWORD AS A REPRESENTATIVE ELEMENT

The insertion of keywords in scientific papers, stems from its importance as a form of description or presentation, synthetically, of the information presented there, becoming then, as a preponderant factor regarding the recovery of these informational resources. In order to facilitate and categorize the content, within a range of subjects, Borba, Van der Laan and Chini (2012, p. 27) clarify that "keyword is characterized by being assigned by the author [...], with the aim of synthetically representing the thematic content of the text."

In this sense, Fujita (2004, p. 258) notes that for keyword determination one must have on the part of the author "a vision about the text and the organization of its content in order to represent it according to its main subject". According to the author, (2004, p. 257), the meaning of a keyword must be closely linked to the text's theme, "as if we could encapsulate all the content of a text in a keyword. Thus, determining keywords so as to represent the content of a text for future retrieval is certainly an operation that involves knowledge about the text's subject (FUJITA 2004, p. 257).

Borba, Van der Laan and Chini (2012, p. 27), note that the "keyword has the characteristic of being freely attributed by the author of a text, thus aiming at the representation of the informational content present in the document he elaborated". In this line of thought, they reiterate that the "[...] keyword should be a term from the area of knowledge that the author deals with. Therefore, it would be a unit of both representation and retrieval of information." Among the forms of information representation, the keyword is the one that presents the document in a more condensed way, because it strives to summarize, as much as possible, its content. It is understood that this way of representing information makes it possible to decide whether or not to access the complete document.

As for the purpose, role and use of the keyword, Miguéis et al. (2013, p. 115) highlights that "it enhances access to the content of the documents, beyond the information that is represented by the title and abstract; it translates the authors' thoughts, and keeps in touch with the reality of everyday practice, following the scientific and technological evolution, which is reflected by the documents." According to Hartley and Kostoff (2003), the earliest record of the use of keywords was found in the Journal of Applied Behavior Analysis in 1975, but it is possible that they were already being used by other journals prior to that date. At first, the journal used the term "descriptors", and over time began to use the term "keywords".

According to Gil-Leiva and Alonso-Arroyo (2005, p. 63), "keywords are words or phrases that provide thematic or technical information from documents". In this direction, Fujita (2004, p. 258) states that "The keyword is a representation of the meaningful content of the text and is also used to represent an information need in the search strategy." Hartley and Kostoff (2003), the indicate the main concepts and domains of interest in an article and therefore, along with the abstract, author's name, and title, are indispensable in aiding electronic information retrieval in any reputable database. Barreto (2008, p. 10), considers keywords as content indicators.

In this direction, as stated by Rodrigues et al. (2017, p. 1065), "Keywords are of great importance in the context of the organization, representation, and retrieval of information and knowledge, but this ends up acquiring a secondary role in scientific production." Hartley and Kostoff (2003, p. 433, our translation) "further highlight the importance of keywords in the

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evaluation of articles and journals, with respect to their representativeness in the scientific community."

The use of delimiters of terms becomes very important when choosing keywords. In each era, region, culture, or area of knowledge there may be different terms for the same meaning, or even different meanings for the same term. Although many databases have dynamic search engines, the excessive use of different terms for the same subject can make it difficult to find relevant documents, resulting in very voluminous or reduced results.

Although they are graphically and semantically distinct, the terms keywords and descriptors are often considered interchangeable. However, it is worth noting that although both terms are linked to the idea of representing, of identifying the most relevant information, keywords are derived from the author's natural language, taken from the text itself, while descriptors are terms previously selected and validated by experts in the field.

5 METHODOLOGICAL PROCEDURES

The research universe consisted of 91 scientific papers, related to dissertations defended and approved in the period from 2010 to 2020 in the PPGSC/UEL. It is, as previously mentioned, a bibliographic and documentary research, descriptive, as well as a quanti-qualitative study. It is understood that for the development of the qualitative study, the view given to the research problem is embraced. Some studies require a multiple approach to be better investigated and analyzed. In this sense, it is understood of a research that seeks familiarity with the problem and thus, make it explicit before the records and analysis, allowing the description of its characteristics (GIL, 2017).

Considering the constitution of the research corpus, it is important to mention that the PPGSC/UEL started its activities with the master's course in 1990, and since 2009 the course at the doctoral level was inserted in the Program. Over the years, the PPGSC/UEL has enabled, in addition to the training of human resources, the mutual collaboration between teachers/supervisors and students in order to develop projects and research that contribute to improving the quality of life of people and community and, therefore, with the diversity of thematic approaches that contribute to the field of collective health. Experiences with health services organization, through health professionals and teachers, have influenced changes in the local and state health organization and practice. Along this line of reasoning, the scenarios focused on the integration of teaching, service, and community have been maintained as a work axis, with stimulus to research that contributes to the improvement of health services management and the quality of life and health of the population. It is understood, that the scientific products are focused on contributing to the development of SUS and directing improvements to the public health process in the country.

Therefore, to identify the keywords used in dissertations from PPGSC/UEL and present the most addressed in the investigated period, as well as analyze the thematic content that constitute them from the perspective of information representation, the article went through the following steps:

1) Definition of the period to be analyzed, the approved dissertations were identified, thus establishing the corpus of the research;

2) Access to the 91 dissertation works, located in the PPGSC/UEL website, which makes available not only the titles of the scientific works (dissertations and theses), but also their online versions, with the year the student entered, advisor and date of defense. The

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dissertations are also available in the Digital Library of the State University of Londrina (BD/UEL).

      3) Extract from the 91 dissertation papers, the titles (as subsidies for the analysis of the results) and the keywords;

      4) Collecting the keywords of the respective papers - a total of 394 keywords were identified;

      5) Standardization and grouping of the 394 keywords by similarity and semantics - result, a total of 241 keywords;

      6) Structuring, categorizing and quantifying the keywords;

      7) Identification of the most recurrent keywords and analysis of the thematic content that constitute them in the investigated Post-Graduation Program of the Collective Health field;

      8) Contributions of IC, as thematic representation with a view to information transfer, of formalized languages, which facilitate communication and information retrieval.

      Regarding the methodological approach, the analysis and discussion of the research results are presented below. The objective of this research was to identify the keywords used in dissertations in the field of collective health, to present the most used ones and to analyze their thematic content that constitute them.

6 ANALYSIS AND DISCUSSION OF THE RESULTS

      After collecting a total of 394 keywords, the terms were standardized and grouped, resulting in a total of 241 keywords. The standardization and grouping was necessary because some subjects were described with different spellings. Therefore, Chart 1 shows the results of the grouping, where the keywords and their recurrence are found.

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Chart 1.   Keyword recurrence

KEYWORDS	FREQUENCY
Primary health care.	15
Teachers.	10
Diabetes Mellitus; Unified Health System.	7
Adults; Health Care; Cartography; Eating Behavior; Health Management; Regionalization; Child Health; Workers' Health.	5
Health evaluation; Family Health Strategy; Risk factors; Governance; Health personnel; Prevalence; Oral Health.	4
Hosting; Cardiovascular Diseases; Chronic Pain; Continuing Education; Patient Care Team; Longitudinal Studies; Hypertension; Elderly; Integrality in Health; Health Workforce; Obesity; Qualitative Research.	3
Absenteeism; Traffic Accidents; Health Services Administration; Body Weight Changes; Matrix Support; Integral Health Care; Home Care; Secondary Health Care; Self-image; Working Conditions; Health Consortia; Diet; Pain; Musculoskeletal Pain; Health Education; Physical Education and Training; Medication-Related Side Effects and Adverse Reactions Primary and Secondary Education; Pre-Diabetic Status; Students; Cross-Sectional Studies; Federalism; Hospitalization; Incidence; Basic Health Indicators; Monitoring; Infant Mortality; Periodontitis; Health Policy; Community Networks; Health; Patient Safety; Blood Safety; Health Services; Emergency Medical Services; Information Systems; Sleep; Work; Transportation; Drug Use; Violence.	2

Marijuana Abuse; Access to Health Services; Accidents; Accidents at Work; Actigraphy; Medication Adherence; Hospital Administration; Patient Admission; Adolescent; AIDS; Breastfeeding; Literacy; Cholinergic Antagonists; Anthropometry; Outpatient Care; Dental Care; Association; Health Care; Motor Activity; Activities of Daily Living; Personal Autonomy; Barriers; In-Service Training Professional Training; Work Load; Marriage; External Causes; Centers for Dental Specialties; Abdominal Circumference; International Classification of Diseases; Health Related Behaviors; Conscience; Growth; Prenatal Care; Organizational Culture; Deciduous Tooth; Depression; Dermatomycoses; Psychological Detachment; Health Situation Diagnosis; Right to Health; Disparities in Health Levels; Communicable Diseases; Emerging Communicable Diseases; Education; Higher Education; Efficiency; Nursing; Emergency Nursing; Teaching; Epidemiology; Nursing Staff; Ergology; Nutritional Status; Lifestyle; Healthy Lifestyle; Stress; Psychological Stress; Cohort studies; Cross-sectional studies; Exposure; Pharmacoepidemiology; Phenomenology; Fruits; Pregnant Women; Security Management; Group with ancestors from the African continent; Risk groups; Population groups; Habits; Teaching hospitals; Body image; Body mass index; South American Indians; HIV infections; Long-term care facilities for the elderly; Academic institutions; Beck Inventory II; Health literacy; Health literacy; Malocclusion; Manganese; Biocompatible materials; Motherhood; Maurice Merleau-Ponty; Essential Drugs and Technologies in Health; Risk assessment; Emergency Medicine; Preventive Medicine; Micro politics; Human Migration; Public Ministry; Morbidity; Motorcycles; Change in marital status; Women; Health Services Needs and Demands; Newest Vital Sign; NVS; Abdominal Obesity; Organization and Administration; Diabetic Foot; Perception; Weight Perception; Postpartum Period; Middle-aged person; Person in situation of street; Disabled people; Health Planning; Policy; Points of Care; Population; Posture; Pleasure; Social Security; Prisoners; Work Process; Nursing Professionals; Health Promotion; Transfusion Reaction; Re-adaptation to Employment; Paranaense Mother Network; Regulation and Supervision in Health; Public-Private Relationship; Inter professional Relationships; Religion; Test Reproducibility; Contractual Responsibility; Diabetic Retinopathy; Salaries and Benefits; Blood; Job Satisfaction; Family Health; Adult Health; Student Health; Maternal and Child Health; Mental Health; Public Health; Disability Insurance; Hemotherapy Service; Emergency Hospital Service; Home Care Services; Oral Health Services; Maternal and Child Health Services; Mental Health Services; Health Services; Preventive Health Services; Sex; Health Systems Overweight; Disease outbreaks; Television; Trends; Therapeutics; Blood transfusion; Psychiatric disorders; Alcohol use disorders; Cocaine use disorders; Substance use disorders; Pharmacological treatment; Screening; Tuberculosis; Emergency care unit; Universalization of health care; University; Vegetables; Public health surveillance; Influenza A virus H1N1 subtype.	1

Source: Prepared by the authors.

Considering the period analyzed and the methods used to obtain the result, it was identified as elements of greater representativeness, among the themes, the keywords:
1) Primary Health Care (PHC);
2) Teachers
3) Diabetes Mellitus;
4) Unified Health System.

Then, the result of the analysis of the most used keywords will be presented. Therefore, it is understood that these are themes that represent the health information of the

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PPGSC/UEL, considering the 91 dissertations developed and approved by the Program within the analyzed period.

1) Primary health care: Regarding the most recurrent theme in the study in question, Primary Health Care (PHC), constitutes, "[...] as a filter capable of organizing the flow of services in health networks, from the simplest to the most complex." (ATTENTION..., 2020). Therefore, according to the Ministry of Health (MH), PHC is the first level of health care and is characterized by a set of health actions in the individual and collective context, which aims to develop a comprehensive care that positively impacts the health situation of communities, covering the promotion and protection of health, prevention of diseases, diagnosis, treatment, rehabilitation, harm reduction and health maintenance with the purpose of developing a comprehensive care that positively impacts the health situation of communities. (Brazil, 2020a). There are several strategies related to PHC in Brazil: services such as consultations, exams, vaccines, among others for communities/users, through the network of health services. In addition to services, support services to managers in decision making, with the aim of directing (to know) the population of the actions of PHC, among other programs, actions and strategies in the government.

Among the analyzed works, the themes developed with the thematic focus PHC, are the dissertations with the titles: "Risk of ulceration on feet of diabetes mellitus patients in Londrina, Paraná: characterization of care in primary care, prevalence and associated factors" (BORTOLETTO, 2010). "Anthropometric characteristics of children aged 6 to 23 months and factors associated with nutritional deviations" (SILVA, 2012); "Evaluation of the attention to people with hypertension and or diabetes in the municipality of Cambé - PR. 2014" (RADIGONDA, 2014); "Territorialization and Planning in a Family Health Unit."(MORGADO, 2017); Patient safety culture in primary health care, Londrina, Paraná (MACEDO, 2018). Expanded Nuclei of Family Health and Primary Care and Collaborative Practices for comprehensive care (MAZZA, 2020).

In this context, it was noticed that among the identified studies, themes related to issues inherent to Diabetes mellitus were developed, such as diagnosis and treatment, use of medications, risk factors, associated diseases, and especially the consequences of the disease. Themes about motorcycle accidents, nutrition, and managerial practices of primary health care were also addressed. It was also observed that PHC is present almost constantly in the papers, although the specific term was not always used in the keywords.

The PHC is known as "the 'gateway' to users in health systems, because it aims to provide guidance on disease prevention, solve the possible cases of injury and direct the most serious cases to higher levels of care in complexity. (ATENÇÃO..., 2020).   In this context, the principles of SUS, added to PHC, described by the Ministry of Health, are highlighted as follows Universalization: health is a citizenship right of all people; Equity: the goal is to reduce inequalities; Integrality: considers people as a whole, in meeting the health needs and quality of life of individuals. (BRASIL, 2020b).

Based on Werneck (2020), it is understood that the approaches of Collective Health and more specifically of PHC, contribute to changes, new opportunities and research and adjustments to graduate courses, with perspectives in the field of public health emergencies, more critically evaluating the impact and population interventions.

2) Diabetes Mellitus: As seen in the previous topic, in the analyzed papers there was a great relation between the keywords diabetes and PHC. Other themes were also addressed, such as patient care; associated risk factors; symptoms for care and prevention; the relationship with other diseases, such as vascular diseases; the use of medications and foot ulceration; and

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nutrition-related factors. In this context, works were developed with the following themes: Diabetic retinopathy in individuals with diabetes and pre-diabetes in the municipality of Cambé-PR. (OLIVEIRA, 2016); Risk factors for the incidence of diabetes mellitus and pre-diabetes in individuals aged 40 years or older: a cross-sectional study. (ADATIHARA, 2018).

Diabetes Mellitus, is considered a public health problem worldwide. It is one of the chronic diseases with the greatest impact on health care spending, because when poorly controlled, it brings serious macro and microvascular complications, which burden health care services. Data from the WHO have pointed to a large increase in the prevalence of the disease in the world scenario. Studies reveal the growth of the disease in developed and developing countries, a fact that occurs due to the aging population and sedentary lifestyle habits. In this context, it is important to highlight and alert that Brazil appears as one of the countries with the highest prevalence of the disease. Risk factors such as eating habits and lifestyle are considered to be associated with the prevalence of diabetes in the population.

3) Teachers: The keyword teachers is identified among the most recurrent ones. Considering that issues related to the physical and psychological health of teachers and approaches involving public health were studied mainly. Other themes also involved teachers' nutritional problems, the training process, teachers' professional satisfaction, and the manifestations of school violence against teachers, as well as the factors associated with this scenario.

It is noteworthy in the period analyzed, pertinent to the keyword "Teachers", that the papers are related to a research project developed by the Post-Graduation Program in Collective Health of the State University of Londrina (UEL) - Project for Monitoring the Lifestyle, Health and Work of Educators, entitled "Health, lifestyle and work of teachers in the State Network of Londrina" (PRO-Master)[1] , which aimed to analyze the relations of the state of health and lifestyle of teachers in the State Educational Network and relate them to aspects of the work process. The teaching work process can be marked by an expressive workload in the classroom, excessive bureaucratic tasks, lack of autonomy and infrastructure in the school environment, besides the frequent conflicting relationships with students and their families. Unfortunately, these working conditions have implications on the physical and mental health of teachers and, consequently, negatively interfere with their professional fulfillment and ability to remain active and perform at the same level throughout their careers. Therefore, the PRO-Mestre proposes a comprehensive analysis of the various factors that may explain how and with what intensity certain health problems compromise the ability to work and job satisfaction in teachers.

In the period in which the project was developed, it stands out that among the research topics are the titles of the dissertations: "School violence against teachers in the Londrina State Education Network: characterization and associated factors." (NESELLO, 2014); "Eating behaviors and associated factors in teachers of the State Educational Network of Londrina-PR." (DIAS, 2014); Job satisfaction and absenteeism among teachers of the state basic education network of Londrina. (LEVORATO, 2016); Pain in basic education teachers: association with physical activity and time watching television. (SANTOS, 2020).

4) Unified Health System: The Brazilian Unified Health System (SUS) is one of the largest in the world with universal access to health services and actions. It is assured in the Brazilian Constitution as a condition of citizenship, fruit of the Sanitary Reform Movement.

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[1] Available at: http://www.uel.br/pos/saudecoletiva/promestre/inf_bas.php .

The SUS distinguishes the social development of Brazil today and dignifies all Brazilians. (PAHO, 2018, p.4).

Among the themes developed is cited: Acting of the Londrina State Public Prosecutor's Office in the area of public health: analysis of demands and activities (TAVARES, 2010), health is considered as a right of all and its actions and services are characterized as public relevance, the importance of the Public Prosecutor's Office with the Unified Health System is highlighted, seeking actions that target the right to health; Non-adherence to continuous drug treatment and associated factors: population-based study. (REMONDI, 2012); Governance of Actions and Services of Medium Complexity in a Health Region (FERRAZ, 2018); SUS for all, for poor or for nobody? The view of Physical Education students from three public universities in Paraná (PIMENTEL, 2020).

From the analyses presented, it is understood that the field of Collective Health involves a wide range of thematic possibilities in favor of health, which include, in addition to debates, the production of scientific knowledge in the social and collective spheres. Among the themes identified are issues related to the management of services, the performance of health professionals, the accessibility of health services by individuals who need them, the assistance teams, and the medicines made available to the population. In this sense, considering the context of the contributions to Brazilian public health from the Brazilian Sanitary Reform, the process of implantation and implementation of the SUS - which aims to ensure the rights of Brazilian citizens to health, social security, and social assistance - is evident.

Thus, the most representative keywords in public health were analyzed and contextualized, specifically considering the PPGSC/UEL. It is important to mention that the other keywords identified, which were not explored in this article, are important representative approaches, since they reproduce the themes developed by the field and reflect on contributions to the health-related demands of the Brazilian population. It is also understood that, among the countless scientific researches carried out in the field of Collective Health, the theory-practice relationship of the field is ratified. That being said, it is evident that Collective Health is concerned with public health - the health of individuals, ethnic groups, social classes, and populations. In this sense, it is believed that the interdisciplinary nature of the field has enabled relevant innovations, facing the new health challenges in the country. It is noteworthy that graduate research in Collective Health, through its various approaches, can guide public policies and various social demands.

| **13**

The importance of the organization and representation of information is emphasized, with respect to the assignment of keywords in scientific research. In this context, it is reinforced the premise that among the forms of information representation, the keyword represents a document in a condensed way and presents itself in a fruitful way representative elements of the content of the scientific work developed, that is, a way to communicate the subject of the document. In view of the above, it is understood that to value the representation of information, the communicational factor, means to guarantee its various facets in the relationship with the informational record. (ALBUQUERQUE; GAUDÊNCIO; SANTOS, 2019). In line with Novellino (1998, p. 138), it is emphasized that "the action of information transfer depends on formalized languages that facilitate communication between producers, organizers and users of information".

It is worth pointing out that, as a contribution of Information Science, considering the axis of information representation, keywords are tools that help in the reader's decision making process, with regard to access to the text in its entirety. Therefore, paraphrasing Garcia, Gattaz and Gattaz (2019), regarding the benefits achieved through visibility, appreciation and legitimization of scientific works, the recognition factors of a research, the role of keywords summarizing the theme and the main ideas of a scientific document stands out.

These terms are used by researchers and scholars to identify the semantic content of a given subject, reflecting the thinking of the authors in the most diverse scientific papers, as well as representing the title, the abstract, and the content of the document, that is, the theme that is treated in the document. For this search to be successful, these documents must be organized. In this sense, it is important to mention that the organization of information takes place through its representation, as well as through the cognitive process that makes it possible for a document to be described, identified, individualized, and systematically organized in a collection, be it in physical or virtual media.

It is well known the importance of keywords in the representation of information, as a factor of identification, communication, transmission and the understanding of information, since it enables the interaction between document and user and, above all, when in the thematic representation that makes the process of information retrieval possible and understandable, in a precise and pertinent way.

Along this line of reasoning, information is essential to the accomplishment of any task, is present in all human activities and, consequently, should be socialized:

> Thus, the focus becomes the search for methodologies, instruments and strategies that enable the stages of identification, access, retrieval and dissemination of information to form, together, a space of transformation, recreation and/or creation of new information. This theoretical approach has been built within an emerging specialty of Information Science, called "Socialization of Information". Here, once again, the path to be followed asks for participation and partnership among the actors, among producers, intermediaries and users of information, especially at the limits where spaces are differentiated, at the border that separates scientific evidence...[...]. (GUIMARÃES, 2010, p. 56).

| **14**

Paraphrasing Gomes (2018), collective health, as a scientific field arising from a social movement for its understanding in terms of health conditions and needs, is committed to the study of these conditions as public policy proposals, as well as the dissemination in society of knowledge that enables changing their health conditions. In this sense, the partnership between collective health and the field of Information Science lies in the generation of services and products that can help obtain information for analysis and study purposes.

Taking advantage of the concepts that sustain the keywords used, it is possible to verify that the field of Collective Health prioritizes the promotion, prevention and protection of health, from the perspective of administration, management and planning of policies, services and programs, and articulates the field with knowledge and practices in different spheres: sociocultural, political, educational, environmental, organizational, economic and biological, and especially informational, incorporating innovative proposals in the national context.

7 FINAL CONSIDERATIONS

Collective Health is a scientific field that produces knowledge about the health object, aiming at health promotion and prevention in a collective context. In this sense, scientific research on epidemiological, socioeconomic, environmental, demographic, and cultural issues is included.

Among the approaches contemplated by the field of Collective Health, especially by the PPGSC at UEL, it was observed the diversity of subjects researched, the diversity of subjects researched in view of SUS, among other themes found in scientific works, inserted in the Brazilian context. However, it was found that some themes were not identified among the scientific products. Such as: the social inclusion of people with disabilities, and their needs for

oral health care, health problems related to diabetes and cardiovascular diseases, among other aspects pertinent to the needs and accessibility of health information for people with disabilities.

Through studies in the field of Information Science, specifically, the thematic representation of information, the dissertations' keywords were identified and, especially, the most recurrent keywords. It is emphasized that the studies involving the themes of Collective Health and Public Health should not be exhausted. In this sense, the importance and need of science for society is ratified from the viewpoints of several areas of knowledge, which were contemplated from the titles of some dissertations.

The use of language, the use of delimiters of terms becomes an element of significant importance and the choice of keywords must be presented in an understandable way and with, if possible, the proper connection of the scientific product developed. The keywords are derived from the author's natural language, taken from the text itself, while the descriptors are terms previously selected and validated by experts in the field. However, it should be noted that both terms are linked to the idea of representing, of identifying the most relevant information in a document.

Information Science, as an applied social science, conducts studies in various areas of knowledge. The field of Collective Health enables Information Science to identify studies related to Brazilian public health, developed by a public teaching institution, in the Post-Graduation scope. Thus, without exhausting other research proposals, this article highlights the relevant role of thematic representation, with a view to the recovery and socialization of scientific information and, in particular, of the researched area.

CRediT

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