Teaching competencies for interprofessional training in higher education in health: a protocol for a scoping review

Competências docentes para a formação interprofissional no ensino superior em saúde: um protocolo de revisão de escopo

Competencias docentes para la formación interprofesional en la enseñanza superior sanitaria: protocolo para una revisión del alcance

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ABSTRACT

Objective: To describe a scoping review protocol to identify and map teaching competencies for interprofessional education in Higher Education in Health. Introduction: The current challenges in training healthcare providers with the skills and abilities to act in the complex daily life that involves care entail the broad understanding of health as a process of collective construction, which will presuppose the training of critical-reflective healthcare providers. For this, it is essential that the facilitators of this process are clear about their role and have access to
tools that can enable such training. Inclusion criteria: Papers published up to 2023 with the following themes in their titles and abstracts will be included: Teaching in Higher Education in Health, Higher Education in Health, and Competences for Interprofessional Education in Health. Methods: The protocol of this review follows the methodology proposed by the Joanna Briggs Institute (JBI) Manual and the PRISMA guidelines for constructing the protocols and registering scoping reviews. Two independent reviewers will select the articles by their title and abstract based on the blinding provided by the tool. Inconsistencies will be discussed regarding eligibility criteria. The selected articles will then be read in full and the data will be described according to the flowchart and summary guided by the PRISMA-ScR methodology. Conclusion: This scoping protocol will base the mapping for evidence to understand the competences needed to teach and develop pedagogical practices in curricular proposals based on interprofessional education.

**Keywords:** Competency. Teacher Training. Health. Higher Education. Interprofessional Education. Scoping Review.

**RESUMO**

Objetivo: Apresentar um protocolo de revisão de escopo para identificação e mapeamento das competências docentes para a formação interprofissional no Ensino Superior em Saúde. Introdução: Considerando os desafios atuais na formação de profissionais de saúde para atuar no complexo cotidiano que envolve o cuidado, faz-se necessária a compreensão ampla de saúde como processo de construção coletiva, o que irá pressupor a formação de um profissional de saúde crítico-reflexivo. Para tanto, é imprescindível processos formativos que valorizem a autonomia, colaboração e aprendizagens compartilhadas. Critérios de Inclusão: Serão incluídos trabalhos publicados até a data da busca, considerando o ano de 2023 e que contenham no título e resumo as seguintes temáticas: Docência no Ensino Superior em Saúde, Ensino Superior em Saúde e Competências para a Formação Interprofissional em Saúde. Métodos: O protocolo segue a metodologia proposta pelo Manual do Instituto Joanna Briggs (JBI) e as diretrizes PRISMA para construção do protocolo e registro da revisão de escopo. Dois revisores independentes selecionaram os artigos pelo título e pelo resumo com base no cegamento fornecido pela ferramenta. As inconsistências serão discutidas com relação aos critérios de elegibilidade. Os artigos selecionados serão então lidos na íntegra e os dados serão descritos de acordo com o fluxograma e o resumo orientados pela metodologia PRISMA-ScR. Conclusão: Este protocolo de revisão de escopo será a base para a realização do mapeamento que busca evidências para apreender as competências necessárias à docência na saúde em contextos curriculares fundamentados na educação interprofissional.


**RESUMEN**

Objetivo: Describir un protocolo de revisión de alcance para identificar y mapear las competencias docentes para la educación interprofesional en la Educación...
Superior en Salud. Introducción: Los desafíos actuales en la formación de proveedores de salud con habilidades y destrezas para actuar en la compleja cotidianidad que implica el cuidado, implican la comprensión amplia de la salud como un proceso de construcción colectiva, lo que presupondrá la formación de proveedores de salud críticos-reflexivos. Para ello, es fundamental que los facilitadores de este proceso tengan claro su papel y dispongan de herramientas que posibiliten dicha formación. Criterios de inclusión: Se incluirán trabajos publicados hasta 2023 con los siguientes temas en sus títulos y resúmenes: Docencia en Educación Superior en Salud, Educación Superior en Salud y Competencias para la Educación Interprofesional en Salud. Métodos: El protocolo de esta revisión sigue la metodología propuesta por el Manual del Instituto Joanna Briggs (JBI) y las directrices PRISMA para la construcción de los protocolos y el registro de las revisiones de alcance. Dos revisores independientes seleccionarán los artículos por su título y resumen basándose en el cegamiento proporcionado por la herramienta. Se discutirán las inconsistencias respecto a los criterios de elegibilidad. A continuación, los artículos seleccionados se leerán en su totalidad y los datos se describirán según el diagrama de flujo y resumen guiado por la metodología PRISMA-ScR. Conclusiones: Este protocolo de alcance fundamentará el mapeo en busca de evidencias para comprender las competencias necesarias para enseñar y desarrollar prácticas pedagógicas en propuestas curriculares basadas en la educación interprofesional.


1 INTRODUCTION

Cantano et al (2021) state the persisting predominance among higher education professors of the “unpreparedness and even scientific ignorance of what the learning process is, for which they become responsible from the moment they enter the classroom” (p. 54860)

According to Cunha (2019):

“(…) There is an intrinsic relationship between teaching and learning as the teacher materializes the act of teaching with the participation and involvement of students. This means that teaching is unable to materialize itself disconnected from learning, the genuine intention of teaching. The condition of teaching presupposes human interactions and is crossed by the ethical perspective that involves empathy and respect for students’ knowledge. It includes an affectionate relationship with the teaching subject and pedagogical skills that stimulate their desire to learn.” (p. 127; our translation)
The paths to teaching aimed at training healthcare providers face a significant challenge regarding performance profiles and what is currently expected of these professionals from the perspective of comprehensive care. According to Silva and Pinto (2019), “changes in professional training in health demand dialogue with pedagogical proposals and require teachers to structure learning scenarios that are significant and problematize professional practice.” (p.135; our translation)

The COVID-19 pandemic gave visibility to important debates about the work performed by healthcare providers during this period, finding that interprofessional work showed greater problem-solving capacity and better care results. (Goldman e Xyrichis, 2020; Khalili e Xyrichis 2020; Xyrichis e Williams, 2020).

According to Xyrichis (2020), scientific trends suggest a movement toward a new era in healthcare in which “interprofessionality is the new normal and the old unprofessional ways is something to look back on with puzzlement”.¹ (p.03)

Thus, thinking about Interprofessional Education and how teachers have prepared themselves for the teaching-learning process becomes a priority in this context. According to Grasel and Rezer (2019) “in the contemporary context, teachers are pressured to give legitimacy to what is provided for in the guidelines with regard to the development of competencies and skills for students.” (p.148; our translation)

Thus, the protocol of this scoping review aims to answer the question “What are the teaching competencies necessary to work in contexts of Interprofessional Education in Higher Education in Health in Brazil and abroad?”

2 BACKGROUND

A preliminary search was carried out on the Virtual Health Library (VHL), Pubmed, Web of Science, Scopus, and Embase databases, finding no current or ongoing systematic or scoping reviews on the proposed topic. The JBI

¹ Current trends suggest we are steadily moving toward a new era of health and social care, where interprofessionality is the new normal and old uniprofessional way is something to look back on with puzzlement.
Evidence Synthesis and Cochrane Database of Systematic Reviews were also searched.

A systematic review protocol was found that was closer to the proposed theme, but it failed to meet the mapping objective proposed for this review.

The review that will be carried out after the publication of this protocol aims to map the teaching competencies for interprofessional training in Higher Education in Health, within the national and international context, seeking clues to understand how teacher development occurs in higher education institutions according to the question: “What are the teaching competencies necessary to work in the contexts of Interprofessional Education in Higher Education in Health in Brazil and abroad?”

The methodology of this review was chosen in view of the central objective of this research. According to Munn et. al (2018), explaining the main concepts/definitions in the literature and finding the main characteristics or factors related to a concept offer indications for conducting a scoping review, which is in line with what is intended with this review.

The publication of this protocol dialogues with the strengthening of Interprofessional Science, enhancing scientific rigor by explaining the methodological choice to develop a scoping review.

3 METHOD

This scoping review protocol was prepared according to the JBI Manual and Peters et al (2020, 2015) and was registered on the Open Science Framework Platform, available at https://doi.org/10.17605/OSF.IO/B2CFE.

The methodological choice stemmed from the need to map the current evidence on the proposed theme since many researchers have focused on the theme in different places. It is important to understand what has been done to later plan the best way to contribute to the development of higher education teachers in health, discussing the competencies necessary to work in contexts of interprofessional education in higher education in health.

Table 1 was built to choose the descriptors available on Health Sciences
Descriptors (DeCS) and Medical Subject Headings (MeSH), which included terms extracted from the bibliographic references to construct this review, subdivided according to the PCC Acronym (Population, Concept, and Context). After searching for terms, 10 DeCS/MeSH descriptors were selected (Table 2).

Table 1 - Choice of terms from the bibliographic references used in this review

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>CONCEPT</th>
<th>CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education Professors in Health</td>
<td>Teaching competencies to work in contexts of Interprofessional Education</td>
<td>Higher Education in Health in the National and International context</td>
</tr>
</tbody>
</table>

**Table 2 - Definition of the DeCS and MeSH terms for the search strategy**

<table>
<thead>
<tr>
<th>DeCS</th>
<th>MeSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPACITAÇÃO DE PROFESSORES</td>
<td>Teacher Training</td>
</tr>
<tr>
<td>COMPETÊNCIAS</td>
<td>Competency</td>
</tr>
<tr>
<td>DOCÊNCIA</td>
<td>Teaching</td>
</tr>
<tr>
<td>DOCENTES</td>
<td>Faculty</td>
</tr>
<tr>
<td>EDUCAÇÃO EM SAÚDE</td>
<td>Health Education</td>
</tr>
<tr>
<td>EDUCAÇÃO INTERPROFISSIONAL</td>
<td>Interprofessional Education</td>
</tr>
<tr>
<td>ENSINO SUPERIOR</td>
<td>Higher Education</td>
</tr>
<tr>
<td>INSTITUIÇÕES DE ENSINO SUPERIOR</td>
<td>Universities</td>
</tr>
<tr>
<td>PRÁTICAS INTERDISCIPLINARES</td>
<td>Interdisciplinary Placements</td>
</tr>
<tr>
<td>SAÚDE</td>
<td>Health</td>
</tr>
</tbody>
</table>

Source: Author, 2023

The search strategy (Table 3) was constructed based on the initially chosen terms on the BVS database and adapted to the other databases chosen.
for this research.

Table 3: Search strategy – BVS

<table>
<thead>
<tr>
<th>SEARCH</th>
<th>KEYWORDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>MH:Docentes OR Faculty OR (Professor, University) OR (Professors, University) OR (University Professor) OR (University Professors) OR Docentes OR (Corpo Docente) OR Docente OR Educador OR Educadores OR Professor OR (Professor Universitário) OR Professores OR (Professores Universitários) OR (Professores de Ensino Superior) OR (Professores do Ensino Superior) OR MH:M01.526.702.250$ OR (desenvolvimento docente) OR (faculty development)</td>
</tr>
<tr>
<td>#2</td>
<td>MH: “Competência Profissional” OR (Professional Competence) OR (Expertise Generalization) OR (Expertise, Technical) OR (Generalization of Expertise) OR (Technical Expertise) OR (Competencia Profesional) OR (Competence, Professional) OR MH:I02.399.630$</td>
</tr>
<tr>
<td>#3</td>
<td>MH: “Educação em Saúde” OR (Health Education) OR (Community Health Education) OR (Education, Community Health) OR (Education, Health) OR (Health Education, Community) OR (Educação en Salud) OR (Educar para a Saúde) OR (Educación para a Saúde) OR MH:I02.233.332$ OR MH:N02.421.726.407$</td>
</tr>
<tr>
<td>#4</td>
<td>MH: “Práticas Interdisciplinares” OR (Interdisciplinary Placement) OR (Collaborative Learning) OR (Collaborative Learnings) OR (Interdisciplinary Placements) OR (Learning, Collaborative) OR (Learning, Shared) OR (Placement, Interdisciplinary) OR (Placements, Interdisciplinary) OR (Shared Learning) OR (Prácticas Interdisciplinarias) OR (Aprendizado Colaborativo) OR (Aprendizado Compartilhado) OR (Aprendizados Colaborativos) OR (Aprendizagem Colaborativa) OR (Aprendizagem Compartilhada) OR (Aprendizagens Colaborativas) OR (Colocação Interdisciplinar) OR (Colocações Interdisciplinares) OR (Prática Interdisciplinar) OR MH:I02.578$</td>
</tr>
<tr>
<td>#5</td>
<td>MH:“Educação Interprofissional” OR (Interprofessional Education) OR (Education, Interprofessional) OR (Educación Interprofesional) OR (Treinamento Cruzado) OR MH:I02.358.805$ OR MH:SH1.030.030.002$</td>
</tr>
</tbody>
</table>

1# AND 2# AND 3# AND 4# AND 5# = 115 RECORDS

Source: Author, 2023

According to the recommendation for all types of JBI reviews, the three stages of the search strategy will be followed for the selection of publications.

3.1 STUDY/SOURCE OF EVIDENCE SELECTION

Based on the terms in Table 2, the VHL, Pubmed, Web of Science, Scopus, and Embase databases will be searched. The WorldWideScience.org will be
used to search the grey literature. The choice of these repositories considered the methodological rigor and the need to systematize the search for this type of literature.

The choice of databases considered the theme to be researched. In this first stage, article titles and abstracts will be surveyed and read to filter the publications agree with the objective of this review (Table 4).

<table>
<thead>
<tr>
<th>DATABASE</th>
<th>KEYWORDS</th>
<th>PRIMARY OUTCOME</th>
<th>TOTAL AFTER THE EXCLUSION OF DUPLICATES</th>
<th>TOTAL PRE-SELECTED STUDIES</th>
<th>FINAL SAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Health Library (VHL)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pubmed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web of Science</td>
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<td></td>
</tr>
<tr>
<td>Scopus</td>
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<td>Embase</td>
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</tr>
</tbody>
</table>

Source: Author, 2023

All identified keywords and indexing terms will be included, adapted to each database and/or source of information, in the second stage of the search strategy.

Studies carried out up to the date of the search will be included, considering 2023 as the limit, in all languages.

The Prisma Flowchart will be used in the article selection process according to the guidelines of the JBI Manual for Evidence Synthesis (2020).

After this selection, the titles and abstracts of the chosen publications will be read by two reviewers for evaluation according to the inclusion criteria for the review.

The references retrieved in the articles will be exported to the Ryyan web application (COPYRIGHT © 2022 RAYYAN) to eliminate possible duplicates and systematize the search for future steps.

The selected publications will be read in full and validated according to the screening table of the studies below (Table 5):
The description of the inclusion and deletion process will be detailed in the text. All divergences will be discussed by the reviewers at each stage in meetings for agreement after systematization appropriation.

Search results will be reported in full in the final scoping review and described according to the Report for Systematic Reviews and Extension of Meta-Analyses for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018).

### 3.2 DATA EXTRACTION

Data will be extracted from the articles included in the scoping review by two independent and blinded reviewers using the data extraction tool developed by them. In case of discrepancies, a third reviewer will be included to resolve conflicts. The extracted data will include specific details about the relevant
participants, concept, context, study methods, and key findings to the review question(s).

During analysis, other characteristics may be included in the framework to enrich the review without the initiative incurring in devaluing this protocol.

If necessary, the authors of the articles may be contacted to provide further pertinent information and/or explanations for the review.

4 PILOT

The SciELO database was selected for the pilot study based on the keywords “(FORMAÇÃO DOCENTE) OR (ENSINO SUPERIOR) OR (COMPETÊNCIAS) AND (SAÚDE) AND (EDUCAÇÃO INTERPROFISSIONAL).”

In this pilot, it was decided to only use the descriptors in Portuguese due to the number of articles the search could bring and considering the Manual (2020), which indicates that a pilot study should be carried out from a random sample selection of 25 titles/abstracts and have a team examine the documents using the eligibility criteria and definitions/elaboration document, followed by meetings to discuss discrepancies and modifications to eligibility criteria and definitions/drafting document. According to the Manual, “Team only starts screening when 75% (or greater) agreement is achieved” (p.419).

Thus, based on the search in the Scielo database, which resulted in 199 articles, the first 25 results were chosen for examination according to the eligibility criteria and the subsequent discussion by the team.

This first pilot was carried out using the Endnote® tool to eliminate duplicates and Microsoft Excel® 2010, in which the pre-selected references were inserted for inclusion, exclusion, or observation for later discussion. The Rayyan® app will be used for a peer review, in which articles will be blinded for analysis of the criteria and later opened for discussion.

After applying the inclusion and exclusion criteria and using the form to extract data, the applicability of the resources selected for this scope review was screened. It was also decided to use the descriptors in Portuguese and English to ensure the broad mapping as proposed in the objectives of this review. The
pilot also made it possible to adjust the search strategy considering the specificities of the chosen databases.

5 DISCUSSION

Implementing Interprofessional Education requires organizational support and the involvement of teachers, students, and healthcare providers, highlighting the importance of institutional policies, committed management, experienced and interested leadership, and real intentionality of all involved (Reeves et al., 2016).

This review will include articles that dialogue with the concept of teaching competence as the ability to articulate and mobilize knowledge, know-how, attitudes, ways of thinking, and skills in different situations, involving personal relationships in the institutional context, as well as emotional aspects and the personal relationship with professionalization (Perrenoud, 2000; Cano, 2005; García et al, 2008) aiming at mapping teacher competencies to work in interprofessional education contexts.

Results will be described in a diagram as a possibility to categorize the mapping results. However, the authors understand that this can change based on the findings. A narrative description of the diagram will be carried out in order to enable a better understanding of the evidence found.

6 CONCLUSION

The protocol presented was prepared in accordance with existing guidelines for the type of study chosen and will be the basis for carrying out the proposed mapping, guaranteeing methodological rigor and empowering interprofessional science. The evidence found from this review will be used to understand the competencies needed to teach and develop pedagogical practices in curricular proposals based on interprofessional education. These results will subsidize the discussion of new proposals for teacher training, assuming teacher development as a process of permanent education, a challenge that is posed to all those involved in health education, collaborative, critical and reflective.
7 LIMITATIONS AND RECOMMENDATIONS

The results of the pilot study were obtained using a database chosen for this purpose. We understand that the final study may present significant differences in view of the other databases that will be used as well as the inclusion of gray literature.

Finally, we recommend that the stage of creating the protocol and running the pilot study be included in all review research, seeing as it is an important methodology that should be carried out responsibly.

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