Education in the health area: initiatives and possibilities envisioned


ABSTRACT. Interprofessional Education is characterized by a set of collaborative actions, developed by different professionals, from the exchange of knowledge and professional development in the educational sphere. The aim of this study was to explore the initiatives and possibilities of interprofessional education in health courses. This is a descriptive and exploratory research, with a qualitative approach, in which the data were absorbed from the Pedagogical Projects of the Courses (PPCs) of undergraduate health of a Federal University and the experiences of 14 academics, 4 coordinators and 6 professors. In the data collection, we used semi-structured interviews and documental analysis of the PPCs of the courses, analyzed through content analysis. Thematic units were identified as: "Curricular initiatives of interprofessional education in health courses", "Initiatives of interprofessional education in health courses according to the academic community" and "Possibilities of interprofessional education in health from the perspective of the academic community". The results indicated the absence of IPE in the health courses investigated with few curricular initiatives that ensure a training directed to the interprofessional competencies required by the UHS.

Keywords: Interprofessional education; interdisciplinary practices; teaching; health.

Introduction

Training professionals to work in the health area is a path full of learning and many challenges, especially when this training requires interprofessional skills for the development of collaborative health practices. The Lei de Diretrizes e Bases da Educação (LDB) N. 9,394/1996, which bases the National Curriculum Guidelines (NCGs), emphasizes an education focused on effective performance in the Unified Health System (UHS), warning that the professional is trained in order to have qualities and skills related to health care, and aiming at a team performance and with a horizontal dialogue between all professionals working, in order to contribute to the provision of care to the user (Batista, Rossit, Batista, Silva, Uchôa-Figueiredo, & Poletto, 2018). In this collaborative action of health professionals, interprofessional training is essential.

Interprofessional Education (IPE) is characterized by a set of collaborative actions, developed by different professionals, in a dynamic of knowledge exchange and professional development in the educational sphere (Batista et al., 2018). In the university context, IPE allows students to develop the skills necessary for effective action, and collaboratively with other health professionals in order to ensure comprehensive care (Reeves, 2016).

Even with several educational initiatives aimed at promoting IPE in Health, there is still a great gap between academic knowledge and the reality of health work in the services offered by the UHS. This distancing ends up being accentuated given that professional practice in health tends to stagnate in something automated, which together with a training that did not presuppose the need to understand collaborative practice to work in health service provided (Kinker, Moreira, Moreira, Bartuol, & Bertuol, 2018).

It is important to point out that, from the year 2017, resolution N. 569 was published by the National Health Council, which aimed to reiterate the urgency of the training of workers to work in the health area, in addition to seeking to integrate teaching-service-management-community in order to disseminate favorable environments so that students of health courses can live the reality of work in health policies and interprofessional teamwork, crucial for health training. All this resolution was implemented to the National
Curriculum Guidelines, enabling the occurrence of reformulations in the curricula of higher education health courses so that they could include IPE. According to Costa (2016), these guidelines are responsible for giving rise to several curricular implementations necessary for the training of future professionals able to work in the UHS, contributing to a more critical and reflective training.

Jones and Phillips (2016) point to the need for collaborative practice and initiatives aimed at training health professionals able to provide an effective and comprehensive service. Besides, Batista et al. (2018) emphasize the importance of thinking about possibilities that seek to develop IPE and collaborative practices of action in the UHS during the health training process. Initiatives such as the Programa Nacional de Reorientação da Formação Profissional em Saúde (PRÔ-Saúde) and the Programa de Educação pelo Trabalho para a Saúde (PET-Saúde) were seen as successful and effective in the promotion of IPE in university and health contexts (Batista, Jansen, Assisi, Senna, & Cury, 2015; Costa, Patrício, Câmara, Azevedo, & Batista, 2015).

A survey conducted by Cohen et al. (2016) that investigated the training results, through an interprofessional education program of a team working in the care of patients with Parkinson’s disease, showed positive gains for team strategies in professional performance, improvements in practices and care provided to patients. Collaborative work in health is only possible through the implementation of a transformative interprofessional education (Meleis, 2016). However, much is still to be done. Effective communication, teamwork and solving complex problems in the health field are competencies that need to be acquired by health professionals to improve the quality of the service provided.

Therefore, it is necessary to think about interprofessional training during graduation. In addition, there are few studies that address the initiatives and possibilities for the development of IPE in Brazilian public universities, which allow a greater understanding of the needs and possible alternatives for the development of interprofessional skills and competencies required by the UHS. Thus, it is observed the relevance of research that investigates the theme considering such perspectives. In this wake of thought, the aim of this study was to explore the initiatives and possibilities of interprofessional education in health courses.

Method

Type of study

This is a descriptive and exploratory research with a qualitative approach. The data were absorbed from the Pedagogical Projects of the Courses (PPCs) of undergraduate health area of a federal university located in the Midwest of the country and the experiences of the academic community. Documentary studies seek to analyze documents in a detailed way, intended to describe, record, analyze and interpret a given phenomenon (Marconi, & Lakatos, 2007; Oliveira, 2007). For this, the PPCs of physical education, nursing, medicine, nutrition, social work and psychology courses were evaluated.

To obtain the data regarding the reports of the academic community, the following stages were performed: preparation of the semi-structured interview, selection and contact with the interviewees, signing of the Free and Informed Consent Form, data collection, transcription and data analysis. For methodological guidance, the checklist proposed by the Consolidated Criteria for reporting qualitative research (COREQ) (Tong, Sainsbury, & Craig, 2007) was used.

Study participants

The participants of this study were 14 students from the last period of physical education (n=4), nursing (n=1), medicine (n=2), nutrition (n=3), psychology (n=2) and social work (n=2), four coordinators (medicine, nursing, psychology and social work) and six professors (physical education=1, medicine=1, nutrition=1, psychology=1 and social work=2) of these courses with a minimum of 4 years of experience in higher education.

For the students, the inclusion criteria included: students from the last semester/year of their respective courses, understanding that these individuals have already gone through the experience of theory and practice in health offered by the course; are attending a bachelor’s degree and; over 18 years of age. For the coordinators included: the exercise of teaching activities for at least 4 years and who were currently in the coordination position. For the professors included: being professors of the institution for at least 4 years and teaching subjects or participating in a project related to health. The minimum limit of 4 years was selected because it is the probationary period and, therefore, greater integration with the university’s activities.
Data collection instrument

The resource used for data collection was a semi-structured interview. The elaboration of the instrument used was based on literature on IPE (World Health Organization [WHO], 2010; Lie, Walsh, Segal-Gidan, Banzali, & Lohenry, 2013). Then, pilot tests were performed with participants who were in accordance with the inclusion criteria, however, from other institutions to verify the attendance of the answers in relation to the objectives of the present study and the indicators of the theoretical matrix. Based on the answers and feedback of the interviewees, the necessary adaptations were made. The interviews of the pilot test were not considered for data analysis, but for the necessary adjustments in the interview scripts. Three semi-structured interview scripts were conducted, being specific for each participating public, with the objective of capturing from the interviewees the initiatives and possibilities of IPE envisioned in the health courses.

The interviewers were undergraduate students in physical education, nursing, medicine, nutrition, psychology and social work, members of PET-Saúde Interprofissionalidade. In addition, they participated in training for the interviews. They sought the contacts of the participants directly with the professors who had access to the students who attended the last semester/year of the course and, later, with the coordination of the courses to disseminate the research among the students and professors, waiting for the expression of the interest in participating in the research by them.

Data were collected between September and November 2020. Due to the pandemic period of Covid-19, the interviews were conducted digitally on online and recorded meeting platforms, with an average duration of 30 minutes. The transcriptions were made in full and separated according to the participating public, using the acronyms C, P and E for coordinators, professors and students, respectively, and enumerated according to the order of the interview.

Data analysis

The documental analysis of the PPCs of the courses was based on the search for strategies that addressed IPE, seeking the terms: “interprofessionality”, “interdisciplinarity” and “intersectoriality”, “multiprofessionality” and its matrix. Then, the clippings of these excerpts were made for content analysis. When discussing IPE, it is possible to observe terms related to the words profession, discipline and sector, with the prefixes “inter” and/or “multi”. However, unlike IPE, which relates to the crossing of two or more professionals in common, multiprofessionality and multidisciplinarity are designated to refer to actions, actions and team collaborations (CECCIM, 2018).

The product of the interviews with the academic community was submitted to content analysis recommended by Bardin (pre-analysis, exploration of the material and treatment of the results – inference and interpretation). After the transcription of the participants’ statements, a comprehensive reading of all reports was performed in search of initiatives and possibilities of IPE pointed out by the academic community. In the data interpretation phase, the inference and interpretation was adopted, in which it can be presented, discussed and debated from more evident excerpts of each category, proceeding with the description, inference and interpretation according to the literature.

Ethical aspects

This study was approved by the Research Ethics Committee (CEP) of the Federal University of Mato Grosso, opinion n. 3,630,012, in accordance with Resolution 466/2012 and 510/2016 of the National Health Council. All courses participating in the study were authorized by their representatives and teaching coordination. The interviewees signed the Informed Consent Form (ICF) by digital means to participate in the interview.

Results and discussion

After the documental analysis of the PPC’s, and the analysis of the interviews with the research participants, the results were presented from the categories evidenced. The process of organization and classification of data allowed the elaboration of thematic units: “Curricular initiatives of interprofessional education in health courses”, “Initiatives of interprofessional education in health courses according to the academic community” and “Possibilities of interprofessional education in health from the perspective of the academic community”, which emerged from the pedagogical projects of the courses and the speeches of the participants of the interviews.
Category 1 - Curricular initiatives of interprofessional education in health courses

In this category, aspects that permeate the assumptions of multiprofessionality were evidenced in the PPCs of Physical Education, Psychology, Medicine, Social Work, Nursing and Nutrition, which permeate the assumptions of multiprofessionality, through curricular and extracurricular initiatives. These initiatives permeate training for multiprofessional work, team management and course insertions in multidisciplinary teams. Table 1 presents the indicators of IPE-related terms in PPCs of health courses.

Table 1. IPE indicators in the pedagogical projects of health courses.

<table>
<thead>
<tr>
<th>Health courses</th>
<th>Year of publication</th>
<th>IPE curricular initiatives</th>
<th>Evidenced location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>2012</td>
<td>Participate, advise, coordinate, lead and manage multiprofessional teams in the health field.</td>
<td>- Pedagogical Strategies. - Curricular subjects</td>
</tr>
<tr>
<td>Psychology</td>
<td>2009</td>
<td>Psychologist as part of a multidisciplinary team.</td>
<td>- Curricular subjects</td>
</tr>
<tr>
<td>Medicine</td>
<td>2009</td>
<td>Training for multidisciplinary and interdisciplinary teamwork; Leadership skills for community well-being</td>
<td>- Research and extension policy (teaching-service integration) - Skills and abilities.</td>
</tr>
<tr>
<td>Social Service</td>
<td>2010</td>
<td>Carry out interdisciplinary and multiprofessional activities; Interdisciplinary character in the various dimensions of the professional training project; Curricular flexibility, interdisciplinarity, investigative dimension and pluralism as formative principles and central condition of professional training and the theory/reality relationship.</td>
<td>- Profile of the graduate and course objective - Principles. - Research and extension policy (teaching-service integration)</td>
</tr>
<tr>
<td>Nursing</td>
<td>2010</td>
<td>Work in a multidisciplinary team and carry out interdisciplinary practices.</td>
<td>- Profile of the graduate and course objective - Principles</td>
</tr>
<tr>
<td>Nutrition</td>
<td>2010</td>
<td>Work in multidisciplinary teams and nutritional therapy.</td>
<td>- Skills and Abilities</td>
</tr>
</tbody>
</table>

It was possible to identify the terms in several fields of PPCs as in the “Principles of the course”, “Profile of the graduate and objective of the course” and “Research and extension policy”. The term “multiprofessional” was used in all PPCs understanding the importance of working with other health professionals in different professional fields, especially because it is present in the fields that discuss the competencies and principles of the courses. Despite verifying the terms in all courses analyzed, the terms interprofessionality and intersectoriality were not evidenced. The terms “multiprofessional” and “interprofessional” express levels of interaction among professionals, the first concerns different areas of activity that have an independent bond and the second represents a collaborative interaction between all professionals in order to achieve a common goal (Costa, Peduzzi, Freire Filho, & Silva, 2017).

Teamwork should provide the construction of common conduct scans among professionals to establish a necessary cooperation in the development of the service. Therefore, the interprofessional approach becomes an important tool to expand health education with a focus on improving collaborative practices to act more effectively in the face of the needs of the population (Pereira, Riveira, & Artmann, 2013).

In a study conducted in order to analyze the panorama of IPE in Higher Education Institutions (HEIs) in the state of São Paulo, Amaral (2016) observed that only three of the 80 HEIs analyzed had IPE in the PPCs of the health courses offered. In an interview with course coordinators of these three institutions, there was a report that the faculty is not qualified for the IPE proposal, becoming a fragile and unguaranteed method that is really effective, and it is necessary to think about strategies that promote a new posture and break paradigms.

Bezerra, Azevedo, e Sampaio (2020) found in her study developed in the state of Alagoas the presence of the concern of professional training qualified to achieve interprofessional practice. This study took place at...
the Specialized Rehabilitation Center of a university with courses in physiotherapy, occupational therapy and speech therapy, which promote teaching based on preceptorship activities. When analyzing the PCC of the speech therapy course, the author observed that the PCC of 2008 brings IPE in a similar way with the use of the concept of interdisciplinarity, and in 2014 seeks to foster professional practice based on collaborative health practices through interprofessional experience. Therefore, different results can be observed in different parts of the country, highlighting the importance of discussions and debates about the incorporation of IPE in the curricular matrices of health courses.

**Category 2 - Interprofessional education initiatives in health courses according to the academic community**

In this category, the results are worked according to the interviews conducted with students, professors and coordinators. It is important to highlight that the aim of this study was to analyze the presence of IPE in health courses and no comparison was made between the courses. The interviewees highlighted academic moments in which they experienced some IPE initiatives, but also highlighted their scarcity in the respective courses. The interviewees highlighted academic moments in which they experienced some IPE initiatives, but also highlighted their scarcity in the respective courses. The reports of the students indicate few experiences during the formative process with students from other health courses, which may involve them in interprofessional activities.

 [...] Within the curriculum, I do not remember any situation. We have a lot of incentive from the college to perform interprofessional activities in extracurricular activities, but not activities of the undergraduate itself, at least not that I remember. Exactly, there is this incentive, but it is extracurricular [...] (A5)

 [...] my only contact with healthcare was when I started the internship, but I only stayed for 2 months interning at NASF. It was a primary care unit, where I had a little contact with the nutrition professionals, sometimes with some other students, but the contact was very little, besides the students I also had contact with the professionals, but I did not have an interaction to talk about the practices they did, it was more follow the work there in the day to day, so there wasn’t much interaction [...] (A14)

 It was possible to verify that the interviewees reported different ways of mentioning the scarcity of opportunity for interprofessional training in health courses, made possible almost exclusively by sporadic extracurricular activities in academic leagues and extension projects, by internships and punctual practices. However, in the perception of coordinators and professors, in addition to these spaces, some undergraduate disciplines, especially those offered by professors of other courses, also consider the assumptions of IPE as observed below:

 [...] I see that mainly in the stages [...] When he (student) goes, for example, to the project of professor “X”, she goes and does a project within pediatrics, because professor “X” does more within the library, and professor “X” does more within pediatrics itself, I think these are initiatives that will surely put our student in these interprofessional realities, compulsorily. The ones I know strongly are these, are those moments where our student goes to realities that are by themselves interprofessional... that I know [...] (C4)

 [...] in the first semesters the dialogue with other areas, other courses was more limited the disciplines that were offered by other departments, but obviously that had some other events, where they were held by the course, by the university, in order to take all this care, and this concern [...] (P5)

 [...] I realize that now there are more classes given by other professionals, which I think is important, which is good, of course the basic subjects as a medical clinic, still have to be with the doctor, there is no way, now other professions can help and give this idea of multiprofessionality that I think is important for the student [...] (P1)

 By observing the PPCs, one can identify the importance of the professional as part of an interprofessional/multiprofessional team in the health field, being part of preparing the profile of the graduate and developing the competencies and skills of these students. However, according to the reports of the academic community, such preparations are not explicit or present in an expressway way in educational activities, especially curricular disciplines. It is known that the training of health professionals is still based on the conception of uniprofessional work, in which the individual receives necessary knowledge for his specific practice, however, there is no interaction with other courses in the area. There is a lack of activities that allow active learning, which provides collaborative experiences to students from all areas, aiming to build effective interprofessional relationships to achieve a common goal and enable quality care to the user of the health service (Diggele, Roberts, Burgess, & Mellis, 2020).
A study conducted by Miguel, Albiero, Alves, and Bicudo (2018) analyzed strategies used in disciplines in health courses at a university in Paraná with the objective of preparing the student for collaborative practice through IPE. The new model adopted of teaching in the disciplines helped students develop the ability to visualize the problem in various dimensions from the integrality and dimensions that are inserted in health promotion and disease prevention. It is note that a great institutional effort is essential to promote all the necessary changes for the implementation of IPE in the pedagogical projects of the investigated courses.

In a proposal to insert IPE to undergraduate health students at a university in the state of Pernambuco, a module entitled “interprofessional module in health” was developed. In the bachelor’s degree course in Physical Education, at the beginning there was a demotivation because of the low professional identification with the UHS, since many were unaware of the curricular guidelines of their course and had a vision of the pre-established profession. Over time, the students of this course have developed a favorable motivation regarding the possibility of interaction with other students in the health area to promote teamwork based on collaborative practices. This scenario favors the professional and personal growth of academics and provides positive changes in the reality of the health system. (Reubens-Leonidio, Carvalho, Antunes, & Barros, 2021). Although there are few activities related to IPE due to the perception of the academic community in the present study, the literature points out possibilities of work in different areas of activity in higher education to encourage and promote interprofessionality, which can be incorporated in the future.

**Category 3 - Possibilities of interprofessional education in health from the perspective of the academic community**

In this category, the possibility of IPE within the academic environment was pointed out by the view of the academic community. The interviewees reported means that they considered efficient in the implementation of IPE in health, such as elective disciplines that were of interest to other health courses, discussion in seminars, interprofessional training workshop and scientific events that were addressed common themes and of significant importance in the academic-practical training of health professionals.

[...] I think that offering disciplines that could, the same discipline and the same code, be in several pedagogical projects of course, certainly could foster, even if it was optional, but could foster. If this is not possible, at least extension courses [...] (C4)

[...] through workshops, through scientific events, show the importance of this interprofessionality in care, in this line of care [...] (P4)

Another group of interviewees was identified that suggest the formation of disciplines and workshops for professional training. The idea of expanded discussions between health courses promotes effective changes in pedagogical projects and professional training of professors, in addition to an expanded training among health courses. It can be observed in the statements of some professors:

[...] in strategies in undergraduate studies, I do not think it is strategic to take only one discipline where it will discuss the perspective of interprofessional education, we need to enter the entire pedagogical project, thinking that in the same way it is not limited there is a single specific discipline. For example, in the debate on social policy, we have possibilities to think about interprofessional strategies, in the discussion about practice seminar, foundation of professional practice, workshop of professional training, we have several possibilities in other disciplines of our course. [...] (P5)

[...] I believe that at first the idea would be to have an expanded training, where it addressed the potentialities in the effectiveness of IPE. And I believe that it would be more effective if all the categories (coordinators, professors and students) of the university were articulated in order to apprehend what IPE is about, so that the IPE is thought of in the reality in which it will be implemented, seeking methods that can advance in the reality of the principles of interprofessionality [...] (P6)

It is possible to verify in the above mentioned statements some suggestions aimed at the implementation of IPE in health in higher education. It was noticed during the interviews possibilities of development and professional qualification for IPE, being presented less clearly in the PPCs of the courses. Through the reports collected in the interviews, such implementation is necessary and possible to perform in the academic scope among health courses.

Study by Mokler et al. (2019) brought together a team with students from various health programs at the University of New England (UNE), in which a simulated case was analyzed so that participants could understand the roles and responsibilities of their professions in an interprofessional team. It was observed that the students...
improved their communication skills and understood their roles and responsibilities better. In addition, there were statistically significant effects on the knowledge, skills and interprofessional attitudes self-reported by the participants. Thus, there are different possibilities of inserting the IPE in higher education for the training of professionals, who work collaboratively, respecting the different professional competencies.

**Final considerations**

Through documents and reports from the academic community, it is considered that there is an absence of IPE in the health courses investigated. Despite observing some elements related to the theme of multiprofessionality and interdisciplinarity in the pedagogical projects of the courses, there are few curricular clarity and initiatives that ensure training directed to the interprofessional competencies required by the UHS. Nevertheless, students and professors envisioned important possibilities in the development of IPE in their courses, such as the creation of events and disciplines, and discussions for an expanded training of professors in the health area.

The research presented some limitations, including the restriction of participating courses within a university and the interviews conducted online because of the Covid-19 pandemic. Therefore, for future studies, new analyses are suggested, involving professionals who receive students in their units, and comparing IPE between different courses in the health area, as well as between public and private universities.

**References**


de Residência Multiprofissional em Rede de Atenção Psicosocial (UNIFESP). Tempus – Acta de Saúde Coletiva, 12(1), 207-221. DOI: https://doi.org/10.18569/tempus.v10i4.2036


Acta Scientiarum. Health Sciences, v. 45, e62794, 2023