The Covid-19 pandemic has changed the practical activities in health care to online education, a major challenge for health courses with interprofessional curriculums. This article reports on the experience of a group from Integrated Clinic Module: care production, part of the Work in Health axis, at the Federal University of São Paulo, Baixada Santista campus, using the format of special home activities, highlighting how interprofessional competencies were developed in this new perspective. In eight synchronous meetings, we brought students closer to the reality of the health service through exchanges with providers and service users. We discussed the experience of learning about care, especially in this pandemic context, and the changes it brought. We managed to achieve the module’s educational objectives and develop the skills for collaborative interprofessional practice, although some were incipient.

Background

Covid-19 spread worldwide in March 2020, and due to the fact that it is an easily contagious virus with no known effective treatments, the first strategy adopted by the World Health Organization (WHO) was physical and social isolation. In Brazil, one of the containment measures against the spread of the virus was the suspension of classroom activities in the school networks, as determined by the Ministry of Education.

Due to this situation in education, several countries have started to devise alternatives for school attendance in an exceptional situation, relying nowadays on options that in other pandemic moments in the past could not be used, such as the dissemination of information and communication technologies. Nonetheless, isolation has promoted austere economic and social transformations, creating in the field of education “deconstructions in the way teaching and learning are socially viewed” (p.258).

When considering health education, it must be taken into account the health care network, which, due to the increase in the number of patients, has been under intense stress, since it operates beyond its capacities. This situation highlighted and aggravated the problems that the Brazilian National Health System (SUS) has been facing for years due to lack of policies and adequate funding. In an attempt to focus their efforts on fighting the pandemic and following sanitary recommendations, the practical teaching activities that took place in the health services were interrupted.

In the present state of crisis it is important to reflect that technology can be a great ally to maintain the continuity of education, and consequently the bond between students and educational institutions, despite the fact that they are increasingly losing their social representativeness, which has long been deconstructed. Meanwhile, the authors who have analyzed the issue of implementing remote teaching in higher education in Brazil are aware that teaching is not only based on technique, and that there are issues that technology is unlikely to replace, as for instance the interprofessional health care practices, which are currently being adapted for this form of teaching.

The interprofessional practice requires an education that involves meaningful challenges and needs, breaking off with the instrumental character of contents and methodologies, in favor of the construction of a critical reflection on health practices, and therefore characterizing interprofessional education (IPE). IPE takes into account the biological and cultural dimensions, work, social relations, conditions of production and life in societies, which considers the other as a legitimate partner in the construction of knowledge, respecting differences in a movement of search, dialogue, commitment and accountability.

Structural changes are needed to work on the IPE dimension, involving teachers, students, health services and the community, so that everyone dialogues about its objectives and practices. The IPE practice poses a need to learn skills which are common to all professions; skills specific to each professional area; and collaborative skills.
Education in IPE through collaborative competencies stimulates moments of shared learning, based on coordination and cooperation, forming future professionals who can interact, deal better with diversity, and build a common vision. It allows to acquire interprofessionalism, developing communication skills, critical analysis, integrated teamwork, in the commitment to improve health care, moving towards strengthened health systems, with professionals who identify themselves as members of an interprofessional team exercising collaborative practice.

Other aspects that are intertwined with the consolidation and formation of interprofessional education and collaborative practice (IPECP) are: relevance of the contribution of legislation and policies destined to health learning and educational processes, valuing professional education by the health services, building partnerships among those involved in the learning process, training teachers, improving interprofessional communication, and using active teaching methodologies. This demonstrates the challenge that the IPE poses in the quest for building a new integrated care and educational model to strengthen the SUS.

Given the characteristics of IPE, it is assumed that the educational models were created with the assumption of face-to-face interaction and socialization, as is the case of the curricula of the health courses of the Institute of Health and Society, Federal University of São Paulo, Campus Baixada Santista (Unifesp-BS). An innovatory curriculum was implemented in 2006 for the Physical Education, Physiotherapy, Nutrition, Psychology, and Occupational Therapy courses, adding in 2009 the Social Service course, presenting interprofessionality in health as one of the guiding axes. The curriculum presents Common Axes in which students learn together, in an integrated way, issues related to the human being and its biological perspective, its social insertion, and about work in health.

In these hubs, students compose mixed classes and develop theoretical and practical activities in order to develop competencies for interprofessional collaborative practice (ICP), as intended by models that guide curriculum development in IPE, such as that of the Canadian Interprofessional Health Collaborative (CIHC), which acknowledges six domains of competencies for ICP: Patient-, family-, and community-centered care; Interprofessional communication; Role clarification; Team functioning; Conflict resolution; and Collaborative leadership.

The reshaping of curricula for the virtual environment in the context of the pandemic made it necessary to review the strategies for IPECP and investigate the implication for education. The interprofessional socialization of the student in the virtual environments, as well as with the professors and professionals of the services is different in relation to the traditional face-to-face education. Moreover, there are obstacles for the access to digital media, such as a good connections and quality equipment on the part of public university students, in a country with great social inequalities. These obstacles are also present on the part of service professionals, who have kept up their activities in the face of Covid-19, with rules restricted to the use of the service’s equipment, relying only on their personal resources for communication.
As the suitability of the face-to-face context for the remote one was accomplished very quickly, the literature is already questioning how much health courses have managed to pay due attention to interprofessionality, with the care, intensity and complexity it requires in online remote education.

Hence, we will report our experience with interprofessional education in health with 5th term students of the Health-Work Common Axis of the Unifesp-BS curriculum, which develops the module 'Integrated Clinic: Production of Care', critically analyzing the outcome of this new way of teaching and learning.

Experience report

The teaching activities at Unifesp were suspended and the ordinance Prograd 2091/2020 standardized the resumption of academic activities of undergraduate courses under the exceptional regime of Special Home Activities. This standardization was built considering:

- Survey the conditions of access to equipment and internet by the students and enable ways to provide them.
- Survey of teacher education needs and educational initiatives for remote teaching.
- Mapping diagnosis made by the university units, about the courses and curricular units in progress that could be developed remotely.
- The decision to resume the academic semester was remotely approved by the institution’s higher councils.

It is important to point out that through the Connected Students project, an initiative of the National Network for Education and Research and the Ministry of Education (RNP/MEC in the Portuguese acronym), the university was able to fulfill the equipment and internet needs via public call, allowing the access of all the students who requested the aid.

Among the digital means for Special Home Activities development, the institution has fostered the use of G-Suite for Education applications, including Google Classroom, via institutional email.

Several axis meetings were necessary for the organization of the Special Home Activities offerings. The Integrated Clinic: Care Production module has an eminently practical character (total course workload of 80 hours/semester, distributed in eight theoretical and 72 practical hours) in which the students go to the field to perform actions related to care production in several facilities of the Santos municipal network. The module’s coordination proposed a schedule that allowed the teachers responsible for each course to organize their activities as best suited to this new reality. In this semester, the work involved the education of nine classes, with 19 responsible faculty members, one administrative technician in education and monitors. Six synchronous meetings were organized for each class with their respective teachers, and two synchronous cross-curricular meetings for all classes with pre-defined themes, in addition to asynchronous activities.
We were in charge of developing actions in the territory of the Embaré Basic Health Unit (BHU). Our group was composed of two professors, one doctoral student and 11 students from Physical Education, Physiotherapy, Nutrition, Psychology and Occupational Therapy. For nine years Unifesp has carried out this activity in this BHU and this was the first time the practice was done virtually. In order to organize the activities, we chose to bring the BHU closer to the students in an attempt to minimize the physical distance, and to facilitate the understanding of the reality of the service and the possibilities of thinking about health practices in this new teaching format. Nevertheless, in this organization the participation of the service was pinpointed, different from what was observed in the face-to-face mode. This occurred due to restricted access to the services’ internet network, which was geared toward internal communication and, therefore, was incompatible with the videoconferencing tools used in the meetings.

The preliminary meeting was planned having a moment to talk about the resumption of activities in this new format, thinking about a space for students to talk about their impressions and experiences with the pandemic and the changes it brought.

A number of students have reported that the new model is challenging and this has caused a lot of distress and insecurity, especially when thinking about hands-on modules. No student in our group had difficulties accessing the classes due to equipment or internet problems. Despite this, two students began to work to help with the family income and had incompatibilities to take the module. As the meetings were recorded, this was an alternative for the follow-up of these students, as well as the follow-up of the teachers in the virtual classroom. The welcome offered in the first meeting made an important difference regarding the expectations of the semester that was beginning. Despite anxiety and fear, we identified the desire to discover new forms of care. Nonetheless, not everyone had favorable expectations, as they did not believe in distance learning for health courses.

We arranged four more synchronous meetings that promoted contact with people linked to the service: one with the unit manager; one with former students who have attended this field; one with the professionals and former students who accompanied users of the BHU in previous semesters, and one with a user who was treated in previous years. Finally, it was held a meeting in order to evaluate the module.

In these synchronous meetings we promote discussion about health care, understanding the practice as a moment in the teaching-learning process in which the student is faced with situations that should motivate his interest, allowing the construction of knowledge and critical reflection about the world. We employed pedagogical strategies such as reflective diaries, and the construction of Ecomaps and Genograms, as well as the elaboration of a personalized therapeutic project based on cases seen in previous semesters, so that students could learn to identify the support network, and to reflect and plan care strategies based on the reality of the services and the users’ demands.
The challenge of building health education practices in this format lies precisely in the distance from the object of practice, that is, in the production of care itself, carried out by direct presence and bonding. In the format of our curriculum, this challenge increases, because we have to think about how the care relationship is based on an interprofessional relationship.

However, we observed that we were able to develop the competencies for the IPECP in this Special Home Activities module. The collaborative competencies were widely discussed and imbricated in the process of reflection and planning of the proposed activities, as illustrated in Frame 1. This occurred when we performed the instances of exchange between students, service professionals and users associated with the reflective diary activities, the construction of the genogram, ecomap and personalized therapeutic project.

**Frame 1. Competencies developed for the Collaborative Interprofessional Practice in the Integrated Clinic: care production, Unifesp, 2020**

<table>
<thead>
<tr>
<th>Activities Performed</th>
<th>Competencies for Collaborative Interprofessional Practice (ICP)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Role Clarity</td>
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<tr>
<td>Presentation of the faculty and students (Personal Account)</td>
<td>x</td>
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<tr>
<td>Reading and Reflection on the Humanization Health Policy</td>
<td>x</td>
</tr>
<tr>
<td>Health Care Network (video)</td>
<td>x</td>
</tr>
<tr>
<td>Conversation with service professionals</td>
<td>x</td>
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<tr>
<td>Soft Care Technologies (video)</td>
<td>x</td>
</tr>
<tr>
<td>Construction of the Genogram and Ecomap</td>
<td>x</td>
</tr>
<tr>
<td>Presentation of a successful experience with participation of former students</td>
<td>x</td>
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<tr>
<td>Transversal Meeting: Strengthening Territorial Care Networks</td>
<td>x</td>
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<tr>
<td>Building a Unique Therapeutic Project</td>
<td>x</td>
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<tr>
<td>Transversal Meeting: Collective Dimensions of Care</td>
<td>x</td>
</tr>
<tr>
<td>Conversation with User accompanied by different student teams</td>
<td>x</td>
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The theoretical background for the meetings was available on the Google Classroom platform, organized in basic and complementary references. The basic references consisted of reading the document HumanizaSUS; references on Genogram and Ecomap; a book chapter authored by the module’s professors, former students, and professionals from Embaré BHU, which describes and reflects on the experience of IPECP in the care of a user. Short YouTube videos on Health Care Networks and Light Technologies were also made available.

Based on the literature and the reflections provided in the directed activities or discussion in the synchronous meetings, we especially addressed the competencies related to person-centered care, interprofessional communication, and team functioning. Following Agrelli et al., person-centered care was associated with humanization, especially in the relational sphere, of interactions between professionals and users, expressed in the National Policy for Humanization in Health.

Getting to know the family structure, the interaction with the environment, the health problems, the risk situations, the vulnerability patterns, contributes to the care planning. In the study by Uchôa-Figueiredo et al., the Ecomap allowed the team to identify the relationships that the user and her husband developed in the territory, in order to contribute to the construction of the personalized therapeutic project.

The text by Uchoa-Figueiredo et al., along with the synchronous meeting with the former students, provided a connection between the various readings and previous activities, according to the students’ reports. They identified the varied and complex situations that must be taken into account to build care, and how much creativity, dedication and effort is needed from professionals to carry out the care project, considering the uniqueness of each person, family and/or territory. There is another remarkable aspect related to the care technologies, since they recognized how light and hard technologies are related in order to generate better care. Regarding teamwork, they emphasized the importance of meeting moments for teaching guidance and sharing with the group, not only for the development in the module, but also to facilitate care practices.

Thus, we prepared for the construction of the care project based on three users followed up in previous semesters. The students were divided into mini teams composed of different professional areas and talked with students from the previous semester, who had accompanied these people as well as to Community Health Agents (CHA). Those agents, despite the release and encouragement of the service for participation in the activity, did it voluntarily using the data plan of their personal cell phones. The mini teams met to think about care proposals reflecting the context of health policies for the SUS.

Due to the pandemic, the students were not in the field conducting home visits for the construction of the project; however, they had the opportunity to reflect on this proposal, developing interprofessional communication for person-centered care. Albeit incipiently, they seem to have advanced in the development of competencies related to team functioning, collaborative leadership, and role clarity.
A virtual meeting was held afterwards with a user from the territory who maintained the link with the teachers, since she had been accompanied in previous years, and had approached the extension projects. This user’s perspective on the care proposals aroused different reflections for the students, because they were able to identify the power of ICP for person-centered care. The meeting allowed them to understand the process of knowledge and collaborative skills acquisition outlined for the Health-Work Common Axis.

Although we can observe that the competences “collaborative leadership” and “conflict resolution” were the least developed in the proposed activities, this fact can be explained by the lack of face-to-face work in the practice environments. Since issues that raise conflicts and demand collaborative leadership permeate caregiving relationships, this pattern might not have occurred if the caregiving was taking place in a face-to-face setting.

In the last meeting we ended the module with an evaluation moment. As in the first meeting, it was open to talk about the experience in the module, in which we had positive feedback about the proposal and the report that it had exceeded expectations. Even though the feeling was that they wanted to return to face-to-face activities, the students managed to balance the pros and cons of this experience.

In order to promote an expanded discussion among the module’s classes, two transversal meetings were organized, with the presence of professionals from the healthcare network and users, to discuss networked care and the implications of the pandemic. The extension project “Strengthening Networks” joined in, sharing how it has been able to provide support to people by mapping the informal network of assistance activities. The Camará Institute, an institution that promotes and defends human rights, especially those of children and adolescents in the city of São Vicente, has presented its experience on how it has organized welfare activities to support the population.

The moments of the crosscutting meetings provided different experiences around the theme of care and addressed the competencies described in frame 1.

The discussions in the crosscutting meetings, when held face-to-face, were powerful in promoting the exchange of experiences between the groups that were in different practice settings. In this format we observed a difference in the interaction between the classes, since the moment was more focused on the discussion with the guests who presented the actions. Despite this, the students brought positive notes, feeling close, even though physically distant, as well as producing exchanges and knowledge.

We have observed in the reading of the diaries the establishment of relationships between theory and practice, which is clear in the alignment of ideas learned in the meetings and associated with the literature on networked care and teamwork.

All the meetings aroused in the students the desire to develop a humanized care, centered on the person, based on their demands and potentialities. In the reflective diaries, everyone expressed the desire to be more human professionals, capable of welcoming the other based on the bond and qualified listening. Some expressed regretting not being able to do the module in person, while others valued each virtual meeting, which was only possible in this teaching model, especially when they referred
to the meeting with the user. For the students the power of the personalized therapeutic project, and its impact on different areas of people’s lives became completely evident. The user was able to convey in a virtual meeting how relevant the home visits and actions developed for her and her family were.

The visualization of the potential of ICP in care was aided by the connection between this module and the previous ones of the Health-Work Common Axis, through the accumulated competencies and skills. The reports focused on how this module managed to work all the concepts of the axis, in an interdisciplinary way, and also to deconstruct the hegemony of biomedical reasoning and hospital logic, which manifests itself in the lack of bonding and standardized treatments, which are often rooted in common sense and are still put into practice in several health services. Associating the experience of previous years, they signaled that Unifesp contributes to the promotion of care and health of people. Evaluating the Axis as a whole, they valued the learning, for providing changes for life by bringing topics that were not present in their daily lives, allowing them to evolve not only as professionals, but as citizens. They also recognized the work of the Axis as a way to give back to society the knowledge they had acquired.

Thoughts

We want to highlight the point is that the IPE proposal is competence-based. This proposal was made by Hugh Barr by highlighting that IPE should develop common, specific and collaborative competencies. And this view has been reinforced worldwide by scholars in the field. Nevertheless, it is necessary to grasp that when we think about competence-based education we are not restricting ourselves to the concept of specialty and class division, understanding that competencies segregate those who know and those who don’t, as denominated by Chauí of “competence ideology”. Quite the contrary, the intent of IPE is exactly to promote a horizontalization in interprofessional relations, decreasing the hierarchy of knowledge through collaborative processes. By these means, in understanding and practicing the competencies for IPECP we base ourselves on Markert in a concept of critical competence that considers the following criteria:

1) the starting point of learning is an action that integrates practice and learning; 2) the student must plan, execute, control and correct his professional action autonomously and also in group with other students; 3) action should fully embrace reality in all its senses and perceptions; 4) learning should be integrated with social processes of cooperation and communication; 5) planning and executing alternatives together to solve a more technical task can promote the competencies to transform and transgress; 6) the results of the integral pedagogical action are associated with the students’ experiences, so that they can generate reflective consciousness, personal autonomy, and willingness for social interaction as a competence of subjective and group action.
In this line of thought, within the concept of competence-based education the learning process must be seen in an integral way, understanding the material, social, methodical and self-reflective dimensions of the teaching-learning process. Therefore, competence-based education in this critical sense broadens integration in professional education. And so, we believe that by developing the competences for IPECP as envisioned by CICH, and endorsed and encouraged by WHO, we have been able to take into account these critical dimensions of competence-based education, as is evident in the reports of the students who built this module with us.

Another important issue to think about when proposing IPECP in the public context of health education in Brazil is the commitment to education for SUS. And this is another relevant counterpoint when highlighting competency-based education, as proposed by Chaui, who attributed the commitment of this education to the market. When we ponder the competencies considering their critical and expanded meaning as discussed above, we observe that the commitment is given to the group that makes up the educational process and the professional practice scenarios, which will have a critical basis to see, transform, and transgress the realities. Thus, we understand that students who have experienced the IPE, as well as professionals who practice the ICP, by understanding the need for collaborative teamwork, will be able to meet the demands of health service users with greater clarity of their professional roles, with greater ability to work as a team promoting better health care to the population, taking into account the local and global factors around them. In addition to understanding the interprofessional nature of SUS following Peduzzi, for being a space for health care, professional education, and management and social control, i.e allowing professionals to work and learn together in a collaborative way.

In view of what we have presented, we understand the importance of the IPE in health education and reinforce its commitment to strengthening the SUS. Now we must also understand the exceptionality of the format in which we work on these issues, since the activities in Special Home Activities were only implemented this way due to the pandemic. We found, however, that we were able to achieve the learning objectives of the module, even though the care practice was not conducted face-to-face. Emphasizing the need for adjustments so that virtual interactions could occur due to the difficulty of access to technologies, especially in the service, and the demand for work by the two students in our class. Hence, we realize that despite the difficulties, teaching and learning in this context invites us to be flexible and sensitive to issues that often occur in face-to-face teaching and that we are not always able to welcome and solve. However, it should be noted that these students already had previous experience with on-site field practice in the previous modules of the Health Work axis, and this was one of the factors that we believe facilitated the conduct of this module as proposed. And we do believe that we will be, again, facing another great challenge due to the lack of prospects of resuming face-to-face teaching, which will lead us to discuss these issues with students who have not yet been able to experience the practice scenarios. This will lead us to rethink and redesign our module in order to address these issues, reflecting again the practice context in which we will be inserted.
Authors’ contributions
All authors actively participated in all stages of preparing the manuscript.

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Conflict of interest
The authors have no conflict of interest to declare.

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A pandemia de Covid-19 fez necessário adequar as atividades práticas em saúde para o formato on-line, sendo esse um desafio maior para os cursos com currículos interprofissionais. Este artigo relata a experiência de uma turma do módulo Clínica Integrada: produção de cuidado, do Eixo Trabalho em Saúde, da Universidade Federal de São Paulo – campus Baixada Santista, no formato de atividades domiciliares especiais, ressaltando como as competências interprofissionais foram desenvolvidas nessa nova perspectiva. Em oito encontros síncronos aproximamos os estudantes da realidade do serviço de saúde por meio de trocas com profissionais e usuários do serviço. Discutimos a experiência de aprender sobre cuidado, inclusive nesse contexto da pandemia e as mudanças dela advindas. Conseguimos alcançar os objetivos educacionais do módulo e desenvolver as competências para a prática interprofissional colaborativa, ainda que algumas tenham sido mais incipientes.


La pandemia de Covid-19 hizo necesario adecuar las actividades prácticas en salud para el formato online, siendo este un desafío mayor para los cursos con currículos interprofesionales. Este artículo relata la experiencia de un grupo del módulo Clínica Integrada: producción de cuidado, del eje Trabajo en Salud, de la Universidad Federal de São Paulo –campus Baixada Santista– en el formato de actividades domiciliares especiales, subrayando cómo las competencias interprofesionales fueron desarrolladas en esta nueva perspectiva. En ocho encuentros sincronizados, aproximamos los estudiantes a la realidad del servicio de salud a partir de intercambios con profesionales y usuarios del servicio. Discutimos la experiencia de aprender sobre cuidado, incluso en este contexto de la pandemia y los cambios que ella trajo. Conseguimos alcanzar los objetivos educativos del módulo y desarrollar las competencias para la práctica interprofesional colaborativa, aunque algunas hayan sido más incipientes.