




Collaborative interprofessional education for undergraduate and postgraduate study in Health Sciences

La educación colaborativa interprofesional en los estudios de pre y posgrado en Ciencias de la Salud

Educação colaborativa interprofissional na graduação e pós-graduação em Ciências da Saúde

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Received: 23-02-2023 Accepted: 15-04-2023 Published: 16-05-2023

ABSTRACT

Introduction: interprofessional education is included in the third major health education reform. It consists of health systems-based teaching, focused on local and global competencies. It is the foundation of an interprofessional collaborative practice that guarantees a comprehensive health care service for patients, families and the community. **Objective:** to demonstrate the need for interprofessional education process in undergraduate and postgraduate Health Sciences education as a guarantee of an effective interprofessional collaborative practice that contributes to a sustainable and inclusive comprehensive health care. **Method:** a document analysis, in English and Spanish, was carried out in several databases: Scopus, SciELO, PubMed/MedLine, Redalyc, Google Scholar and the Infomed portal. The information was systematized and authors gave their critical evaluations. **Development:** collaborative interprofessional practice has

been increasing in different scenarios and has become an essential condition for quality care service demanded by society and healthcare systems worldwide in recent years, and it is a necessary requirement for safety. Collaborative interprofessional education improves coordination, integration and the merging of useful knowledge among different health and social care professionals. A close relationship between ministries of health and training institutions is required for interprofessional education from undergraduate and postgraduate. **Final considerations:** collaborative interprofessional education in health care education contributes to sustainable interprofessional collaborative practice.

Keywords: interprofessional education; interprofessional collaborative practice; postgraduate; Health Sciences

RESUMEN

Introducción: la educación interprofesional se enmarca en la tercera gran reforma de la educación sanitaria. Consiste en una docencia basada en sistemas sanitarios, enfocada en competencias locales y globales. Es el sustento de una práctica colaborativa interprofesional que garantice la Atención Médica Integral centrada en el paciente, la familia y la comunidad. **Objetivo:** fundamentar la necesidad de la educación interprofesional en la formación de pre y posgrado en Ciencias de la Salud como garantía de una práctica colaborativa interprofesional eficaz que tribute a una Atención Médica Integral sostenible e inclusiva. **Método:** se efectuó un estudio documental en idioma inglés y español en diversas bases de datos: Google Académico, SciELO y Red Nacional de Información en Salud (Infomed). Se sistematizaron las informaciones y se efectuaron valoraciones críticas de los autores. **Desarrollo:** la práctica colaborativa e interprofesional ha tenido un ascenso en diferentes escenarios y deviene en condición esencial para la atención de calidad según demanda la sociedad y los sistemas de salud en los últimos años en todo el mundo, y es un requisito necesario para una atención de la salud de calidad y segura. La educación colaborativa interprofesional mejora la coordinación, integración y fusión de saberes útiles entre distintos profesionales de la salud y en la atención social. Se requiere un estrecho nexo entre los ministerios de salud y las instituciones formadoras en función de una educación interprofesional desde el pregrado, posgrado y durante la formación continua. **Conclusiones:** la educación colaborativa interprofesional en la formación salubrista tributa a una práctica colaborativa interprofesional sostenible.

Palabras clave: educación interprofesional; práctica colaborativa interprofesional; posgrado; Ciencias de la Salud

RESUMO

Introdução: a educação interprofissional faz parte da terceira grande reforma da educação em saúde. Consiste no ensino baseado em sistemas de saúde, focado em competências locais e globais. É o suporte de uma prática colaborativa interprofissional que garante uma assistência médica integral centrada no paciente, na família e na comunidade. **Objetivo:** fundamentar a necessidade da educação interprofissional na graduação e pós-graduação em Ciências da Saúde como garantia de uma efetiva prática colaborativa interprofissional que contribua para uma assistência médica integral sustentável e inclusiva. **Método:** estudo documental realizado em inglês e espanhol em diversas bases de dados: Scopus, SciELO, PubMed/MedLine, Redalyc, Google Scholar e Red Nacional de Información en Salud (Infomed). As informações foram sistematizadas e feitas avaliações críticas dos autores. **Desenvolvimento:** a prática colaborativa interprofissional despontou em diferentes cenários e tornou-se condição essencial para uma assistência de qualidade exigida pela sociedade e pelos sistemas de saúde nos últimos anos em todo o mundo e é requisito necessário para uma assistência de qualidade, com qualidade e segura. A educação colaborativa interprofissional melhora a coordenação, integração e fusão de conhecimentos úteis entre diferentes profissionais de saúde e assistência social. É necessária uma articulação estreita entre os ministérios da saúde e as instituições de formação com base na educação interprofissional desde a graduação, pós-graduação e durante a formação continuada. **Considerações finais:** a educação colaborativa interprofissional na formação em saúde contribui para uma prática colaborativa interprofissional sustentável.

Palavras-chave: educação interprofissional; prática colaborativa interprofissional; pós-graduação; Ciências da Saúde

How to cite this article:

Díaz-Ortiz A, Durand-Rill R, Robinson-Jay F. Collaborative interprofessional education for undergraduate and postgraduate study in Health Sciences. Rev Inf Cient 2023; 102:4174. DOI: <https://dx.doi.org/10.5281/zenodo.7942994>



INTRODUCTION

The enormous amount of scientific information is growing constantly and exponentially. The formalized tendency of professionals in the face of so much information is to specialize and concentrate their area of knowledge and clinical practice to a narrow scope, not only specialization, but also verticalization constrained within a given specialty.⁽¹⁾

The environment in which most healthcare professionals work imposes collaboration and interprofessional work, if high quality services are to be provided. The type of patient has evolved over the past 100 years from young patients with infectious, and therefore curable, diseases to increasingly elderly patients with multiple chronic non-curable diseases requiring care and adjustment rather than cure.⁽²⁾

The increasing complexity of patients with multiple chronic diseases and diverse symptomatology does not allow treating them from the reduced vision of a specialty, as the interconnection with severe health problems can lead to the error of treating by omission and commission.

Medical errors are the result of multiple failures. These include organizational errors and errors committed by professionals at the bedside. The latter are the final link in the chain and, consequently, the immediate cause of most adverse events.⁽³⁾ On the other hand, they include erroneous assessments, omissions or mistakes in the execution of clinical actions and communication errors.⁽⁴⁾

Among the causes that hinder communication among professionals, role confusion and professional sectarianism stand out, aspects that are promoted by the unidisciplinary approach that has traditionally guided the education of healthcare professionals.⁽⁵⁾

Collaborative communication failures in the hospital context constitute one of the main precursors of medical errors that precipitate two out of three serious adverse events.⁽⁶⁾ In community care, it is considered that 25% of adverse events are precipitated by problems in dialogic reflection.⁽⁷⁾

Unidisciplinary education has offered few opportunities both to explore the nature and complementarity of the roles of the different health professions and to formally address the teaching of communicative and collaborative skills that allow for effective and constructive interprofessional communication that encourages the abandonment of isolationist practices deeply rooted in the current clinical context.⁽⁸⁾

The aim of this paper is to support the need for interprofessional education in undergraduate and postgraduate health studies as a guarantee of an effective interprofessional collaborative practice that contributes to sustainable Integrated Health Care.



METHOD

A documentary review was carried out in national and international databases and websites, such as: Scopus, SciELO, PubMed/MedLine, Redalyc and Infomed, during the period from February to August 2022. The following keywords were applied: interprofessional education, interprofessional collaborative practice.

Forty-two updated references were selected to allow a systematization of interprofessional education and collaborative practice in health sciences education.

The proposals consulted were critically analyzed according to their level of relevance: cognitive and instrumental, contextual, experiential and the normative ethical implications according to the national health scenario.

A program was defined for the reasoning of the information based on the need to select and analyze the bibliography, obtain the articles, read the titles and summaries, verify their relevance and then proceed to write the scientific text.

DEVELOPMENT

The implementation of collaborative and interprofessional education is aimed at improving collaboration among different types of professions in health care and its extension to the family and society in different contexts.⁽⁹⁾

In this sense, interprofessional collaborative education (ICE) is assumed as a didactic tool that stimulates meaningful learning in a collaborative and interactive way in health care. It is reconfigured as a pedagogical conception coherent with the needs of strengthening health systems.

Learning group in collaborative interprofessional education: it is constituted by the group of people who interact with each other during the accomplishment of tasks for the achievement of objectives/goals in the different processes of collaborative solution of common health problems.

From this definition, it is important to recognize the interprofessional group as a unit of intelligence and synergic action, synthesis of dynamic internal psychological and technical forces. This constitutes an ethical space of inter-subjective dialogue, where the propitiatory efforts can be integrated from a heuristic orientation in the preparation, improvement and permanent self-development of the individual.

The knowledge and training for the management of group techniques -how level- will be insufficient as long as they are not enriched with an appropriate theory about the internal characteristics of the group and the management of mobilizing practices that help to operate collaboratively with complex and multidimensional phenomena.



The discernment of group techniques is indeed valid. However, beyond their perspective, there is the level of scientific theory, where the significance of motives, interests and individualities in facilitating useful learning is recognized.

Therefore, the activity with groups is fundamental in the pedagogical work of the discipline's collective, because it constitutes a space of social mediation where the interaction of the individual, the professional and the social environment is synthesized through centralized and decentralized networks.

In such relationships, the understanding of the dialectics of the particular and the general dimensions is required in order to facilitate the formation in the interprofessional professionalization from the preparation and performance approach.

At present, the challenges to the growing demands of health systems underline the need for effective teamwork. This imposes the necessary interprofessional collaborative practices based on the preparation and improvement of health professionals. This is why curricula based on the transmission and reproduction of knowledge is insufficient to prepare students to face a world in continuous and profound transformation; to live and develop successfully in the globalized era of knowledge.

According to the World Health Organization (WHO) definition, Interprofessional Education (IPE) "occurs when students from two or more professions learn about each other, with each other and from each other, to enable effective collaboration and improve health outcomes" from the collaboration, consensus and trust that is learned.⁽¹⁰⁾ In this sense, the WHO affirms the importance of IPE as "an innovative tool that will help solve the global health system crisis."⁽¹¹⁾

There is sufficient evidence over the past 50 years that effective IPE "promotes collaborative practice relevant to different health problems" and that "collaborative practice strengthens health systems and improves health outcomes."⁽¹²⁾

The authors believe that this didactic tool promotes and facilitates consensus and trust in the different scenarios of education at work.

However, despite the growth in recent years, studies presented in 2019 provide evidence that it is a challenge to address IPE from the organizational and institutional levels.⁽¹³⁾ The transformation of care demands requires qualitative changes in the preparation and performance of healthcare personnel.

This is the reason for the need to train health sector professionals, focused on an integrated vision of patient care in the face of the growing demands of the multifactorial impact on the patient's state of health. IPE is the source of normative ethical collaboration between different professional categories and sectors, which is conducive to meeting the expectation of achieving the improvement of individual and community health and well-being.



The socio-professional competences shown in the performance of multidisciplinary teams and in the collaborative practice of professionals are manifested with the application of interpersonal communication skills, authority management and accurate and timely decision making; and the execution of roles (definition, interaction and advocacy).⁽¹⁴⁾

Evidence indicates that promoting knowledge, skills, values and wills promotes collaborative practice and improves team performance by promoting unity of intelligence and action, and allowing the development of respect and recognition of the abilities of others. This type of training allows health professionals to make the best use of their capabilities, infrastructure and resources in terms of patient care.⁽¹⁵⁾

There is a need to strengthen IPE as the capacity of human resources in the health sector to improve outcomes and thus strengthen health systems,⁽¹⁶⁾ since the use of isolated components of the curriculum throughout professional training alone favors the unidisciplinary approach that has traditionally guided the training of health field professionals. Therefore, WHO recommends that training institutions adapt their teaching structures and modalities to promote both IPE and collaborative practice.⁽¹⁷⁾

A conceptual transformation in the curricular conception in the training of health personnel would lead to a curricular transformation in the methodological treatment of the academic, occupational and scientific-research components from a collaborative and interprofessional perspective in undergraduate to postgraduate education. At present, curricular relations occur within the specialty itself and are expressed in a care practice with fissures in collaboration and interprofessionalism.⁽¹⁸⁾

Researchers consider that there is a growing need for the methodological work of the teaching staff to be directed towards interprofessionalism. Therefore, it is necessary education at work to promote collaboration and interprofessionalism in order to enhance the quality of health services, which requires the teaching task to find problems which solution requires the collaborative presence of different professions in order to improve relationships within the work team.

The continuous improvement of the quality of specialized care to the person, the family and the community is achieved through interprofessional collaborative practice with a high level of cooperation, organization and coordination among technologists, nurses and medical specialists, in a professional environment of reflective communication, trust and mutual respect. These skills can be trained from the undergraduate level, accompanied by socio-professional attitudes that allow teamwork based on ethical principles and socio-humanistic values.

Clinical research focused on interprofessionalism allows the development of innovative and critical scientific thinking, with the participation of all in a transversal and cooperative way to solve health problems of the patient, the family, the community and the environment, through the constant generation of knowledge and with the recognition of the contribution and the merged knowledge of each of the members of the health team.



Interprofessional Collaborative Practice (ICP) has experienced a worldwide increase in the last two decades. The experiences of countries such as the United Kingdom, the United States, Canada and Australia are well known; in Latin America, Brazil and Colombia stand out.⁽¹⁹⁾

Currently, the different disciplines and professions must provide health services based on ICP to solve complex problems in acute and chronic patients, and make diagnostic and therapeutic decisions in comprehensive health care with shared responsibility and recognition of the contributions of all in the provision of services to patients, the family and the community in all scenarios.⁽²⁰⁾

There is complete agreement globally and at different levels of health care that collaborative practice is a necessary condition for ensuring quality, safe and expeditious care for the population, professionals and health care systems.⁽²¹⁾

Health care providers are aware that in order to achieve comprehensive health care that provides effective, high-level solutions to the increasingly complex problems presented by patients with chronic noncommunicable diseases that require diverse approaches and multiple treatments, and that these patients are increasingly becoming knowledgeable about their diseases and therapeutics, knowledge, skills and information from different disciplines and professions must be integrated in a coordinated and integrated manner. It is unlikely that any one health professional can solve today's individual, family and community health problems in isolation.⁽²²⁾

It is recognized that studies on ICP are still a growing topic; more and more research corroborates that it contributes to the improvement of health services in a comprehensive and integrated manner.^(23,24,25)

In this sense, the following characteristics stand out:

- a) Increase in users' satisfaction and decrease in family and patient dissatisfaction.
- b) Reduction of medical errors, complications, mortality and health care costs.
- c) Reduction of hospital stay and minimization of labor efforts.
- d) Minimization of physical and psychological exhaustion of the professionals and reduction of work stress.
- e) Increased job satisfaction and professional performance.
- f) Increased retention and institutional job stability and reduced attrition.

Interprofessional work is distinguished by:^(26,27,28)

Defined and shared objectives.

- a) Clear responsibilities and team roles: each member executes his or her role creatively and competently, and recognizes the functions and responsibilities of the rest of the work team.
- b) Sense of belonging, identity and cohesion of the health team. Mutual respect, empowerment and confidence in the group's ability to solve problems with shared responsibility.



- c) Integration and interdependence for analyzing situations, making and implementing decisions at work.
- d) Shared leadership, cross-functional and democratic approaches. All recognize and facilitate individual and collective performance and success.
- e) Innovative approach to deal with crises.
- f) Critical and reflective dialogue. Transversal, democratic, open and fluid communication. Respect for all opinions and perspectives.
- g) Development of protocols, training and joint work practices.

Factors that condition ICP: the factors that condition whether ICP is feasible or not in the different organizational units adopt multidimensional frameworks because they are all interconnected with each other, although they are individual and specific, and are grouped into four domains.

The domains assumed are: relational domain, procedural domain, organizational domain, and contextual domain.^(29,30)

The relational domain contemplates factors that influence interprofessional relationships such as:

- Humor and empathy.
- The professional functions to be performed that determine the effectiveness and performance of the work team.
- The socio-affective relationships between the members of the work team.
- Professional prestige.
- Attitudes, values, norms and ways of acting of each team.
- Assertive and multidirectional communication to achieve better care.
- Integrated work based on mutual respect and trust.^(31,32)

The procedural domain refers to the elements that determine how collaborative practices are carried out, such as:

- Delegation of responsibility and shared roles.
- Space and time where shared tasks are executed.
- Harmonizing routines.
- Availability of computer and information technologies.^(33,34)

The organizational domain refers to the social factors that mediate the conflict-cooperation relationship and encompasses the conditions that structure and influence the scenario in which the teams interact, such as fear of conflict, representation of different professions and institutional support, where it distinguishes the role of communication for cooperation.^(35,36)

The experiential contextual domain is determined by factors such as gender conflicts, availability of material and financial resources, ethnic and cultural diversity, institutional, local or national political will determined by the political, social, cultural and environmental landscape in which the health team operates.^(37,38)

Health system crises and the need for improvement in health service delivery can be resolved through the implementation of interprofessional collaboration structured and systematized as an institutional policy from the ministries of health to the grassroots and service delivery units, with the participation of highly competent and integrated interprofessional teams.⁽³⁹⁾

The authors consider that the core of comprehensive health care is composed of medical and nursing personnel, and other health professionals are also integrated with full prerogatives; but it is not always possible to articulate and integrate knowledge and actions in a joint manner for different reasons that hinder this, such as entropic environments, work styles centered on interprofessionalism and limited to their scope of action with predominance of hierarchies and formal or opinion-based leaderships.

Other factors that hinder the integration, coordination and fusion of the knowledge and procedures of all the professions involved in the health care of a person, family or community include: relational dysfunction in care processes, hegemonic tendencies, overvaluation of professional identity, cultural differences and dissimilar academic backgrounds.⁽⁴⁰⁾ Other challenges include tyrannical team leadership, anachronistic hierarchies, traditions and the predominant organizational culture.

Currently, researchers consider that the individual will and predisposition of each professional is the main determinant for interprofessional collaboration and not the undergraduate and postgraduate training of this through interprofessional education (IE) as a transversal competence for the agile and pertinent performance of every health professional.⁽⁴¹⁾

The fusion in thinking and doing of the members of a health team for effective collaboration requires the creation of contextualized and experiential socio-professional and humanistic competencies based on a normative ethical approach to IE management.⁽⁴²⁾

The authors consider that undergraduate and postgraduate IE guarantees a ICP through organization, coordination and cooperation among professionals, which should be based on premises, characteristics and dimensions in which it is sustained and developed to achieve quality comprehensive medical care (Figure 1).



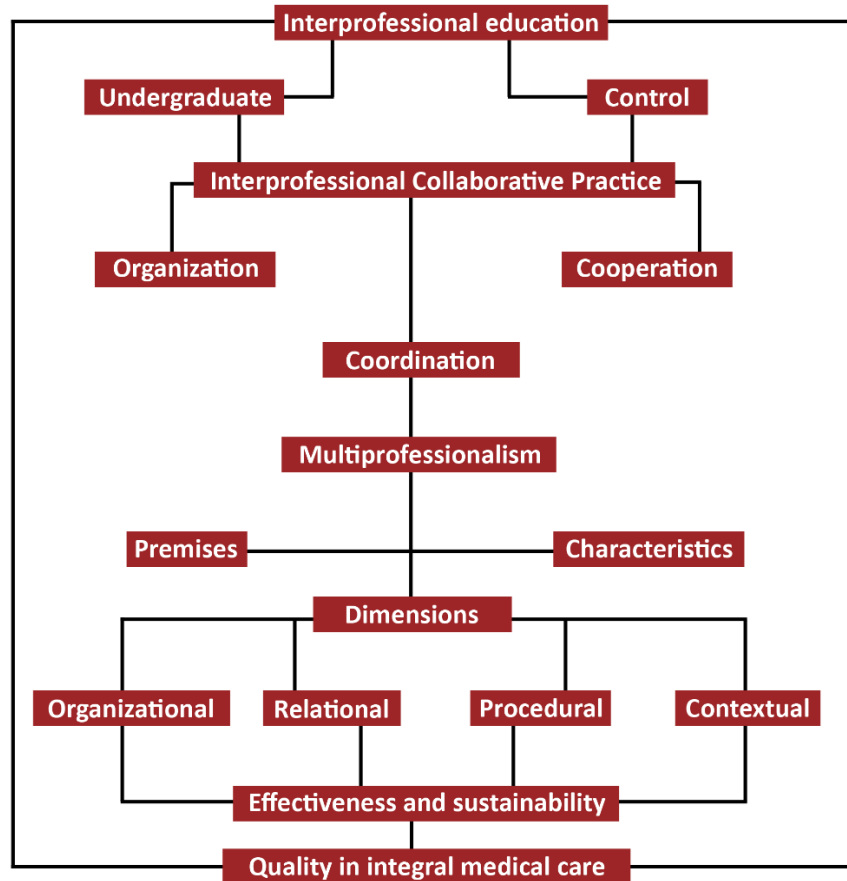


Fig. 1. The Interprofessional education as a foundation for interprofessional collaborative practice that underpins quality in comprehensive health care.

FINAL CONSIDERATIONS

The evolution of health care needs demands assuming new paradigms in the training of health care professionals in order to achieve a transformation in undergraduate and postgraduate training that contributes to the achievement of interprofessional education contextualized as a socioprofessional competence, so as to ensure an effective and sustainable interprofessional collaborative practice in Comprehensive Health Care.

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Conflict of interest:

The authors declare no conflicts of interest.

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Funding:

The authors did not receive funding for the development of the present research.

