

Sustainability of Interprofessional Education: a scoping review protocol

Nathalia Hanany Silva de Oliveira, Renata Fonsêca Sousa de Oliveira, Juliana Pontes Soares, Janete Lima de Castro

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Sustainability of Interprofessional Education: a scoping review protocol

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Abstract

Background: Interprofessional education (IPE) is an approach that can improve healthcare quality, contribute to the qualification of healthcare professionals, and train undergraduate students. Although this strategy has made significant progress in the last decade, integration, sustainability, and institutional growth are still priorities worldwide. Thus, maintaining strategies is essential for their full development and evolution.

Objective: Identify discussions about the sustainability of interprofessional education and map its actions or strategies (or both).

Methods: The scoping review will follow the Joanna Briggs Institute methodology. Two independent and blind reviewers will evaluate and select studies available in English, Portuguese, based on the eligibility criteria. Searches will be conducted on LILACS, EMBASE, SCOPUS, PUBMED/MEDLINE, ERIC, Web of Science, CINAHL, Google Scholar databases; ProQuest Dissertations & Theses Global, and Brazilian Digital Library of Theses and Dissertations. This scoping review will incorporate studies (empirical or theoretical-reflective) that address strategies and actions (or both) for IPE sustainability. They must present a quantitative, qualitative, or mixed methods approach and be available in full text. Data on strategies or actions for IPE sustainability will be extracted and inserted into a spreadsheet for analysis; then, the main results will be presented in tables.

Results: This protocol will guide this scoping review to identify discussions on the sustainability of interprofessional education and map its actions or strategies (or both). In addition, possible research gaps can be identified to guide future studies. This review will shed light on existing knowledge gaps and the current state of research, which could provide support for future research, programs, and policy responses to foster collaboration and interprofessional practice and, consequently, improve the quality of user care.

Conclusions: This study protocol introduces the main methodological steps that will be followed, so that it may be hoped that this review will summarize the main strategies and/or actions for IPE sustainability, the definitions and institutions that develop or promote IPE, as well as the main recommendations for the area under study. This information will be useful in supporting decision-making by government officials, managers, teachers, facilitators and students in the implementation, maintenance, and development of IPE.

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Original Manuscript

Sustainability of Interprofessional Education: a scoping review protocol

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Introduction: Interprofessional education (IPE) is an approach that can improve healthcare quality, contribute to the qualification of healthcare professionals, and train undergraduate students. Although this strategy has made significant progress in the last decade, integration, sustainability, and institutional growth are still priorities worldwide. Thus, maintaining strategies is essential for their full development and evolution.

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Keywords: College education; health training; interprofessional education; sustainability; training of human resources in health.

Introduction

The social and economic situation is changing the epidemiological and demographic profile worldwide, increasing social inequalities and healthcare problems. Therefore, changes are needed in health systems and the training of healthcare professionals [1]. In this context, interprofessional education (IPE) qualifies healthcare professionals and trains students from several undergraduate programs, evidencing its ability to improve healthcare [2]. This strategy allows members of more than one health profession to interactively learn how to improve interprofessional collaboration or the health and well-being of patients [3]; the latter is one of the most important benefits of IPE [4].

The literature also highlights the benefits of IPE to students, facilitators, and patients of health services. Students are benefit from an improved understanding of other health professions, practical learning to work in interprofessional teams, and maximizing patient care and outcomes. For facilitators, the IPE provides reflections and learning about their professional practice and highlights the importance of the entire team focusing on the patient care. For patients, the IPE improves the quality of care [5]. Interprofessional education starts from recognizing that the health-disease process is the expression of life and work (i.e., how individuals, families, and social groups are inserted in society) and also meet the needs of the complex healthcare network, based collaboration between healthcare professionals [6].

Global changes, especially after the COVID-19 pandemic, have presented an opportunity to increase innovation in education, health systems, and their interaction. In this sense, education facilitated by information technologies began to be used, offering subsidies for competency-based education and IPE [7]. Although this strategy has made significant progress over the last decade, the Interprofessional Research Global stated that IPE integration, sustainability, and growth at the institutional level are still priorities worldwide [8]. Therefore, maintaining strategies is essential for its full development and evolution.

A preliminary search was conducted in January 2024, as Joanna Briggs Institute (JBI) recommended [9]. The International Prospective Register of Systematic Reviews, the Cochrane Library, JBI Evidence Synthesis, and the PubMed/MEDLINE databases were searched. The search terms used were ("Interprofessional education") AND ("Sustainability" OR "Sustain" OR

"Continuity" OR "Durability" OR "Sustainabilities"); and in the Virtual Health Library ("Interprofessional Education") AND ("Sustainability" OR "Maintenance" OR "Continuity" OR "Durability").

A literature review study [10] was identified; the authors evidenced the barriers and facilitators for IPE until December 2012. They highlighted the importance of facilitators for IPE sustainability. However, this review neither focused on sustainability nor followed the JBI recommendations, which are reliable since they present transparency and rigor. Thus, this topic requires an update.

The synthesis of sustainability strategies and actions (or both) for IPE may help managers, teachers, and facilitators in their decision-making at their institutions. The compilation may assist them in maintaining IPE in their practice settings (educational institutions or health services) and developing new sustainability strategies. Furthermore, this scoping review may assist in the development of new research.

Considering the need to synthesize and consolidate sustainability strategies for maintaining IPE and global changes after the pandemic, this scoping review will seek to Identify discussions about the sustainability of interprofessional education and map its actions or strategies (or both).

Methods

The proposed scoping review will be conducted in accordance with the JBI methodology [9] for scoping reviews and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) extension [11]. Also, the review will consider Peters et al. recommendations [12] to ensure rigor, transparency, and reliability.

Review question

The research question was formulated using the Population, Concept, Context mnemonic [13].

Population

This review will consider studies that explore any IPE initiatives in courses, programs, electives, mandatory subjects, extensive activities, projects developed in communities, hospital training wards, care teams, common activities, online modules in the distance education modality, case discussions, and simulated activities; these interventions must have involved at least 2 health professions [14]. Thus, the population is broad [15].

Concept

This review will consider studies that explore IPE sustainability. Sustainability is defined as the condition or quality of something that can sustain, defend, maintain, or conserve itself [16]. In 2010, the World Health Organization launched the "Framework for Action on Interprofessional Education and Collaborative Practice" [17], which had an influence worldwide. This framework followed the changes in the education of healthcare professionals. The document provided strategies and ideas that helped policymakers implement interprofessional education and collaborative practice in public policy.

In America, the Pan American Health Organization released a technical cooperation that launched a Regional Network on IPE and strengthened its implementation in national human resources policies for health. Thus, initiatives were needed to ensure IPE sustainability in the academic area, continuing health education practices, and daily teamwork [14]. For instance, Brazil launched an action plan to implement IPE, a promising initiative to ensure IPE sustainability in the country [14]. The plan includes initiatives, such as curricular changes and the educational practices of healthcare professionals using IPE.

Context

This review will consider studies developed in the IPE context, whether an academic, educational, or professional practice, that included curriculum-based or continuing IPE education. No restrictions will be made regarding geographic location, sex, ethnicity, or other demographic components. Interprofessional education is a method that emerged to train healthcare professionals to promote collaboration within and between teams, improving healthcare quality [18].

In this context, the questions of this scoping review protocol were defined as follows: How is the literature presetting the discussion of IPE sustainability? Has IPE sustainability entered the agendas of teaching-service institutions? What have been the sustainability strategies for IPE actions?

Identification of Relevant Studies

The search strategy will be formulated based on a combination of controlled descriptors (health science descriptors, medical subject headings (MeSH), CINAHL subject headings, and Emtree) and keywords (or both) related to the topic, associated with the booleans operators "AND" and "OR".

Searches will be conducted in Latin American and Caribbean Literature in Health Sciences (LILACS), EMBASE, SCOPUS, Medical Literature Analysis and Retrieval System Online, (PUBMED/MEDLINE), Education Resources Information Center (ERIC), Web of Science, and Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases. Sources of unpublished studies and gray literature will also be searched: Google Scholar, ProQuest Dissertations & Theses Global, and Brazilian Digital Library of Theses and Dissertations. A manual search will also be conducted in the reference lists of the initially selected studies to find other eligible studies. Furthermore, authors will be contacted via e-mail to request the full text when needed.

An initial limited search was performed on the MEDLINE/PubMed database to identify studies on the topic. The terms contained in the titles and abstracts of the relevant studies and their index terms were used to develop a comprehensive search strategy for MEDLINE/PubMed (check Appendix I). The search strategy will be adapted for each information source, including all identified keywords and index terms. The reference lists of studies selected for full-text review will be analyzed to identify other eligible studies.

The search strategy will locate primary studies, reviews, and opinion articles. Duplicates, studies, or documents whose acquisition is not allowed via university institutional login and those out of scope will be excluded.

This scoping review will consider studies available in full-text (empirical or theoretical-reflective) that present a quantitative, qualitative or mixed method. Additionally, systematic reviews and opinion articles will be considered for inclusion. Studies published in English, Spanish, and Portuguese will be included. Those made in other languages will not be included due to financial and time constraints for translations. The date of publication will not be restricted.

Study Selection

After searching the databases, all identified records will be grouped and imported into Rayyan; duplicates will be removed. Following a pilot testing, 2 independent reviewers will assess titles and abstracts based on the inclusion criteria. Potentially relevant studies will be retrieved in full-text, and their citation will be imported from Rayyan. Two independent reviewers will also assess the full text of the citations. Reasons for excluding full-text studies will be reported in the scoping review. A third reviewer will be consulted in case of disagreements between the

reviewers at each stage of the study selection. The research results will be fully reported in the final scoping review and presented in a PRISMA flow diagram [19].

Data Extraction and Coding

In a pilot test, 2 independent reviewers will extract data from the studies included using a data extraction tool (Microsoft Excel) developed by the reviewers. The pilot test will be conducted with a random sample of 25 studies (title and abstract) to assess eligibility criteria and agreement among researchers; agreement must reach at least 75% before proceeding with independent assessment. The reviewers will later check the extracted data to discuss discrepancies and ensure accuracy. Details about study selection (identification, screening, eligibility, and inclusion) will be presented in a flowchart.

The extracted data will include specific details about the initiatives, courses, programs, or disciplines (population), strategy or action for IPE sustainability (concept), definition that the study uses for IPE (context), characteristics of discussions on IPE sustainability, and evidence source details and results. A draft extraction tool will be used (check Table 1), which was modified and revised as needed during the data extraction for each included study. Modifications will be detailed in the full scoping review. Any disagreements between reviewers will be resolved by discussion with a third reviewer. Authors will be contacted to request missing or additional data when needed. As scoping reviews do not seek to assess the quality of the selected studies, the risks of bias in the studies will not be assessed.

Table 1. Instrument for data extraction^a.

Data	Description
Type of production	Study, book chapter, event summary, dissertation, thesis and others
Research approach	Quantitative, qualitative or mixed
Publication date	Year of publication
Country where the study was conducted	Where the study was conducted or published
Scientific journal	Journal that published the study

Author qualification Highest title of the first author

Title Study title

Objective/purpose Objective or purpose of the study

Type of study Type of research described by the authors

Data collection Methods for data collection

Study population Name of initiatives, courses, programs, and disciplines

Concept: sustainability Description of the strategy or action for IPE Sustainability

Context: IPE Describe the concept the article uses for IPE

Development Institution that promoted or developed strategies or actions for

institution the IPE sustainability

Results Main results of the study

Recommendations Recommendations that the study can offer for IPE

Legend: IPE: interprofessional education

Analysis and Interpretation of Results

A qualitative and quantitative synthesis and a narrative of the data extracted from the selected studies will be developed to describe the characteristics of the discussions about sustainability and the actions and strategies (or both) of IPE, thus answering the research questions.

The information will be presented in tables, compiling the main results, conclusions, and implications.

Consultation with Stakeholders

It is intended to introduce the preliminary results to five stakeholders in the field of Interprofessional Education in such a way that they can analyze and identify any gaps that may be present. This step will help expand knowledge through new evidence not identified in the review, making it possible to develop strategies and directions for future studies [20].

^a Source: Adapted from Joanna Briggs Institute model[9].

To this end, the stakeholders will be sent an e-mail with an informed consent, an electronic spreadsheet with the preliminary results, as well as a request for appraisal. Stakeholders will not be identified, and the authors will ask for an appraisal of the results and possible new fields or evidence, such as, for example, suggestions for additional articles or data that could be extracted from the studies.

Ethics Approval

This study will comply with the ethical principles of research with human beings [21]. It was therefore submitted to and approved by the Research Ethics Committee of the Onofre Lopes University Hospital of the Federal University of Rio Grande do Norte, under Protocol nº 6.483.476.

The results of this review will be shared through publications in renowned, peer-reviewed, and open access journals of great importance to public health and education, favoring and expanding the dissemination of knowledge to the scientific community. Any changes to this protocol will be reported appropriately in the record made in the Open Science Framework and in the final publication, including dates and justifications.

Results

This protocol will guide this scoping review to identify discussions on the sustainability of interprofessional education and map its actions or strategies (or both). In addition, possible research gaps can be identified to guide future studies. All the steps of the scoping review favor its transparency and allow it to be methodologically replicated according to the principles of open science, reducing the risk of bias and duplication of data.

To this end, it was registered with the Open Science Framework on February 8, 2024. The database search step took place on March 22, 2024. The remaining steps will be carried out between April and September 2024. The deadline for submitting the manuscript is October 2024.

Discussion

Main Results

This research will identify studies that discuss IPE and highlight its sustainability strategies. Mapping this information will help decision-makers, managers, teachers, facilitators, and

students implement, maintain, and develop IPE. It should be noted that vocational training is currently at a crucial moment for potential changes [7].

In addition, this review will shed light on existing knowledge gaps and the current state of research, which could support future research, programs, and policy responses to foster collaboration and interprofessional practice and, consequently, improve the quality of user care.

Limitations

This protocol guides the development of the scoping review. Nonetheless, it may not cover all the pertinent literature. Thus, studies indexed in different databases may not be traced in the searches. In addition, the limitation of language to English, Portuguese, and Spanish for the inclusion of studies may not locate some publications. Furthermore, the use of descriptors and search terms in English and Portuguese may also be a limitation for this study.

Conclusion

This study protocol introduces the main methodological steps that will be followed, so that it may be hoped that this review will synthesize the main strategies and/or actions for IPE sustainability, the definitions and institutions that develop or foster IPE, as well as the main recommendations for the area under study. This knowledge will enable researchers, managers, teachers, students, and political decision-makers to better understand what can be done in terms of implementing, maintaining, and developing IPE.

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Author contributions

NHSO conceived the study idea and wrote the manuscript. All authors contributed to the writing, approved the manuscript, and agreed with the methodology.

Conflicts of interest

The authors declare no conflict of interest.

Abbreviations

CINAHL: Cumulative Index to Nursing and Allied Health Literature

ERIC: Education Resources Information Center

IPE: Interprofessional Education

JBI: Joanna Briggs Institute

LILACS: Latin American and Caribbean Health Sciences Literature

MeSH: Medical Subject Headings

Multimedia Appendix 1

Search strategy MEDLINE (PUBMED). Research conducted in March 2024.

References

- 1. Costa MV, Freire Filho RJ, Brandão C, Silva JAM. Education and interprofessional practice in line with the historical commitment to strengthen and consolidate the Brazilian National Health System (SUS). Interface (Botucatu) 2018; 22(2):e1507-1510. https://doi.org/10.1590/1807-57622018.0636
- 2. Costa MV. Unidade 2 Educação Interprofissional e suas bases teórico-conceituais e metodológicas. Curso de Educação Interprofissional em Saúde. 2018. www.avasus.ufrn.br [accessed 2023-07-10].
- 3. Reeves S, Perrier L, Goldman J, Freeth D, Zwarenstein M. Interprofessional education: effects on professional practice and healthcare outcomes (update). Cochrane Database Syst Rev 2013; 3(CD002213). PMID: 23543515.
- 4. Breitbach AP, Sargeant DM, Gettemeier PR, Ruebling I, Carlson J, Eliot K, et al. From buy-in to integration: melding an interprofessional initiative into academic programs in the health professions. J Allied Health 2013;42(3):e67–73. PMID: 24013253.
- 5. Naumann FL, Nash R, Schumacher U, Taylor J, Cottrell N. Interprofessional education clinical placement program: a qualitative case study approach. J of Interprof Care 2021;35(6):e899-906. doi: 10.1080/13561820.2020.1832448
- 6. Peduzzi M. The SUS is interprofessional. Interface (Botucatu) 2016;20(56):199-201. https://doi.org/10.1590/1807-57622015.0383
- 7. Frenk J, Chen LC, Chandran L, Groff EOH, King R, Afaf M, et al. Challenges and opportunities for educating health professionals after the COVID-19 pandemic. Lancet 2022;400(10362):e1539-1556. doi: 10.1016/S0140-6736(22)02092-X
- 8. Khalili H, Lackie K, Langlois S, Wetzlmair LC. Global IPE Situational Analysis Result Final Report. Madison, WI: Interprofessional Research Global; 2022. ISBN:9781736696323.
- 9. Peters MDJ, Godfrey C, McInerney P, Munn Z, Tricco AC, Khalil, H. Scoping Reviews (2020). In: Aromataris E, Lockwood C, Porritt K, Pilla B, Jordan Z, editors. JBI Manual for Evidence Synthesis. Adelaide: JBI; 2024. https://doi.org/10.46658/JBIMES-24-09
- 10. Lawlis TR, Anson J, Greenfield D. Barriers and enablers that influence sustainable interprofessional education: a literature review. J Interprof Care 2014;28(4):305-310. doi: 10.3109/13561820.2014.895977
- 11. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Ann Intern Med 2018; 169(7):467-473. doi: 10.7326/M18-0850
- 12. Peters MDJ, Marnie C, Tricco AC, Pollock D, Munn Z, Alexander L, et al. Updated methodological guidance for the conduct of scoping reviews. JBI Evid Synth 2020 Oct;18(10):2119-2126. doi: 10.11124/JBIES-20-00167

- 14. Gontijo ED, Freire Filho JR, Forster AC. Educação interprofissional em saúde: abordagem na perspectiva de recomendações internacionais. Cad cuid 2019;3(2). https://doi.org/10.29397/cc.v3n2.186
- 15. University of South Australia. What is PCC? South Australia: University of South Australia; 2024. https://guides.library.unisa.edu.au/ScopingReviews/ApplyPCC. [accessed 2024-01-10].
- 16. Ferreira ABH. Dicionário Aurélio da Língua Portuguesa. 5. ed. Curitiba, PR: Positivo Livros; 2010. ISBN: 9788538541981.
- 17. World Health Organization. Marco para Ação em Educação Interprofissional e Prática Colaborativa. Geneva, CH: WHO; 2010. https://www.gov.br/saude/pt-br/composicao/saes/dahu/pnsp/publicacoes/marco-para-acao-em-educacao-interprofissional-e-pratica-colaborativa-oms.pdf/view [accessed 2023-11-23].
- 18. Toassi RFC, Olsson TO, Lewgoy AMB, Bueno D, Peduzzi M. Undergraduate teaching in primary health care settings: a space for interprofessional teaching. Trab Educ Saúde 2020; 18(2):e0026798. https://doi.org/10.1590/1981-7746-sol00267
- 19. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Goffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021; 372(71):112. doi: https://doi.org/10.1136/bmj.n71
- 20. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. Implement Sci 2010 sep 20;(5):69. PMID: 208544677
- 21. Conselho Nacional de Saúde (Brasil). Portaria n. 466, de 12 de dezembro de 2012. Brasília, DF: CNS; 2012. https://conselho.saude.gov.br/resolucoes/2012/Reso466.pdf [accessed 2023-07-23].

Supplementary Files

Multimedia Appendixes

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