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Interprofessional education: training for healthcare professionals for teamwork focusing on users

EDUCAÇÃO INTERPROFISSIONAL: FORMAÇÃO DE PROFISSIONAIS DE SAÚDE PARA O TRABALHO EM EQUIPE COM FOCO NOS USUÁRIOS

EDUCACIÓN INTERPROFESIONAL: LA FORMACIÓN DE PROFESIONALES DE LA SALUD PARA EL TRABAJO EN EQUIPO CON ENFOQUE EN LOS USUARIOS

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ABSTRACT

The theoretical constructs of interprofessional education (IPE) are analyzed based on two reviews of the literature, taking the context of training for healthcare professionals in Brazil into consideration. Three types of training are identified: uniprofessional, multiprofessional and interprofessional, with predominance of the first type. The first occurs among students of the same profession, in isolation; the second occurs among students of two or more professions, in parallel without interaction; and the third involves shared learning, with interaction between students and/or professionals from different fields. The distinction between interprofessionalism and interdisciplinarity is highlighted: these refer to integration, respectively, of professional practices and disciplines or fields of knowledge. Through the analysis presented, it is concluded that in the Brazilian context, IPE (the basis for collaborative teamwork) is still limited to some recent initiatives, which deserve to be investigated.

DESCRIPTORS

Health personnel
Education, continuing
Interprofessional relations
Patient care team
Cooperative behavior

RESUMO

São analisados os constructos teóricos da educação interprofissional com base em duas revisões de literatura, considerado o contexto da formação dos profissionais de saúde no Brasil. Identificam-se três tipos de formação: uniprofissional, multiprofissional e interprofissional, com predomínio da primeira, que ocorre entre estudantes de uma mesma profissão de forma isolada; a segunda, entre estudantes de duas ou mais profissões de forma paralela, sem haver interação, e na terceira há aprendizagem compartilhada, com interação entre estudantes e/ou profissionais de diferentes áreas. Destaca-se a distinção entre interprofissionalidade e interdisciplinaridade, referidas, respectivamente, como a integração das práticas profissionais e das disciplinas ou áreas de conhecimento. Mediante a análise apresentada, conclui-se que no contexto brasileiro, a educação interprofissional, base para o trabalho em equipe colaborativo, ainda está restrita a iniciativas recentes, que merecem estudo.

DESCRITORES

Pessoal de saúde
Educação continuada
Relações interprofissionais
Equipe de assistência ao paciente
Comportamento cooperativo

RESUMEN

Fueron analizados los constructos teóricos de la educación interprofesional basado en dos revisiones de la literatura, considerando el contexto de la formación de los profesionales de salud en Brasil. Se identificaron tres tipos de formación: uniprofesional, multiprofesional e interprofesional, con predominio de la primera, que se produce entre los estudiantes de una misma profesión de forma aislada; la segunda, entre los estudiantes de dos o más profesiones de forma paralela, sin existir interacción y, en la tercera existe un aprendizaje compartido, con interacción entre los estudiantes y/o profesionales de diferentes áreas. Se destaca la diferencia entre interprofesionalidad e interdisciplinariedad referidas, respectivamente, como la integración de las prácticas profesionales y de las disciplinas o áreas de conocimiento. A partir del análisis se concluye que en el contexto brasileño, la educación interprofesional base para el trabajo en equipo colaborativo, todavía está restringido a iniciativas recientes, que merecen estudio.

DESCRIPTORES

Personal de salud
Educación continua
Relaciones interprofesionales
Grupo de atención al paciente
Conducta cooperativa

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INTRODUCTION

Interprofessional education (IPE) and interprofessional practice (IPP) are emerging themes within the field of healthcare worldwide, as shown by two recent published papers that indicated that IPE directed towards teamwork was a component of a broader reform of the professional training and healthcare model[1-2]. In the present article, the theoretical constructs of IPE are analyzed and their differences in relation to interdisciplinarity are highlighted. The models currently existing and the necessary changes to training for healthcare professionals in Brazil are covered.

Changes to epidemiological profiles through increased life expectancy and increased incidence of chronic health conditions that require prolonged follow-up have introduced the need for an integrated approach that takes into account the multiple dimensions of the healthcare needs of service users and the general population[2]. This has made it fundamental and critical to have good-quality communication and collaboration between the different professionals involved in such care, for healthcare services to be able to resolve problems and provide effective care[3].

The tendency for professionals within each field to work separately and independently from the others reflects their long and intense training, which was also done in isolation and circumscribed by their specific fields of activity. However, authors[4] have advocated that the opportunities offered by IPE contribute towards training healthcare professionals who are better prepared to act together in teams, in which collaboration and recognition of the interdependence of different fields predominates over competition and fragmentation. These authors indicate that the debate on IPE and IPP should always take place in an integrated manner.

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IPP in healthcare services has been recognized as a component of service organization. It allows problems to be posed and, consequently, makes it possible to shift from fragmentation towards joined-up and integrated healthcare actions. In turn, this movement tends to increase the ability of healthcare services to resolve problems and improve the quality of care, because it makes it possible to avoid omission or duplication of care, avoid unnecessary waiting and postponement and expand and improve communication among professionals. In addition, it recognizes the specific contributions from each field and their overlapping boundaries, with incorporation of flexibility into these professional roles.

Professionals with different training within healthcare who are willing to move between specific fields of training link their specific knowledge with that of other people in the work organization. This makes it possible both to share the actions and to delegate activities to other professionals, in the form of collaborative practice. This flexibility allows resources to be optimized and expands the recognition and attention given to service users' specific healthcare needs and the general population's needs, in each locality and service. Such needs are heterogenous and complex, and have to be met in an integrated manner, rather than just focused on meeting spontaneous demand[1].

Studies have debated IPP, but the abovementioned WHO report on IPE identifies that the activities developed on this topic have mostly been of short duration and non-systematized. Other points noted are that teaching groups with specific capacities to develop this are rare, and these initiatives are only infrequently evaluated[1].

Since 2005, published papers produced worldwide, especially by CAIPE (Centre for the Advancement of Interprofessional Education) in the United Kingdom and by the Cochrane Library have sought to construct reference points on this subject. Within this scenario, it is appropriate to expand the studies on IPE in Brazil, given that strengthening this and IPP require development of rigorous investigations involving quantitative and qualitative methodologies, among other investments[3]. In this respect, the present paper aims to analyze the theoretical constructs of IPE, in light of criticisms of the existing models for training healthcare professionals, and provide an impetus for future research. Through this discussion, we seek to contribute towards boosting IPE initiatives in undergraduate healthcare courses, so as to engender collaborative practices in the day-to-day activities of healthcare services.

This paper aims to identify, describe and discuss this complex topic, identify the multiplicity of concepts involved and explain their relationship to interdisciplinarity. For this, it firstly presents the results from critical reading of the review of the literature of IPE by CAIPE, based on 107 articles, which gave rise to two books[4-5] and the systematic review based on Cochrane Library developed by Reeves et al.[6]. This review included six studies and concluded that definition and effectiveness of IPE remain unclear because of the methodological limitations of existing research. Following this, the paper presents the existing models for training healthcare professionals in Brazil, with the aim of putting our reflections on IPE into context.

Theoretical constructs of IPE

The debate on IPE is recent and a large portion of the literature have taken the definition for IPE produced by CAIPE, in 1997, in the United Kingdom, namely, *occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care*[4]. Authors[4]

also presented a definition for mu*ltiprofessional education:* occasions when two or more professions learn side by side.

At first sight, the boundaries between IPE and multiprofessional and uniprofessional education seem to be clear. IPE and multiprofessional education offer the possibility of shared learning, achieved interactively between among students or professions within different fields. However, putting them into practice may present difficulties and give rise to doubts and tensions. This is because of the tendency to recreate traditional education and because of resistance to change, but also because it is necessary to maintain uniprofessional teaching so that students can learn the specific knowledge and skills for each professional field and its respective set of disciplines.

This point is important, since the literature on teamworking and collaborative practice has shown that joining together the actions and collaborations of professionals from different fields requires maintenance of the specific features of each field[7-8] just as interdisciplinarity requires disciplinarity[9].

Uniprofessional training is taken to be the process in which educational activities occur only among students within the same profession, in isolation from other professions. Professional education is a process of socialization in which students start to create an identity with the chosen profession and its values, culture, roles and specific knowledge. When the training is configured only as uniprofessional, there is no interaction with students from other professions, which contributes towards lack of knowledge about the roles and responsibilities of other healthcare professions, and towards formation of stereotypes[4,6].

Conceptually, the difference between IPE and multiprofessional education is that in the first case, students learn interactively about the roles, knowledge and competencies of other professions, while in the second case, the educational activities take place among students of two or more professions together, in parallel, but not necessarily with any interaction between them[4,6].

Teaching conducted in the form of IPE can be expected to provide the grounding needed to strengthen teamworking, in the light of the transformation of healthcare practices towards interprofessional integration and collaboration focused on the healthcare needs of service users and the general population. Barr et al.[4] systematized the so-called *essence* of IPE into three overlapping focus: preparation of individuals for collaboration, stimulation of collaboration within the group and improvement of services and quality of care.

Thus, IPE is complementary to uniprofessional and/or multiprofessional education, for developing planned curricular activities, i.e. activities that form part of the curriculum of healthcare courses. Thus, uniprofessional and multiprofessional education need to be reviewed from an interprofessional perspective, in order to promote collaborative practice in healthcare teamwork[4].

The literature provides a variety of terms that qualify teamwork and the respective education of healthcare workers. These definitions have in common references to different degrees of interaction, some relating to professionals, with a focus on practices within healthcare services, while others relate to disciplines, with a focus on linkage within the scope of teaching and research. Terms with the prefixes uni, multi, pluri, inter and trans are used, usually imprecisely, accompanied by suffixes representing the discipline or profession.

It is recognized that healthcare training is mostly based on the model of teaching through disciplines. Discussion of interaction between disciplines began in Brazil in the 1970, through the studies[10-11]. In their papers, these authors focused on the internal requirements of interactions between science disciplines and research, without any concern for describing or conceptualizing the interactions between professional practices in the day-to-day activities of services such as in the healthcare sector, which is the scenario within which interprofessional practice and education examined in the present reflection is developed.

Emphasized that interdisciplinary practices were a means for making it easier to face the knowledge and science crisis, especially with regard to knowledge fragmentation[10-11]. In this sense, IPE within healthcare can be understood as a means of challenging the usual context of training, in order to find new responses to new problems: the complexity of care needs, the fragmentation of care provided by different professional specialties and the imperative to improve traditional teaching schemes.

Study[10] defined *discipline* as synonymous with sciences, although this term is usually used to designate *teaching of a science*, while science usually designates a research activity. This author described the different levels of contact between disciplines (multidisciplinarity, pluridisciplinarity, interdisciplinarity and transdisciplinarity) and stated that in multidisciplinarity, there was no cooperation between the disciplines; in pluridisciplinarity, there was cooperation between the disciplines, but without coordination; in interdisciplinarity, there was an axiom common to a group of connected disciplines that was coordinated by one of them, which occupied a hierarchically higher position; and finally, in transdisciplinarity, there was coordination between all disciplines, based on a general axiom[10].

Subsequently, based on the work of Hilton Japiassu[10], Iribarry[9] transposed the use of the terms multi, pluri, inter and transdisciplinary for analysis of healthcare teamwork, and conceptually defined the team arrangement according to the interaction between the disciplines in the work, considering each profession as a different discipline.

It should be noted that author[9] dealt with transdisciplinarity and teamworking without making any distinction between the integration plans of the disciplines and areas of scientific knowledge and the professional practices in day-to-day work, in which agents carry out actions based on technical-scientific knowledge, also known as operating

knowledge or technological knowledge, through a given context and a given work condition.

It is important to note that, according to authors who have investigated this topic[9-13] transdisciplinarity relates to interaction between disciplines, i.e. it corresponds to dialogue and cooperation between different fields of knowledge, starting from recognition of different positions in relation to the same complex subject.

Although specificity can be recognized in the concept of transdisciplinarity, which relates to integration of fields of knowledge, Iribarry[9] reported that those who sought it regarded teamworking as a necessity. To formulate transdisciplinarity, it is vital to bring together the different professionals into teamwork. Another study on interdisciplinary work within healthcare also pointed out that teamworking skills consisted of knowing how to do what was needed to develop competencies for interdisciplinary healthcare actions[13]. Thus, teamworking is required for ensuring interdisciplinary action.

In the present theoretical reflections, the distinction between interdisciplinarity and interprofessionalism is highlighted. The latter relates to the sphere of professional practice in which healthcare teamwork is developed, while the former refers to the sphere of disciplines, sciences or fields of knowledge. Study[7] also analyzed the difference between the planes of disciplines and professions and pointed out that *the ahistorical concept of interdisciplinarity that predominates in Brazil would lead to erroneous notions*, and especially an idealized search for totality, condemnation of specialization and the mistake of believing that partnership or friendship between individuals would be enough to overcome the fragmentation of actions and fields of knowledge.

Nonetheless, studies on teamworking and interprofessional collaboration have identified that there is a lack of precise definition for terms. This means that a large proportion of the academic production presents low consistency, even though one of the prerequisites for rigorous production of theory and/or assessments is clear definition of the terminology[7,14].

It should be emphasized that even if training for healthcare professionals is provided in uniprofessional form, it will always be interdisciplinary (even if only implicitly, as pointed out)[4] because of the recognition that the health-disease process involves a variety of determinants that extrapolate the anatomopathological limits and thus conjugate a wide range of disciplines in each of the professional areas. Hence, professional education within healthcare may be interdisciplinary on the basis of the interaction and integration of different disciplines in each field, and in this manner, not interprofessional.

Thus, both the recent literature on professional healthcare training and the literature dedicated to teamworking within healthcare emphasize the need to go beyond teaching and interdisciplinary actions to IPE in order to foster collaborative IPP. The literature indicates that both IPE and IPP, with their characteristic of intense communication and interaction among professionals and students from different fields, contribute towards increasing the ability of healthcare services to resolve problems and improve quality of care[1-2,4-5].

With the aim of portraying the current scenario and suggesting possible repercussions on teaching, Barr et al.[4] described the range of characteristics that permeate IPE proposals. Some isolated initiatives were presented, and others that were integrated with curricula. There were long and short-duration proposals, with general or specific themes (such as the specific purpose of palliative care). They could take place within healthcare services or in teaching institutions (at undergraduate or postgraduate level).

Existing models for professional training in the field of healthcare in Brazil

It is interesting to observe that studies[2,4-5] pointed out that IPE is a product of the relationship between the educational and healthcare systems, since it operates at the interface between the two systems. Thus, it is important to put the discussion on the theoretical constructs of IPE into the Brazilian context of healthcare professional training, which is mostly uniprofessional and governed by the model of teaching through disciplines and by biomedical rationality. Emphasis on the biological dimension and on the anatomopathological substrate of the health-disease process has been reported[15].

This training model corresponds, on the one hand, to a network of healthcare services and management that is organized around interventions by a medical professional, with other professionals acting as auxiliaries for the medical work[16]. However, it is known that education and practices that are directed in this manner give rise to intense fragmentation of care and professional corporatism, such that future healthcare professionals are trained to gain mastery of technical-scientific knowledge, which often does not encompass interdisciplinary, communicative and interactive spheres.

On the other hand, initiatives in Brazil towards changing healthcare professionals' training can be highlighted. These have involved government bodies and international cooperation, along with the public healthcare service network and public universities[17-18].

The Pan-American Health Organization (PAHO), which is an international cooperation body, first pointed to the need for changes to the standards of healthcare human resource training in the Americas in the 1960s. The first legal instrument for technical cooperation between PAHO and Brazil dates from 1973. This envisaged greater integration between the training system for healthcare professionals and the service network of the healthcare system, which would be used as a pedagogical resource, stimulus for

interprofessional integration and means of developing teacher-care integration[19].

In 1980s, the experiences that had accumulated particularly in the fields of medical and nursing education gave rise to an important proposal for changes to the training for healthcare professionals: the UNI program (acronym for a new initiative in education for healthcare professionals, for uniting the community).[a] The program was sponsored in Brazil by the Kellogg Foundation and involved six projects, in the cities of Londrina, Marília, Botucatu, Brasília, Salvador and Natal[15].

Linkage between healthcare services, training institutions and the community was the most important innovation of the UNI program. The main characteristics of the program were education for healthcare professionals aimed towards the population's health problems, stimulation of interdisciplinary teaching and problem-based learning. From this perspective, multiprofessional teamworking should serve as a model for students and the community organization, to promote self-management and taking responsibility[15].

In contrast to the hegemonic approach of teacher-centered education, the UNI program highlighted a critical-reflective educational process in order to stimulate democratization of knowledge through posing problems about real situations, with active participation from students. Thus, the debate around the pedagogical model for the curricula was redirected based on interdisciplinarity, the concept of multiprofessional work and the specific features of practices within each profession, in order to overcome fragmentation of knowledge[15]. These changes came close to the concept of IPE analyzed above, but were still concentrated on interdisciplinary education and multiprofessional action.

Several Brazilian studies have stressed the importance of integration between disciplines within the scope of healthcare courses, through knowledge that is lived and experienced, as a possibility for training professionals who would be more committed and better prepared to meet the population's healthcare needs[20]. However, as pointed out above, emphasis on interdisciplinarity may promote integration of disciplines within the same professional field, which represents an advance in relation to the tendency towards fragmentation, but without covering IPE in a complementary manner for IPP.

Within the field of interaction between professionals who have already been trained, one milestone was the Brazilian policy of *Educação Permanente em Saúde* (EPS; continuing health education), which was instituted through Ordinance GM/MS 198/04. Together with the UNI program, this document recommends multiprofessional linkage among representatives from universities, communities/users, healthcare service workers and healthcare managers, in what study[21] proposed under the name of the Brazilian training rectangle. EPS has the objective of constituting a teaching and learning network within the work of the Brazilian healthcare system (SUS), thereby redirecting it towards the needs of the general population and users as citizens with rights.

In 2004, with EPS and comprehensiveness of healthcare as the guiding strands, the National Education Forum for Healthcare Professions (FNEPAS) was created with the objective of changing undergraduate healthcare courses in Brazil. The distinctive contribution of this body is that within FNEPAS, the 14 healthcare professions should develop discussions about multiprofessional and interprofessional training through exchange of experiences between the various undergraduate courses[22].

Another two recent IPE initiatives in Brazil should be mentioned: *multiprofessional healthcare residence* and the PRO)-Saúde (PRO-Health, National Program for Redirection of Professional Healthcare Training) and PET-Saúde (PET-Health, Education Program for Healthcare Work) project, both within the sphere of the Ministry of Health[17].

The history of *residence*, as a broad-sense postgraduate course in Brazil, began in 1976 with Residence in Community Medicine, which soon became multiprofessional. However, this trend did not consolidate, given that in 1977 medical residence was formally constituted within a scenario in which recognition was given to the powerful medical-industrial complex, the primacy of the concept of health as the absence of disease, the primacy of the concept of disease as a strictly biological phenomenon and the consolidation of specialized professional training[18].

The debate on *multiprofessional residence* was resumed at the end of the 1990s, when the Family Health Program was implemented as a primary healthcare model for redirecting Brazil's healthcare service network, along with the Brazilian Sanitary Reform Movement, which advocated preservation of the specific feature of each area and recognition of common areas for professional action, guided by values such as comprehensive healthcare and health promotion.

Nonetheless, only in 2005 the MEC/MS Interministerial Ordinance N. 2.117 (of the Ministries of Education and Health) formally instituted multiprofessional healthcare residence, except within the field of medicine. The contradiction that *multiprofessional* does not include the field of medicine still remains, as does the inequality between the two types of residence (medical and multiprofessional). Although they have similar workloads, corresponding to two years of in-service training, medical residence is recognized as a course with two years of training, while multiprofessional residence is recognized as a course with only one year of training[18].

[a] In all, the UNI program involved 23 projects in 11 countries (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Nicaragua, Peru, Uruguay and Venezuela), with participation from 103 undergraduate courses at 23 universities and 600 community organizations.

With the same perspective, through a partnership between the Ministries of Health and Education and with support from the Pan-American Health Organization, the Department of Healthcare Work and Education Management (SGTES) instituted the Pro-Health by means of MEC/MS Interministerial Ordinance No. 2.102, of November 3, 2005[17].

Pro-Health was created with the aims of achieving integration between teaching and services, and redirection of professional training towards a comprehensive approach to the health-disease process, with emphasis on primary care, in order to transform service provision for the Brazilian population. Linkage between higher education institutions and public healthcare services provides additional power to respond to the concrete needs of the general population and service users, through human resource training, knowledge production and service provision, to strengthen SUS[17].

This program provides funding for training projects within all professional healthcare fields, with the aim of promoting changes in the care model and in education, from the perspective of comprehensive healthcare. It includes different strategies for strengthening such actions, such as the PET-Health, which involves healthcare network tutors, healthcare students and teachers, telehealth, professional education, the Training Program for Middle-level Healthcare Professionals (PROFAPS) and the SUS Open University (UNASUS).

The scenario presented here shows that, above all, healthcare training in Brazil is uniprofessional, and that the IPE initiatives in this country are still tentative and mostly relate to multiprofessional actions at undergraduate and broad-sense postgraduate levels, and more recently, to optional extracurricular activities such as PET-Health.

FINAL REMARKS

Analysis of the reviews allowed identify and discuss the multiplicity of concepts of IPE and their relationship to interdisciplinarity. However, this theoretical analysis is limited because was not developed a general inventory of the Brazilian initiatives of IPE.

The literature presents distinct concepts of uniprofessional, multiprofessional and interprofessional education and characterizes the last of these as shared interactive learning among students or professionals in different fields. Thus, IPE is a means of healthcare training that promotes integrated and collaborative teamworking among professionals from different fields, focusing on service users' and the general population's healthcare needs, with the aim of improving the responses of the healthcare services to these needs and the quality of care provided.

Analysis of the constructs show that there is a need to broaden our understanding of this topic and its various concepts, and in particular to deepen the theoretical, conceptual and empirical studies on this topic, in order to consolidate the consensus on IPE and its repercussions on healthcare practices. A need to make a clearer distinction between initiative of interdisciplinarity and interprofessionalism, while recognizing their complementary nature, was also identified.

It was observed that initiatives for changes to professional training and practice have highlighted interdisciplinary approaches and multiprofessional education and action, without considering the debate and construction from the perspective of IPE, such that this has not yet become a reality within the Brazilian context.

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