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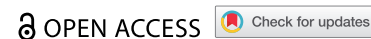


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Interprofessional education in Brazilian nursing undergraduate course syllabi

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ABSTRACT

The objective of this study was to analyze aspects related to interprofessional education in healthcare through the assessment of the syllabi of undergraduate nursing programs in Brazil. An observational, descriptive study was conducted in two phases. The first phase involved identification of programs, and the second phase involved documental analysis of the syllabi through a script created for this purpose. One thousand two hundred and twenty nursing undergraduate programs were identified; 229 were included in the sample for the document analysis. In 2.6% of the programs, the term “interprofessional” was identified in the purpose of the programs. Seventeen percent of the programs valued interprofessional education, and 8% assessed interprofessional learning. Recognizing (9.2%) and respecting (6.6%) the attributes and roles of different professionals were the least identified interprofessional values in the syllabi. Interprofessional education was not institutionalized/stated in the documents, even though the documents indicated use of interprofessional relationships in training scenarios, especially in primary care, and in activities not included in the formal curriculum.

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Introduction

Interprofessional education (IPE) and training face barriers worldwide (World Health Organization [WHO], 2020a). Work conflicts arise from the lack of awareness of common professional roles of team members; in addition, there are competition and power issues related to a hierarchy among professionals. In Brazilian health policies, these conflicts hinder comprehensive health care because care requires the articulation of knowledge, collaboration among professionals, and nonhierarchical environments that provide opportunities for discussion among healthcare professionals, patients, and their families (Peduzzi et al., 2020).

Knowledge, skills, and attitudes toward teamwork, collaboration, and nonhierarchical relationships must be worked on in initial training courses and continued in professional life through continuing education in health, from the perspective of knowledge integration, autonomy, and collective construction with the inclusion of patients in the processes of change (Ogata et al., 2021). Therefore, IPE, understood as an approach for providing educational experiences, offers space for the development of essential competencies for efficient teamwork and collaboration based on a paradigm shift from a fragmented healthcare approach to a team approach centered on the patient (Pálsdóttir et al., 2016).

Background

Interprofessional collaboration has been associated with the best development of each of the healthcare team members’

abilities (Reeves et al., 2010; Suter et al., 2012); and, from the perspective of a change in service model, interprofessional collaboration has been associated with better care results (Edwards et al., 2019). Shared decision-making, guided by integration and effective communication, allows for a better understanding of evidence and expected results, favors comprehension and trust in the user, and increases adherence to treatment (Nandiwada & Kormos, 2018). In addition, interprofessional collaboration is related to cost and waste reduction of inefficient teams (Pálsdóttir et al., 2016) and could provide opportunities to increase the diversity of the health care workforce (WHO, 2020a).

The health care workforce includes nursing professionals, numbering 27.9 million worldwide, representing 59% of the workforce; and, in many cases, they are the first and only professional care accessible to the population in some countries or regions. In the Americas, there are 8.4 million nursing professionals, representing 56% of health care workforce, which demonstrates the need to strengthen and optimize the training of this workforce (WHO, 2020b). In Latin America and the Caribbean, interprofessional curricula and teaching-learning strategies in undergraduate nursing courses are recent additions (Cassiani et al., 2017). IPE is considered an important strategy to achieve transformative education by enabling learning among different professionals, affecting collaboration, promoting teamwork and the appropriate and safe use of health resources (Cassiani et al., 2017). In a survey of 246

nursing schools in the Region of the Americas, IPE as a teaching/learning strategy scored low (Cassiani et al., 2017). A WHO report highlighted that globally the Region of the Americas (including United States, Canada, Latin American countries, and the Caribbean) has the lowest rate of interprofessional nursing education standards, reported by 49% of its countries, while the global rate is 67%, most notably in Europe, with 87% (WHO, 2020b).

The WHO “Global Strategic Directions for Nursing and Midwifery 2021–2025” highlighted education as a strategic area for the advancement of nursing, emphasizing the requirement to design competency-based educational programs that are aligned with the health needs of the population and capable of providing IPE opportunities, to adequately prepare students for collaborative work in service delivery settings (WHO, 2021). Universities that implement IPE have made students aware of it by including it in their course syllabi (Congdon, 2016). Syllabi, in the context of IPE, are an important tool for teaching and coordinating (Congdon, 2016), and analyzing curricular gaps within them is a potential tool to investigate IPE in undergraduate health courses.

Historically, in Brazil, schools/programs have mobilized for the implementation of changes in the process of training nurses, and syllabi have undergone changes related to the National Curriculum Guidelines (DCN, in the Portuguese acronym). The main changes were focused on: the construction and implementation of innovative programs, adoption of active methodologies, implementation of integrated curricula, development of actions of theory/practice integration, implementation of supervised curricular internships, interdisciplinary activities, and teaching/service integration, showing how the DCN are expressed in programs (Fernandes, 2006). Such movement may be understood as a search for an education process that meets the health care needs of the population, toward interprofessional thinking, adhering to active methodologies, and having students as the subjects of their education process (Fernandes & Rebouças, 2013).

Interprofessional initiatives in nursing are extremely valuable and can influence students’ perceptions of the role and significance of interaction between different health professions (McMillan et al., 2021). The benefits of IPE have been reported by students themselves as a facilitation factor for development of specific competences, such as interprofessional communication, care centered on the patient, family, and community; team working dynamics; role clarity; shared leadership; and conflict management (McMillan et al., 2021; Murdoch et al., 2017). A baseline study to investigate syllabi could provide a new perspective on IPE initiatives across the country. Despite the benefits and efforts of IPE, health care professional education continues to follow the uniprofessional model, as each course teaches its students separately and they, when in professional practice, face the challenge of working in teams and collaborating with each other (Costa et al., 2014).

The development of competencies for interprofessional work requires investment in curricular design (Barr, 1998). Nursing education programs must ensure effective student learning and meet quality standards and health care needs (WHO, 2021). Undergraduate programs should have robust syllabi that address content, accreditation mechanisms, clinical

practice, faculty qualifications, and IPE (WHO, 2020b). Thus, the analysis of syllabi is relevant in the context of the adequacy of educational programs to the guidelines, as well as to understand how nursing education projects appropriate content and educational practices that favor collaborative and interprofessional practice. Therefore, to identify aspects making IPE harder or easier, we analyzed aspects related to IPE in health care, through the assessment of the syllabi of undergraduate nursing programs in Brazil.

Methods

An observational, descriptive study was developed in two phases, aimed at analyzing pedagogical proposals and identifying interprofessional actions. In the first phase we surveyed active programs and identified terms relevant to the theme of this study, and the second phase was for document analysis of the syllabi.

Phase I

The number of nursing schools with active programs was surveyed through e-MEC, an electronic system for the follow-up of processes regulating higher education in Brazil, by the Ministry of Education and Culture (Brasil. Ministério da Educação, 2019), and the website of the National Institute of Educational Studies and Research Anísio Teixeira (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [INEP], 2019). The searches were conducted in September 2019, and 1,304 programs were identified. Inclusion criteria were: educational institutions that conferred the title of “nurse” according to the Law of Professional Exercise. Exclusion criteria were: programs with titles/names other than “Nursing,” such as Gerontology and Obstetrics, and those that were inactive.

After applying the inclusion and exclusion criteria, 1,220 eligible programs were identified, for which a search was conducted in the respective syllabi or other open access documents on the websites of the schools/programs. This presented information on the course curriculum, allowing the identification of the terms: interdisciplinary, interprofessional, multiprofessional, collaborative training, collaborative work, and teamwork. It is important to point out the meanings of some key terms used in this study, which are presented below.

- Interdisciplinarity/Interdisciplinary “is an approach like interprofessional teamwork but differs as the team members are composed of individuals from different discipline” (Journal of Interprofessional Care, n.d.).
- Multiprofessionality/Multiprofessional teamwork “is an approach where team members work alongside one another: in other words, parallel rather than interactive work. These types of teams are composed of different health and social care professions” (Journal of Interprofessional Care, n.d.).
- Interprofessionality/Interprofessional collaboration “involves different health and social care professions who regularly come together to negotiate and agree how to solve complex care problems or provide services. It

differs from interprofessional teamwork as colleagues do not share a team identity and work together in a less integrated and interdependent manner” (Journal of Interprofessional Care, [n.d.](#)). It has been associated with the development of each of the health care team members’ best abilities (Reeves et al., 2010; Suter et al., 2012). Shared decision-making, guided by integration and efficient communication, allows for a better understanding of evidences and expected results, favors comprehension and trust in the user, and increases adherence to treatment (Nandiwada & Kormos, 2018). In addition, interprofessional collaboration is related to cost and waste reduction of inefficient teams (Pálsdóttir et al., 2016) and could provide opportunities to increase the health care workforce (WHO, 2020a).

The search for the listed terms was executed from October 2019 to February 2020, by 14 evaluators, using a document developed with Google Forms. A total of 317 programs were excluded due to unavailability of public access to documents and information, leaving 903 programs to be analyzed.

Phase II

Using the analysis from Phase I, a sample was selected relative to the upper quartile of the distribution of terms among the population of programs, whose documents had three or more terms of interest ($n = 220$) and courses where the terms “interprofessional” and/or “collaborative practice” were identified ($n = 11$), producing a sample of 231 programs, which were analyzed in Phase II. It is important to highlight that, among the 903 syllabi analyzed, all those that mentioned “Interprofessional/Interprofessionality” and “Collaborative placement/Collaborative work” were included, as well as the syllabi that mentioned other terms that are similar to the concept of interprofessional. Two programs were excluded because of a lack of data and documents for analysis, thus, the final sample had 229 programs. The number of programs is different in the two phases because of events that occurred between the development of phase 1 and 2, as presented in [Figures 1 and 2](#).

Analysis of documents presenting information about the program from the sample of schools was performed; authors used a tool to analyze the syllabi adapted from Barr (2003) and translated by Miranda and contributors (2015). The tool for data collection had 36 items, with fields for program characterization, questions regarding goals and purposes of the

program; integration of learning and interprofessional values; theoretical references; adherence to evidence-based practices and interactive learning methods; engagement and representation of other professionals; users and care providers; and processes for assessing learning and the course.

In the analysis of the program documents, based on the items provided in the tool, the researchers were asked to report whether the program presented indications and elements including interprofessional aspects. In addition, the researchers recorded their opinions, perceptions, and analysis regarding the course, including their relationship with the object of study. A pilot test of the tool was conducted and applied to 71 programs from the sample, with a subsequent consensus meeting of researchers and adjustments to the tool. Data were collected by a group of 14 researchers, using Google Forms from November 2020 through April 2021.

Data analysis

The obtained records were edited in a dataset using Microsoft Excel spreadsheet and exported to IBM SPSS Statistics for Windows version 19.0. Descriptive statistics were used to characterize the population and sample. The data were compared with references to the interprofessional approach in national and international literature.

Ethical aspects

The recommendations of National Health Council Resolution no. 466/2012 were compiled. The study was analyzed and approved by the Research Ethics Committee of Ribeirão Preto College of Nursing at University of São Paulo, under CAAE: 27848320.0.0000.5393.

Results

A total of 1,220 programs were considered eligible for Phase I, of which 1,211 were face-to-face and 9 were distance learning programs. The southeast region had the highest percentage of programs (39.7%), followed by the northeast (28.4%), south (1.36%), central west (10.90%), and north (7.62%). The analysis of documents from 903 programs indicated that interdisciplinary/interdisciplinarity were the terms with the highest frequency (34.8%), followed by multiprofessional (29.3%), and teamwork (29.6%).

In the document analysis conducted in Phase II, syllabi were identified for 73.8% of the programs and were considered in addition to other documents presenting information on the

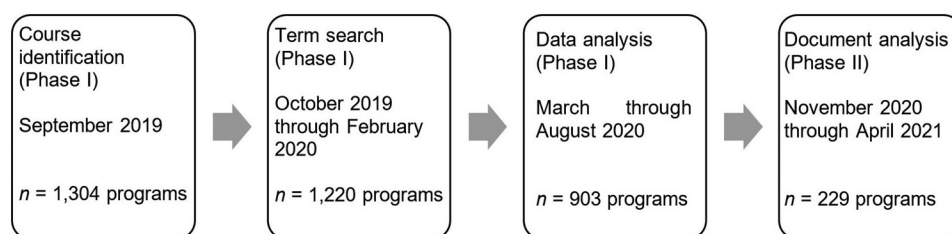


Figure 1. Flowchart of data collection and analysis.

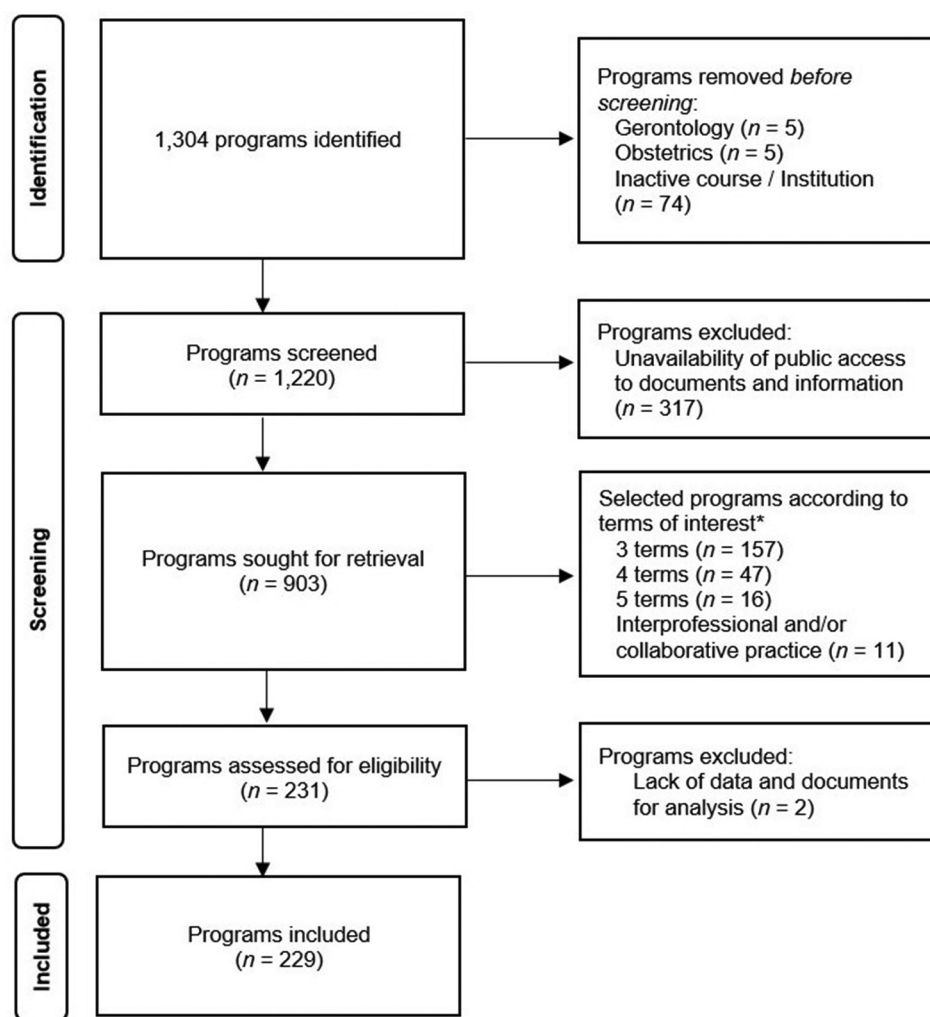


Figure 2. Flowchart of programs selection.

programs. A variety of document types were identified, which occasionally were incomplete, not updated or did not present terms that characterized interprofessional collaboration.

For the purposes stated in the programs, the terms with the lowest occurrence were “Collaborative practice” (0.4%) and “Interprofessional” (2.6%); the most frequent term was “Multiprofessional,” present in 35.8% of the programs, as shown in Table 1. When observing the programs method of collaboration, in situations such as the sharing of knowledge and decision-making, the goals and objectives contribute to improving the quality of care in 42.2% of the programs.

In 48.5% of the programs, results revealed the possibility of favoring the development of one or more collaborative competencies in nursing education, such as interprofessional communication, care centered on the patient, family, and community, teamwork dynamics, role clarity, shared

leadership, and conflict management. The development of collaborative competencies through patient-, family-, and community-centered care was reported by 6.1% of the programs. In addition, 38% of the programs were organized to provide integration with other professions. Integration is the organization of course/curriculum around significant problems and issues (10.5%), while a transversal approach extends over several years of undergraduate work and it is less frequent in courses (2.6%) and curricula (0.4%; Table 2).

Educational concept and its organization, stated through theoretical references adhered to by the program, were identified in 40.2% of the programs. Evidence-based adherence was valued in 45% of the programs. Regarding adherence to teaching-learning methods and strategies that allow interactive

Table 1. Terms identified in the program purpose (n = 229).

Terms	Yes (n/%)	No (n/%)
Interdisciplinary/Interdisciplinarity	79 (34.5)	150 (65.5)
Interprofessional/Interprofessionality	6 (2.6)	223 (97.4)
Multiprofessional	82 (35.8)	147 (64.2)
Collaborative placement/Collaborative work	1 (0.4)	228 (99.6)
Teamwork	33 (14.4)	196 (85.6)

Table 2. Program organization (n = 229).

Program organization	Yes (n/%)	No (n/%)
Integrated curriculum	20 (8.7)	209 (91.3)
Transversal curriculum	01 (0.4)	228 (99.6)
Integrated courses	23 (10.0)	206 (90.0)
Transversal courses	6 (2.6)	223 (97.4)
Division in great areas	24 (10.5)	205 (89.5)
Division in modules	15 (6.6)	214 (93.4)
Curricular components	03 (1.3)	226 (98.7)
Integrated components	04 (1.7)	225 (98.3)

Table 3. Teaching-learning methods and strategies giving room to interactive education/training ($n = 229$).

Methods and strategies	Yes (n/%)	No (n/%)
Active methodologies	97 (42.4)	132 (57.6)
Virtual tools	41 (17.9)	188 (82.1)
Small groups	43 (18.8)	186 (81.2)
Round-table discussions	14 (6.1)	215 (93.9)

education/training, active methodologies were present in 42.4% of the programs (Table 3).

In 18.8% of programs, learning occurs in small groups. In only in 2.6% of the programs, in interactive and/or small group activities, the number of diverse participating professionals is balanced, which facilitates optimized learning through IPE. Problemization, as a teaching-learning strategy, in which the student feels the need to learn new knowledge that can help them solve real and meaningful problems (Freire, 2005), was identified by 41.5% of the programs, while the teaching-learning strategy was not presented in 35.4% of the programs. Other professions were represented in 17% of the teaching planning of the nursing program in, and users, care providers, and family members participated in the teaching-learning process in 26.6% of them.

A multiprofessional team internship was identified in 53.3% of the programs, while 24.9% reported interdisciplinary teams, and 5.7% reported interprofessional teams. Regarding assessment, 50% reported making an institutional self-evaluation, and the results of the institutional evaluation were disclosed in 33.2% of the programs. IPE was valued in 17% of the programs, but only 8% of them assessed interprofessional learning. Recognizing (9.2%) and respecting (6.6%) the attributions and roles of different professionals were the least identified interprofessional values in syllabi, while adopting interactive teaching-learning methods was the most frequent (65%; Table 4).

Of the 229 analyzed programs, 52 presented evidence that undergraduate nursing teaching can include interprofessional aspects, which are highlighted as follows. Twelve of them were considered to have approaches to IPE favoring, for example, coexistence with other areas of health such as pharmacy, physiotherapy, and occupational therapy. One of them mentioned two courses about IPE, one being more theoretical and the other practical. However, in these 12 programs there were strategies that can favor IPE, such as working with small groups, problematizing strategies, approaches to transversal themes, valorization of popular knowledge. Another program that had a course called Community Integration that brings together other health programs with community experience, and announces approaches to the community.

Eleven programs presented professor and student experiences in the Brazilian Unified Health Care System (SUS) and/or in the community. Health care services, especially those related to primary health care, deal with complex longitudinal care for people and families, evidencing the need for multiple professions working together to meet health needs. Most nursing programs in Brazil develop activities in the SUS, but the syllabi of these 11 courses explicitly used some terms that were in this research, which indicate consideration for the development work involving cooperation among several professions.

Five programs were identified as approaching IPE by favoring interactive activities with the integration of teachers and optional courses with other programs. Additionally, insertion in health services since the initial years of training was highlighted as a potential for interprofessional practice. Three programs adhere to the interdisciplinary and not to the interprofessional terminology, emphasizing the role of the different professions in health care in their documents.

Six programs presented information that did not allow us to investigate why they used words such as interdisciplinary, teamwork, and multidisciplinary. It is possible that public program documents may adopt “window dressing” terms because they are indicated in the National Curriculum Guidelines (DCNs) or they circulate in academia, but not necessarily with practices that lead to the exercise and reflection of collaborative and interprofessional work. The other 12 programs present curricular flexibility, and students may take courses in other areas of knowledge. Moreover, they also present supervised curricular internships, with possibilities to collaborate with other professionals, and other features.

Discussion

The findings of this baseline study indicate that IPE is not institutionalized/stated in the documents assessed, and its intention proved to be uncertain despite the documents indicating interprofessional relationships in practice scenarios, especially in primary health care, emphasizing activities not included in the formal curriculum.

In Brazil, IPE occurs at an early stage in undergraduate courses, with a greater focus on primary health care services favoring greater dialog between different professionals. Actions favoring IPE have been stimulated by the Brazilian Ministry of Health, for example, by structuring of the Single Therapeutic Project (*Projeto Terapêutico Singular – PTS*), explained in the National Humanization Policy (Rocha & Lucena, 2018). The PTS, considered an important tool aimed at care, with a focus on interventions that meet the health needs of different

Table 4. Interprofessional values identified by the programs ($n = 229$).

Interprofessional values	Yes (n/%)	No (n/%)
Care as per the needs of individuals, families, and communities	127 (55.5)	102 (44.5)
Promote the development of interprofessional competences	26 (11.4)	203 (88.6)
Recognize different professional roles, respecting differences	21 (9.2)	208 (90.8)
Respect specific attributions and the identity of each professional	15 (6.6)	214 (93.4)
Shared learning is complementary to common learning	37 (16.2)	192 (83.8)
Adherence to teaching-learning methods and strategies giving room to interactive education/training	149 (65.0)	80 (35.0)

subjects in their specific territories and social contexts, has been proposed and used as a strategy for the work process of health teams that considers the interdisciplinary and interprofessional perspective (Rocha & Lucena, 2018).

In undergraduate education, it is important to contextualize the instrument that guides the construction of syllabi, the National Curriculum Guidelines for Nursing Courses, and parameters such as flexibility in the organization of the program, principle of comprehensive training, adoption of active methodologies, incorporation of complementary activities, and principles of interdisciplinarity (Brasil. Ministério da Educação, 2001). The DCN for undergraduate health courses represents a legal landmark for articulation between health and education and advocates training for teamwork for integrality and quality of communication between the healthcare team and users/families/community (Silva et al., 2015).

However, overcoming difficulties in transposing the concepts proposed in the DCN to the scenarios of the training process is challenging. To effectively change, it is necessary to recognize that although the SUS and the DCN focus on teamwork, the predominant model of education and professional practice of health workers is still uniprofessional (Silva et al., 2015). Investments in interprofessional training at the undergraduate level are still at an early stage in Brazil. Therefore, it may take a long period for its development and implementation, both due to institutional differences and to the change of conceptions already instituted in the history of educational establishments that have their basis in uniprofessional training.

Curriculum change has been an important challenge for implementing IPE because of factors such as curricular content, integration, schedule, and course strictness (Sunguya et al., 2014). In addition to the curriculum, barriers related to resource, leadership and stereotypes, indicated as interest in developing countries (Sunguya et al., 2014), are especially important for countries in Latin America and the Caribbean to implement successful programs.

Leadership barriers are related to insufficient planning, lack of coordination and organization, and lack of interest or support. There is a lack of financing resources for activities such as curricular development, personnel training and payment, research, and program costs. Stereotypes and attitudes regarding instructors' preferences for their own professions may harm the learning process of students from other vocations (Sunguya et al., 2014). Therefore, tension may arise from changes in proposals to the education model (Teixeira et al., 2013).

From the student's perspective, IPE contributes to the development of trust, awareness of different professional roles, and mutual respect. A study conducted with medical, nursing, and pharmacy students in Australia suggested that IPE initiatives should be introduced at the beginning of the program to promote interprofessional socialization and engagement in collaborative practices throughout the program (Bloomfield et al., 2021).

Awareness of roles and responsibilities is essential for interprofessional contribution, and the effectiveness of the changes proposed in health care models, emphasizing primary care. Task combination in teams may be structured based on IPE and practice principles (Cassiani et al., 2020), allowing comprehension of the practices of each profession and teamwork, as

well as the development of collaborative leadership, interprofessional communication and conflict resolution (Josi et al., 2020).

Regarding teaching-learning strategies, the programs presented approaches to new strategies, specifying primary health care as a potential space for IPE. However, interprofessional internships and the development of collaborative competences were mentioned a few times in the documents analyzed, and interprofessional practices were centered on activities not included in the formal curriculum and activities together with the community. Moreover, the fact that the courses are announced in their documents, the primary care perspective does not ensure that this space is not occupied by the same predominant care logic that is centered on the biomedical model and guided by a narrow conception of health.

In contrast to the low value of IPE observed in the context of the analysis, a study implemented with medical, nursing, and dentistry students in Japan recommended institutions increase opportunities for exposure to interprofessional collaboration in various environments, proactively teach students the role of interprofessional collaboration, and provide more time and opportunities for students to express their opinions (Numasawa et al., 2021). From the results presented, the use of active and problematizing teaching-learning methods, small groups and round-table discussions as interactive methods can favor interaction among students, even in a uniprofessional program. Active methods have been used in different countries to teach nursing, and they make students face situations in which they should rely on critical analysis and make decisions together with their colleagues (Ghezzi et al., 2021).

It is important to highlight the role played by educators and their qualifications for IPE, because many of them do not have any experience or ability to advise students (Reeves et al., 2013); thus, professors and trainers should be prepared (Hill et al., 2020). In addition to preparation, it is important to have a proper educator-student ratio (Hill et al., 2020), and health facilities should be ready to provide interprofessional learning (Davidson et al., 2020).

IPE progress in the context of primary health care includes efforts in different levels: governance, at an upper level; information systems and organizational culture at medium stage; team structure, social process, formal process, and team attitudes on a lower level; and, as individual factors, believing in interprofessional care, and taking a flexible stance (Mulvale et al., 2016). Finally, despite the intention of providing IPE observed in some programs, the practice is still not institutionalized, and it demands efforts at distinct levels for its implementation.

To strengthen SUS, inductive policies have been implemented to reorient professional training, and value experiences in health services. In Brazil, some strategies, such as teaching-service-community partnerships, have been applied to actions among municipal management bodies, teaching institutions, and practice settings in the SUS. Nevertheless, a series of experiences in Brazil have been landmarks for changes in undergraduate education, from the perspective of insertion and integration of students in practice settings in health services. One example of these initiatives are the PET-Saúde, which was complementary by proposing projects linked to services and territory, merging undergraduate courses, professors from different areas, service professionals from various

backgrounds, managers and user representatives (Ceccim, 2017; Dias et al., 2013; Haddad et al., 2012).

Recently, initiatives that could help develop IPE have been decreasing in number, especially at the ministerial level in Brazil and particularly since 2016. However, with support from the Pan American Health Organization (PAHO), PET-Saúde Interprofessionality was launched in 2018, aiming to develop IPE through projects in Brazilian HEIs and municipal health secretariats, which included interaction between students and teachers from different professional areas in the exercise of collaborative work with health teams in primary care. The effects of this PET-Interprofessionality initiative can serve as a basis for the development of interprofessional practices in health courses.

Changes in IPE require intersectoral and interinstitutional efforts, with investments in education, regulation, and the labor market (Cassiani et al., 2020), which includes policymakers, institutional leaders, and individual professionals (Mulvale et al., 2016). The analysis of publicly available documents was a limitation of this study. Thus, further studies with strategies to learn from professors, students, and professionals at health care facilities, using interviews, questionnaires, observation, or other methodological strategies are suggested.

Conclusion

IPE was not institutionalized/stated in many syllabi in Brazil and its intention proved to be uncertain. Even though the documents indicated interprofessional relationships in the practice scenario, especially in primary care, emphasized activities were not included in the formal curriculum. Strategies are needed to strengthen health professions curricula in Brazil and restructure the syllabus in a more integrated way; with the creation of formal spaces for intercourse/inter-program training from the early years of degree studies, considering primary health care as an important scenario to promote IPE, as well as investments in teaching-learning methodologies that use small groups and favor communication, negotiation, and collaboration skills.

Disclosure statement




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