

# Training of Health Professionals with an emphasis on Primary Health Care (PHC) in different countries: similarities and differences

Formação de Profissionais de Saúde com ênfase na Atenção Primária à Saúde (APS) em diferentes países: semelhanças e diferenças

Capacitación de profesionales de la salud con énfasis en atención primaria de salud (APS) en diferentes países: similitudes y diferencias

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**ABSTRACT: Objective:** To analyze training models for health professionals in different countries, with an emphasis on Primary Health Care, observing possible similarities and differences; from scientific evidence from 2009 to 2019. **Material and methods:** Bibliographic review (Scoping Review). Studies identified in the PubMed databases; VHL; ProQuest and EMBASE. As search strategy, the descriptors and their combinations were adopted: Health Workforce, Aptitude,

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Professional Competence, Models Educational, Health Human Resource Training. Articles published between 2009 and 2019, on health education, Portuguese, English, French and Spanish were included; 2,616 articles were identified. Excluding duplicate articles, 2,042 were obtained. Through the other exclusion criteria: absence of abstracts, articles not related to training in the context of PHC; 369 articles were registered. After reading the titles and abstracts, 51 articles were obtained. Through full reading, 28 articles resulted. This study represents a section of the literature review, where we selected 10 articles present in PubMed and VHL. Through content analysis in the thematic modality, categories of analysis discussed in this study were constructed. **Results:** The theme “Training Professionals for Primary Health Care and Community Health” was identified, classifying two core meanings: “Skills, attitudes, skills and knowledge in the training of health professionals;” and “Interprofessional Health Education and Learning.” **Conclusion:** Emphasis on the development of skills and evidence of Interprofessional Education in training for primary care and community health; valuing specific skills; common and collaborative, for teamwork.

**Keywords:** Health; Formation; Primary Attention.

**RESUMO: Objetivo:** Analisar modelos de formação de profissionais de saúde em diferentes países, com ênfase na Atenção Primária à Saúde, observando possíveis semelhanças e diferenças existentes; a partir de evidências científicas no período de 2009 a 2019. **Material e métodos:** Revisão bibliográfica (*Scoping Review*). Estudos identificados nas bases de dados PubMed; BVS; ProQuest e EMBASE. Como estratégia de busca adotou-se os descritores e suas combinações: Health Workforce, Aptitude, Professional Competence, Models Educational, Health Human Resource Training. Foram incluídos artigos publicados entre 2009 a 2019, sobre a formação em saúde, idiomas português, inglês, francês e espanhol; identificando-se 2.616 artigos. Excluindo artigos duplicados obteve-se 2.042. Mediante os demais critérios de exclusão: ausência de resumos, artigos não relacionados à formação no contexto da APS; teve-se o registro de 369 artigos. Após leitura dos títulos e resumos obteve-se 51 artigos. Através da leitura na íntegra, resultaram 28 artigos. Este estudo representa um recorte da revisão da literatura, onde selecionamos 10 artigos presentes no PubMed e BVS. Mediante análise de conteúdo na modalidade temática foram construídas categorias de análises discutidas neste estudo. **Resultados:** Identificou-se como tema “*Formação de Profissionais para a Atenção Primária à Saúde e Saúde Comunitária*”, classificando-se, dois núcleos de sentidos: “*Competências, atitudes, habilidades e conhecimentos na formação dos profissionais de saúde;*” e “*Educação e Aprendizagem Interprofissional em Saúde.*” **Conclusão:** Ênfase no desenvolvimento de competências e evidências da Educação Interprofissional na formação para atenção primária e saúde comunitária; valorizando as competências específicas; comuns e colaborativas, para o trabalho em equipe.

**Palavras-chave:** Saúde; Formação; Atenção Primária.

**RESUMEN: Objetivo:** analizar modelos de capacitación para profesionales de la salud en diferentes países, con énfasis en Atención Primaria de Salud, observando posibles similitudes y diferencias; de evidencia científica de 2009 a 2019. **Material y métodos:** revisión bibliográfica (revisión de alcance). Estudios identificados en las bases de datos PubMed; BVS; ProQuest y EMBASE. Como estrategia de búsqueda, se adoptaron los descriptores y sus combinaciones: Health Workforce, Aptitude, Professional Competence, Models Educational, Health Human Resource Training. Se incluyeron artículos publicados entre 2009 y 2019 sobre educación para la salud, portugués, inglés, francés y español; Se identificaron 2.616 artículos. Excluyendo artículos duplicados, se obtuvieron 2,042. A través de los otros criterios de exclusión: ausencia de resúmenes,

artículos no relacionados con la capacitación en el contexto de la APS; Se registraron 369 artículos. Después de leer los títulos y resúmenes, se obtuvieron 51 artículos. A través de la lectura completa, resultaron 28 artículos. Este estudio representa una sección de la revisión de la literatura, donde seleccionamos 10 artículos presentes en PubMed y VHL. A través del análisis de contenido en la modalidad temática, se construyeron las categorías de análisis discutidas en este estudio. **Resultados:** Se identificó el tema “Capacitación de profesionales para atención primaria de salud y salud comunitaria”, clasificando dos significados centrales: “Habilidades, actitudes, habilidades y conocimientos en la capacitación de profesionales de la salud” y “Educación y aprendizaje sanitario interprofesional”. **Conclusión:** Énfasis en el desarrollo de habilidades y evidencia de la Educación Interprofesional en capacitación para atención primaria y salud comunitaria; valorando habilidades específicas; común y colaborativo, para trabajo en equipo. **Palabras clave:** Salud; Formación; Atención Primaria.

## INTRODUCTION

Primary Health Care (PHC) is a strategy for organization and reorganization of health systems; and represents the first level of care; it is also a model for changing the clinical assistance practices of health professionals; orienting themselves through their essential attributes: care upon first contact, longitudinality, integrity and coordination, and derivatives: Family and community orientation and cultural competence<sup>1</sup>.

The Alma Ata conference (WHO, 1978), established that Primary Health Care is, “*the first level of contact for individuals, families and communities with the national health system, bringing health care as close as possible to the places where people live and work, constituting the first element for a process of continuous health care*”<sup>1</sup>.

The concept and principles of Primary Health Care were first consolidated on the twentieth century, marked by many experiences of assisting health models all over the world that made the foundation for the Alma Ata Declaration, in 1978; and since then, the strengthening of PHC was established as the main strategy for the organization of public health care services<sup>2</sup>.

In Alma Ata’s propositions, PHC is understood as a central function of the national health system, integrating a permanent process of sanitary assistance – which includes prevention, promotion, curing, rehabilitation and, as part of the more general process of social and economic development, involving the cooperation with other sectors to promote the social development and address health determinants. That is the in-depth or broadened conception and it corresponds to the conception of an assisting model and the reorientation and organization of an integrated health system centered on the PHC with warranty of comprehensive care<sup>3</sup>.

The PHC emerged as a strategy for achieving the health system’s principles of integrality, equity and universality, essential to the social protection systems. It can be defined as a set of individual or collective actions which are situated on the first level of care, in order to promote and protect health and prevent diseases, performing treatment based on the needs of the individual, the family

and the community<sup>4</sup>.

In essence, the PHC focuses on health care while considering the scope of individuals, families and communities, and their socioeconomic and cultural context, with the purpose of promoting health, preventing and controlling diseases and to offer health diagnosis and recovery services for individuals<sup>4</sup>.

Scientific evidence shows that the organization of health services that have PHC as a coordinator of health care have better results, with increased effectiveness of health promotion, disease prevention and health recovery actions<sup>1</sup>.

Several authors point out the great power of PHC in the mitigation of health inequalities; in the increased efficiency of care and the use of preventive practices; in coordinating the flow of users in the system, as well as in their satisfaction with the services and treatment<sup>5,6,7</sup>.

International experiences affirm that an integrated approach to Primary Health Care can improve health, producing positive results in the attention to people's needs, also impacting on professional qualification processes<sup>8</sup>.

Considering the above, this article aims to analyze models of training of health professionals in different countries, with an emphasis on Primary Health Care (PHC), noting possible similarities and differences that may exist; from scientific evidence from the period between 2009 and 2019.

## RESEARCH MATERIAL AND METHODS

The research is characterized as a literature review study of the Scoping Review type. It is a part of a larger study that had the following guiding question: *Based on the scientific productions, what has been studied about the training models of health professionals with emphasis on Primary Health Care, in different countries, in the period from 2009 to 2019?*

The literature search was carried out in the PubMed, VHL, ProQuest, EMBASE, and Scielo databases. The search strategy adopted the following descriptors and their combinations: (*“Health Workforce”* OR *“Aptitude”* OR *“Professional Competence”*) AND (*Models, Educational* OR *“Health Human Resource Training”*).

The organization of evidence and reading of title and abstract were performed through *Rayyan QCRI - Qatar Computing Research Institute*. A multidisciplinary research institute, established in 2010 by the Qatar Foundation for Education, Science and Community Development. It is characterized as a website application that assists researchers in the methodology of systematic reviews and/or meta-analysis and has advantages such as faster and more accurate processes, rigor and transparency; among others<sup>9</sup>.

As inclusion criteria we considered articles published between 2009 and 2019, in the theme of health training, in Portuguese, English, French and Spanish languages; having initially identified a total of 2,616 articles and considering duplicate articles (574) as one of the exclusion criteria we obtained 2,042. Through the other exclusion criteria adopted, such as absence of abstracts and articles not related to training in the context of Primary Health Care (PHC), 369 articles were registered for reading the titles and abstracts; after this step, 51 articles were obtained. In the end, 28 articles were selected. However, for the analysis and discussion in this study, a quantitative of 10 articles identified in two databases (PubMed and VHL) were selected.

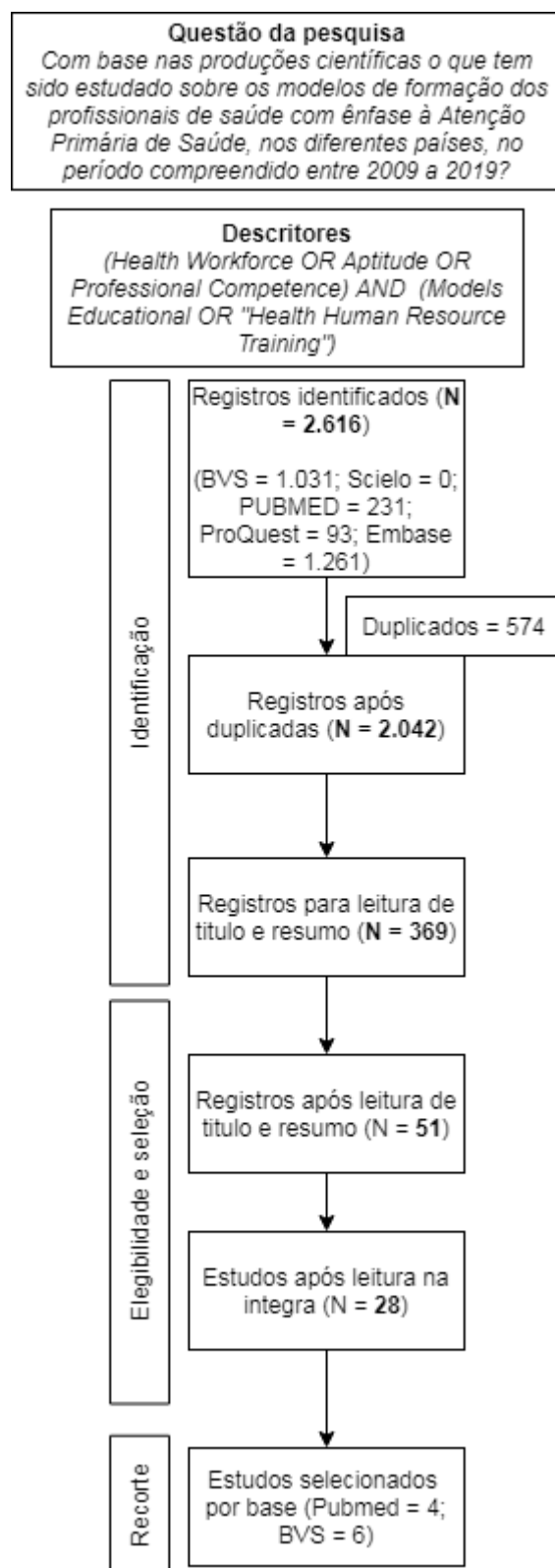
The results were analyzed using Content Analysis<sup>10, 11</sup> in the thematic analysis mode; and that it is an appropriate modality for qualitative health research; and that “*consists in discovering the nuclei of meaning that make up a communication, whose presence or frequency means something to the analytical object in question*”.

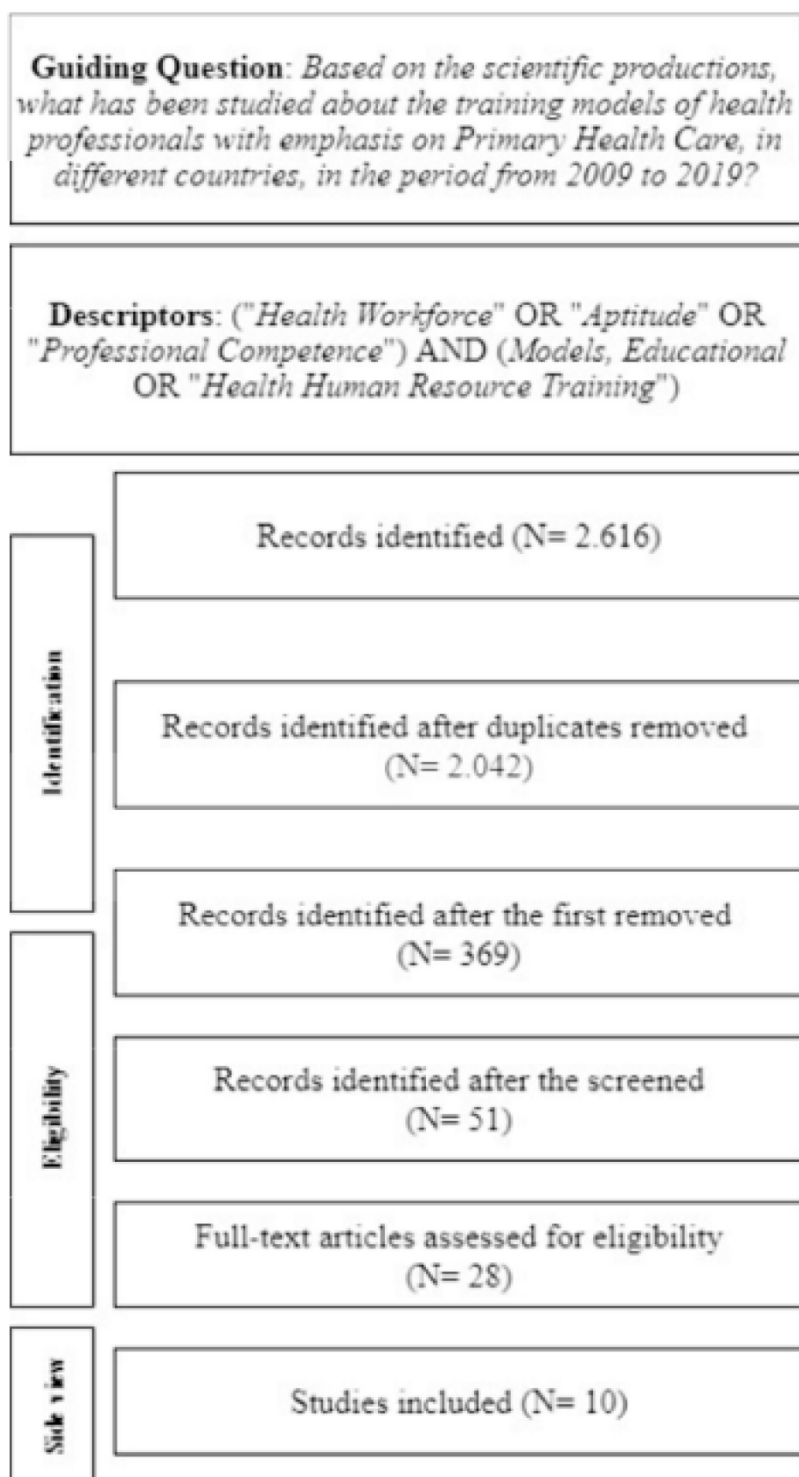
In this sense, the three operational stages of thematic analysis were followed: *pre-analysis* (determination of the unit of register, of context, the clippings, the categorization form, the coding modality and the more general theoretical concepts to guide the analysis); *exploration of the material* (a classificatory operation aimed at reaching the core of understanding of the text); and *treatment of results and interpretation*.

The results evidenced in the various studies found in this review research corroborated the preparation of the thematic categories. Observing the similarities, the elements and ideas, it was possible to identify the theme and the nuclei of meaning, considering our perception of the studies analyzed, in face of the guiding question of this research.

It is noteworthy that, since this study does not represent research involving human beings, it was not necessary to submit the project and research protocol for evaluation by the Ethics Committee for Research with Human Beings.

A schematic representation of the different steps of the literature search for the Scoping Review is shown below.



**Picture 1.** Flowchart of the literature search steps for the Scoping Review

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## RESULTS AND DISCUSSION

The studies related to the training of health professionals with emphasis on Primary Health Care are presented below; they are distributed in table 1, corresponding to the databases (PubMed and VHL) where they were identified. As can be seen, among the 10 selected studies, 4 of them were identified in the PubMed database, while the others (6) are in the VHL.

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Observing the distinct characteristics presented for each study, it can be seen that the populations studied involve subjects from different areas of health training; and the methodological approaches adopted, comprise qualitative and quantitative methods; mixed methods of health research; as well as, opinion articles.

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**Table 1.** Characteristics of studies related to training of health professionals with emphasis on PHC; identified in different countries, by database (*To be Continued*)....

| Database | Journals   | Author (Year) and "title"   | Population                                  | Objectives  | Study Design                  | Study Results   | Authors' Considerations (Synthesis)  |
|----------|--|---|---|---|-------------------------------|---|--|
| Pubmed   | American Journal of  | KAIRUZ T, NOBLE C, SHAW J. (2010). <i>PRECEPTORS, INTERNS, AND NEWLY REGISTERED PHARMACISTS' PERCEPTIONS OF NEW ZEALAND PHARMACY GRADUATES'</i>                                     | New Zealand                                 | To determine the perceptions of pharmacy interns and newly registered pharmacists about preparing graduates to enter professional practice.                     | Qualitative and Quantitative. | <ul style="list-style-type: none"> <li>• 195 instruments were evaluated;</li> <li>• Most of the interviewees were preceptors;</li> <li>• 87.6% of the responses generally agreed that the degree prepared the students for practice;</li> <li>• But the preceptor interviewers pointed out less favorable perceptions on the preparation of undergraduates</li> </ul> | <ul style="list-style-type: none"> <li>• Need to improve skills;</li> <li>• More professional a t t i t u d e s ;</li> <li>• Better communication in English and;</li> <li>• Additional training in extemporaneous composition.</li> </ul> |
| Pubmed   | Canadian Family Physician • Le Médecin de famille canadien | Thomas-Maclean R, Hamoline R, Quinlan E, Ramsden VR, Kuzmiec J. (2010). <i>Discussing mentorship: An ongoing study for the development of a mentorship program in Saskatchewan.</i> | Doctors (Junior Doctors and Senior Doctors) | Identify the essential components of an orientation program as the first step in the ongoing development of an orientation program for primary care physicians. | Mixed Method                  | <ul style="list-style-type: none"> <li>• Ongoing Studies;</li> <li>• They described positive and negative aspects of the orientation;</li> </ul>  | <ul style="list-style-type: none"> <li>• Combination of mentors and preceptors;</li> <li>• Integrate formal and informal aspects in guidance;</li> <li>• Evaluation process for mentors and students;</li> </ul>                           |

**Table 1.** Characteristics of studies related to training of health professionals with emphasis on PHC; identified in different countries, by database (*Continued*).....

| Database | Journals | Author (Year) and | Country | Objectives | Population | Study Design | Study Results | Authors' Considerations ( |
|----------|----------|-------------------|---------|------------|------------|--------------|---------------|---------------------------|
|----------|----------|-------------------|---------|------------|------------|--------------|---------------|---------------------------|

|        |  |  |                  |  |                       |             |  |  |
|--------|--|--|------------------|--|-----------------------|-------------|--|--|
| Pubmed | J o u r n a l<br>of<br>Dental<br>Education | Blue<br>CM.<br>( 2 0 1 3 )<br><i>Cultivating<br/>professional<br/>responsibility<br/>in a dental<br/>hygiene<br/>curriculum.</i> | United<br>States | The purpose of this study was to determine the effectiveness of curriculum changes designed to develop professional identity and responsibility throughout the dental hygiene curriculum period. | Dentistry<br>Students | Qualitative | <ul style="list-style-type: none"> <li>• 24 students at the beginning of the survey;</li> <li>• Students gave high scores for “Attitudes” in the period in the sixth semester;</li> <li>• The students, during the last semester, pointed out that dental care is a right and an obligation of society.</li> </ul> | The students’ sense of obligation to care for those in need has become stronger and they have also increased their perceptions of their own ability to impact the community and act as an agent of change. |
|--------|--|--|------------------|--|-----------------------|-------------|--|--|

**Table 1.** Characteristics of studies related to training of health professionals with emphasis on PHC; identified in different countries, by database (*Continued*).....

| Database | Journals  | Author (Year) and "title"   |               | Objectives  | Population                             | Study Design    | Study Results   | Authors' Considerations (Synthesis)  |
|----------|---|---|---------------|---|--|-----------------|---|--|
| VHL      | Currents in Pharmacy Teaching and Learning (Elsevier) | Patel K, Desai U, Paladine H. (2018) <i>Development and implementation of an interprofessional pharmacotherapy learning experience during an advanced pharmacy practice rotation in primary care.</i>                               | United States | Describe interprofessional education between pharmacy, medical, and nursing students during a primary care clinical rotation elective.  | Pharmacy, medical and nursing students | Qualitative and | 56 Interprofessional Education Perception Scale forms; Significant difference found in subgroups: professional competence and autonomy; and perceived need for professional competence. Tendency for respectful communication among students; collaborative environment, opportunity to learn about each other's professions. | The authors point out that programs that influence student interaction can be beneficial and lead to better collaboration; and they pointed out that they will continue the program as a basis for other activities. |
| VHL      | Currents in Pharmacy Teaching and Learning (Elsevier) | Teramachi H, Ino Y, Sugita I, Nishio Y, Yoshida A, Hayashi Y, Esaki H, Saito K, Noguchi Y, Iguchi K, Tachi T. (2018) <i>Evaluation of communication skills after long-term practical training among Japanese pharmacy students.</i> | Japan         | To assess pharmacy students' satisfaction with long-term hands-on training programs in hospital and community pharmacies and how these programs benefited communication skills. | Fifth-year pharmacy students           |                 | 83 fifth-year pharmacy students; Over 90% were satisfied with the experiences; The hands-on training improved their communication skills; and the training program done in hospitals and pharmacies did influence communication skills among the students.  | The students were satisfied with the hands-on training and the training helped improve communication skills.   |

**Table 1.** Characteristics of studies related to training of health professionals with emphasis on PHC; identified in different countries, by database (*Continued*)....

| Journals | Author (Year) and "title"  | Country       | Objectives  | Population                           | Study Design | Study Results  | Authors' Considerations (Synthesis)   |
|----------|--|---------------|---|--------------------------------------|--------------|--|---|
| VHL      | Stubbs C, Schorn MN, Leavell JP, Espiritu EW, Davis G, Gentry CK, Friedman E, Patton T, Graham A, Crowder R, Wilkins CH. (2017) <i>Implementing and evaluating a community-based, inter-institutional,</i> | United States | Developing a community-based IPE program that allowed students to engage in meaningful interprofessional activities while exposing them to social determinants of health. | Thirty students from ten professions | Quantitative | 30 students participated in the survey; in the categories about working with other professionals, comfort, values, and self-perception increased (CWO: z = -4,11, p <0,0001; VWO: z = -3,41, P = 0,001; SPA: z = -2,79, p = 0,005); Thus, the program was evaluated, by the students, as an improvement in their knowledge of the social determinants of health. | The authors support the expansion of community-based interprofessional education initiation programs. |

**Table 1.** Characteristics of studies related to training of health professionals with emphasis on PHC; identified in different countries, by database (*Continued*)

|     | Journals  | Author (Year) and "title"  | Objectives   | Population  | Study Design | Study Results  | Authors' Considerations (Synthesis)  |
|-----|---|--|--|---|--------------|--|--|
| VHL | The Journal of Alternative and Complementary Medicine | Kim DY, Park WB, Kang HC, Kim MJ, Park KH, Min BI, Suh DJ, Lee HW, Jung SP, Chun M, Lee IN. (2012) | Assess the prevalence, scope, and diversity of ACM (Alternative and Complementary Medicine) courses in Korean medical education. | Deans and academic or curricular professors at each of the 41 Korean medical schools. |              | 91.4% of the schools adopt courses in alternative and complementary medicine (ACM) as credits; 85.4% have the subject as mandatory; The values assigned by the students regarding the core competencies, such as attitude, knowledge, and ability, were higher for the former. | Diversity in content, format, and requirements in the ACM courses offered; Educational approach to ACM for students;   |
| VHL | Nurse Educator  | Hahn J. (2010). <i>Integrating</i>   | Provide nursing students with professional insight and political awareness on health policy issues.                              | Nursing Students  |              | Economic method successfully done to level topics between bachelor's and doctoral degrees; Increased student interest in health care policy; Interest in investing in advocacy.  | The authors point out that it is a professional obligation to integrate the pedagogy of professional and political awareness; The media has helped in the knowledge of health care policies. |

**Table 1.** Characteristics of studies related to training of health professionals with emphasis on PHC; identified in different countries, by database (*Conclusion*)

|     | Journals            | Author (Year) and "title"  | Country       | Objectives  | Population      | Study Design    | Study Results  | Authors' Considerations (Synthesis)  |
|-----|---------------------|--|---------------|---|-----------------|-----------------|--|--|
| VHL | J. Nurse Educ Today | Tufts KA, Clements PT, Karłowicz KA. (2009). <i>Integrating intimate partner violence content into nursing curriculum: Developing a new generation of nurse educators.</i> | United States | Integrate intimate partner violence content into nursing curriculum for developing nurse educators. | Nurse Educators | Opinion article | Educating future nurse educators about IPV, however, presents challenges because most nurses are unaware of IPV as a public health problem, have limited knowledge and erroneous beliefs about IPV, and are inexperienced in caring for IPV survivors. | Providing formal education and training in a supportive environment will improve Nurse Educators' knowledge and skills about IPV by helping them examine the benefits and limitations of various pedagogical approaches to teaching this critical content to students. |

**Source:** Scientific Literature Databases, VHL and PubMed.

Considering the results and the conclusive syntheses of the studies listed in the exposed table; and following the operational steps in the development of content analysis in the thematic modality, the analysis categories emerged; and observing the similarities, the elements, ideas and pertinences present in the studies' evidences, the theme and the nuclei of meanings were identified; presented and discussed below.

**Table 2.** Presentation of the theme and nuclei of meanings elaborated from the thematic categorical analysis

| THEME   | NUCLEI OF MEANINGS  |
|---|---|
| Training Professionals for PHC and Community Health | Competencies, attitudes and skills in the training of health professionals. |
|   | Interprofessional education and learning in health.                         |

### **Training professionals for PHC and community health**

Ensuring the quality and resoluteness of the care provided to the individual, family, and community, from the perspective of health promotion and disease prevention, in the search for integral care, presupposes changes in the training processes with innovation in pedagogical approaches for the construction of professional profiles with the competencies required for the work process and health care.

Knowledge, attitudes, and skills are domains of competence that, among others, need to be improved by professionals, so that, from a critical and problematizing view of the realities experienced, they are able to meet the health demands present in the communities.

Among the studies observed in this research, among other aspects, they seek to raise awareness among students to care for the most vulnerable, strengthening their perception of their ability to impact the community and act as an agent of change<sup>12</sup>.

The literature reports that educational institutions, health systems, and policy makers are experimenting with models of teaching approaches; looking for evidence of effectiveness in improving outcomes and producing factors essential for sustainable change in a continuous improvement environment<sup>13</sup>.

The formative processes need to value teaching approaches that lead future professionals to the development of collaborative teamwork practices with resolute capacities, considering the common competencies; as well as, the specific competencies of each profession; aiming at the integrality of care.

In Primary Health Care, training and qualification are associated with the search for the

guarantee of universality and completeness of care; and professionals, in addition to understanding a territory based on the family and community approach, need to consider PHC as a space of collective construction, where the various subjects are involved in health care<sup>14</sup>.

PHC is considered a privileged training space for health professionals, since it is characterized as the preferred entrance door to the health care network, welcoming users and families, seeking to establish links and accountability for individual and collective care<sup>15</sup>.

Faced with the challenges posed by the world of work, paradigm shifts involving the conceptions of health and education need to be experienced during training, expanding the possibilities of horizontalization and democratization of knowledge. The competencies and skills need to be developed by health professionals, so that they become subjects committed to the search for equity of care, access, and citizenship<sup>16</sup>.

### ***Competencies, attitudes and skills in the training of health professionals***

Considering the transcripts that brought out “Competencies, attitudes, and skills in the training of health professionals” as nuclei of meaning, we have:

*“Need for improved skills, more professional attitudes...”*

*“The application of a competency-based framework [...] can provide valuable information about program effectiveness for [...] educators and preceptors of [...] patient care and treatment programs [...] and oral health maintenance.”*

*“...develop competent dental work force, appreciating the value of community service...”*

*“...effective [...] curriculum changes [...] professional responsibility among [...] students [...] attitude scores increased in the curriculum...”*

*“...practical training [...] useful for improving your communication skills...”*

*“...formal education and training in a supportive environment will enhance the knowledge and skills of Nurse Educators [...] by helping them examine the benefits and limitations of various pedagogical approaches to teaching critical content to students.”*

*“...the practical training institution was helpful in improving your communication skills...”*

*“The most common courses were introduction to [...] integrative medicine [...] homeopathy and naturopathy [...] acupuncture [...] order [...] of core competencies was attitude [...] knowledge [...] and skill...”*

Competence is the ability to act effectively in a given situation, supported by, but not limited



to, knowledge. Competence seeks to respond to the needs of the contemporary world; it is built in training, but also in the different work situations<sup>17</sup>.

The new demands of the world of work, the dynamism of educational concepts and practices, and the reconfiguration of the health care model are influencing the opening of spaces for the formulation and expansion of educational processes aimed at the qualification and development of professional skills and competencies<sup>18</sup>.

Among the studies analyzed (table 1), it was evidenced that the formation of odontologists, in the field of community health, has been considered effective in improving the competence of students; be it regarding critical thinking, professionalism, communication and interpersonal skills, among other domains; being able to develop a work force that values community service<sup>19</sup>. In this same perspective, among the studies found, it was found that changes in the training curriculum of these professionals, cultivating professional responsibility, were effective in increasing the degree of attitude of students.

In the national and international literature, competence is seen as the professional's ability to employ a complex interaction of knowledge, attitudes and skills to perform an activity. The construction of competence means to establish guidelines of responsibility of the dentist that based on knowledge, skills and attitudes that, mobilized in a complementary way with those of other professionals, will contribute to reorient the work process and build new social practices, including in the field of primary care<sup>20</sup>.

The need for improved skills and more professional attitudes are also evident among the studies in this literature review research; as can be seen in the transcripts presented above.

Researchers evaluated the preparation of pharmacy graduates for professional practice, based on the analysis of competency standards. This leads us to the understanding that the analysis of competencies through well-defined standards and criteria helps to measure the performance, knowledge, attitudes, and abilities of the student, thus outlining the profile of the professional.

In Brazil, the Curricular Guidelines for the training of pharmacy students recommend a pedagogical organization that consolidates the development of competencies, skills, and attitudes that contributes to significant learning by the students and to bring pedagogical practice closer to professional reality, seeking to integrate teaching, service, and community<sup>21</sup>; at the same time provides students with their insertion in Primary Health Care training scenarios.

The notion of competence should guide the change in teaching contents, in the organization of the ways of communicating knowledge, and in the ways of evaluating them, and should be explored in its still imprecise limits, understanding that competence is not determined in isolation by the professional, patient, or practice scenarios, but rather by the dynamic interaction among them<sup>22</sup>.

In this study, competencies, knowledge, attitudes and skills were also present in health training in courses related to integrative practices; and although we know that these thematic approaches characterize theoretical and practical content in Korean medical education, where the study referred to here (and shown in table 1) was conducted, we recognize that the development of essential competencies by professionals, facing these care practices is configured as primary care practices, since they seek to prevent diseases, promote, maintain and recover health.

It is worth mentioning that in Brazil since 2006, with the creation of the National Policy of Integrative and Complementary Practices (NPICP) in SUS,<sup>23</sup> there have been incentives and valorization of the formation of health professionals with competencies for the development of integrative and complementary health practices; and the NPICP, among the guidelines, establishes their insertion in all levels of care, with emphasis on Primary Health Care.

Among the professional's competencies, the NPICP recommends that he/she should act in an integrated and planned manner according to the priority activities of the Family Health Strategy; in order to act in the fields of disease prevention and health promotion, maintenance and recovery based on a humanized care model and centered on the individual's wholeness.

Competency-based training implies developing in the student the ability to mobilize knowledge, skills and attitudes to deal with real-life situations, problems and dilemmas<sup>22</sup>.

Therefore, we believe that health training processes that institute changes based on competency-based training and that recognize PHC as a privileged training space, since it is characterized as the preferred gateway to the health care network, may contribute to the expansion of knowledge that, when conceived during training, will lead future professionals to attitudes and ethical, technical, political and social commitment; being potentially able to impact changes in everyday work and health in communities.

### ***Interprofessional education and learning in health***

Transcripts extracted from studies presented in the results of this research show that interprofessional education has been an ongoing debate in health education. In research related in chart 1, the authors show that learning experiences are developed in primary health care, identifying that students reveal the importance of working with other professions, stating that they have potential for better results in collaborative experiences.

In this review study, we identified experiences that analyze the development of community-based interprofessional education, showing changes in students' perceptions, these changes being related to different competencies; and in line with other initiatives that use this teaching approach, also revealing positive changes related to teamwork, competencies and ability to participate in shared problem solving and decision-making.

From the analysis of the studies mentioned above, the transcribed excerpts corroborated the identification of “Interprofessional Education and Learning in Health”, as nuclei of meaning for discussion in this article.

Following are the transcripts:

*“...significant difference on the IPHE scale found in the subgroups of professional competence and autonomy and perceived need for professional competence...”*

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*“...collaborative environment in which students had the opportunity to learn about each other’s professions.”*

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*“...findings [...]aligned with [...]community-based IPE initiatives and support the expansion of IPE efforts...”*

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Interprofessional Education (IPE) corroborates the valorization of competencies in the training of health professionals, since *“Interprofessional Education (IPE) is committed to the development of three competencies - competencies common to all professions, specific competencies of each professional area, and collaborative competencies, that is, respect for the specificities of each profession, participatory planning, the exercise of tolerance, and negotiation, in a movement of collaborative networks”*<sup>24</sup>.

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IPE is a major influence in the demand for change in health professions education; and with the assumption that this teaching approach facilitates collaborative care, all health professions education programs adopting interprofessional education are working to create opportunities for students to learn “with, from, and about others” in meaningful ways<sup>25</sup>.

The need to strengthen health systems based on the principles of primary health care has become one of the most urgent challenges for policy makers, health professionals, managers, and communities around the world. In this regard, world leaders are seeking innovative, system-transformative solutions that ensure the availability, variety, and appropriate distribution of the health workforce. And they ensure that one of the most promising solutions lies in interprofessional collaboration<sup>26</sup>.

The World Health Organization (WHO) through the Framework for Action on Interprofessional Education and Collaborative Practice published in 2010, recognizes that many health systems in the world are fragmented and struggling to manage unmet health needs<sup>26</sup>.

WHO highlights that the current and future health workforce is challenged to deliver health services in the face of increasingly complex health problems; and considers that interprofessional collaboration in education and practice as an innovative strategy will play an important role in reducing the global health workforce crisis, and emphasizes that collaborative practice strengthens health systems and promotes improved health outcomes.

Interprofessional (or collaborative) care/practice occurs when multiple health professionals from different backgrounds provide comprehensive health services, working with patients, their families, caregivers, and communities to provide the highest quality of care in all settings<sup>13</sup>.

Considering the background, historical perspective, trends and barriers to the implementation of IPE in developed countries such as the United States, United Kingdom and in developing countries of the South Asian Association for Regional Cooperation (SAARC), authors point out that the main objective of the IPE program is to develop attitudes, skills, knowledge and behaviors essential for collaborative practice; emphasizing that in developed countries, different models of IPE have been successfully incorporated into the curricula of their degree programs<sup>27</sup>.

In Brazil, the Interprofessional Collaborative Practices (ICP) has been a concern of the training process, seeking the strengthening of the fundamental principles of the Unified Health System (SUS). The curricular guidelines of several health courses point to the need for learning collaborative teamwork. The literature that supports the studies on IPE brings a reasonable amount of evidence on the effectiveness and efficiency impacts of this practice in the short term<sup>28</sup>.

In this sense, the Ministry of Health in partnership with the Ministry of Education has instituted policies that induce curricular changes aligned to the National Curriculum Guidelines (DCNs) for undergraduate courses in the area of health in Public Brazilian Universities, and more recently, implemented the PET-Health Interprofessionality, which among other provisions, seeks to strengthen the *“qualification of the teaching-service-community integration processes, in an articulated manner between the Unified Health System-SUS and the educational institutions, in order to promote Interprofessional Education - IPE and Collaborative Health Practices”*<sup>29</sup>.

These initiatives have strengthened the insertion of undergraduate health students in training experiences in Primary Health Care settings.

## CONCLUSION

Observing the distinct characteristics presented in each study, it can be seen that the populations studied were composed of subjects from different areas of health training; and among these include students, professionals, educators and preceptors of internship and practical training camps. The methodological approaches adopted, comprising qualitative and quantitative methods; and mixed methods of health research; as well as opinion articles; show differences in the methods used by researchers in their investigations.

It is found that there are important similarities among the studies analyzed, namely; the emphasis and appreciation in the analysis of the development of competencies of health professionals in training; revealing that the predominant domains were among others, skills, attitudes, knowledge; and in some findings, interpersonal communication skills, cultural competence and critical thinking were evidence reported by the authors.

It is considered, therefore, that these similarities observed, in our understanding, constitute fundamental characteristics in a teaching-learning process, and corroborate the formation of professional health profiles with the ability to analyze the problems of the individual and the community in health services and communities, which favors the practice of health care.

Important similarities also observed, are that international research leads us to conclude that Interprofessional Education (IPE) has been increasingly present in health education; and in this case in particular, education aimed at training in the field of primary care/primary health care; and this is a teaching approach that reaffirms, strengthens, and qualifies the training process, which beyond the use of specific competencies of each professional area, values the development of competencies common to all the professions, and collaborative competencies, through a true teamwork with participatory planning, in a collaborative network movement.

It is worth noting that in this review study, it was observed that some countries such as the United States, New Zealand, Japan and others, although their health services are not organized with Primary Health Care as the coordinator of care, have been developing research related to the training of health professionals with emphasis on primary care and community health, which denotes the concern in training professionals with skills and abilities required for their performance in the perspective of health promotion and disease prevention.

A different approach that is considered innovative was the evidence of analyses of studies on pedagogical approaches with contents that in the authors' view are considered critical to be offered to the students, such as the theme that deals with "intimate partner violence".

In our understanding, this is an approach of fundamental importance for health education, especially for training in the context of PHC, and that therefore, we understand that issues such as these are increasingly valued since they represent an important public health issue; which, no doubt, leads us to a problem that gives the care and attention of PHC professionals; and in our view, its approach in the context of training professionals is necessary.

Finally, it is recorded that in our literature search for the Scoping Review, no study conducted in Brazil was identified, however, scientific experiences from other countries were verified, published in national journals. The knowledge and academic experiences of the authors of this article recognize that in our country, there are already experiences of teaching in health, with emphasis on PHC; including with inductive policies of change promoting the IPE; emphasizing that the current DCNs for undergraduate courses in health have been reorienting training in these perspectives.

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