



TRAINING PROCESS IN THE PANDEMIC CONTEXT: HYBRID TEACHING AS A LEARNING TOOL IN THE HEALTH RESIDENCE PROGRAM

PROCESSO FORMATIVO NO CONTEXTO PANDÊMICO: ENSINO HÍBRIDO COMO FERRAMENTA DE APRENDIZAGEM NO PROGRAMA DE RESIDÊNCIA EM SAÚDE

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Abstract

Objective: to describe the experience of discussing changes in the training process of a uniprofessional residency in the context of a pandemic in Brazil and worldwide. **Method:** descriptive study, of the experience report type carried out by specialized nurses in Mental Health. The implementation of the hybrid teaching model (remote and on-ground classroom) as a tool to continue the teaching and learning process in the context of the pandemic. **Results:** considering the pandemic context, professional practice was restricted to remote activities or total isolation, planning was necessary to identify which of these professionals would be available to develop their themes considering this new scenario. Through teaching technologies and active methodologies, the maintenance of the sharing of theoretical content was maintained and the training process was not interrupted. **Conclusion:** the transition process to the hybrid model was achieved, and it should be noted that many challenges and potential permeated the execution process. Furthermore, the participation and interest of residents in the use of electronic resources in the training process was evident.

Keywords: Active methodologies; Hybrid teaching; Multiprofessional Residence; Psychiatric Nursing; Mental health.

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Resumo

Objetivo: descrever a experiência da discussão das mudanças do processo formativo de uma residência uniprofissional frente ao contexto pandêmico no Brasil e no Mundo.

Método: estudo descritivo do tipo relato de experiência realizado por enfermeiros especialistas em Saúde Mental. A implementação do modelo de ensino híbrido (aulas remotas e presenciais), como ferramenta de continuidade do processo de ensino e aprendizagem no contexto da pandemia.

Resultados: considerando o contexto pandêmico, o exercício profissional se restringiu à atividades remotas ou ao isolamento total, foram necessários os planejamentos realizados para a identificação de quais desses profissionais estariam disponíveis para desenvolver suas temáticas considerando esse novo cenário. Através das tecnologias de ensino e metodologias ativas a manutenção do compartilhamento do conteúdo teórico foi mantido e o processo formativo não foi interrompido.

Conclusão: o processo de transição para o modelo híbrido foi alcançado, cabendo ressaltar que muitos desafios e potencialidades permearam o processo de execução. Ademais, ficou evidente a participação e o interesse dos residentes na utilização de recursos eletrônicos no processo formativo.

Palavras-chave: Metodologias ativas; Ensino híbrido; Residência Multiprofissional; Enfermagem Psiquiátrica; Saúde Mental.

INTRODUCTION

The Multi/Uniprofessional Residency in Health was established with the purpose of training professionals in the immersion and daily experience of their profession, favoring the qualification and insertion of the individual into the labor market, especially in priority areas of the Unified Health System (UHS)¹⁻². Law 11.129, of 2005, regulates that Multi/Uniprofessional Residences are developed based on local and regional needs¹.

The residencies are characterized as a *lato sensu* postgraduate course, focused on the health education process, with a robust amount of practical hours. Setting up as a differential that enables professional training in the exercise of their function¹⁻³. In addition, the coordinators/tutors and preceptors are expected to address theoretical contents that encourage specialized training for professionals, based on academic content²⁻³. Until March 2020, in the Residency Program in Mental Health and Psychiatric Nursing at the University of São Paulo (RPMHPN/USP), these concepts were taught in person, in a traditional expository format, following the schedule of the Pedagogical Political Project⁴.



In March 2020, the IX class of RPMHPN/USP began, comprising 08 (eight) professional nurses. However, at the end of April, due to the pandemic, it was necessary to reorganize the theoretical programming, thinking of new paths, in view of the recommendations for sanitary restrictions and prioritizations⁵⁻⁶. It is noteworthy that the pandemic context, in addition to establishing social isolation, shortened the transition to remote education⁵. This led not only to changes in the student-teaching bond, but it also impacted emotional issues between families, educators and students⁶. It is pointed out that not only because they are without social interaction, but because they identify inequalities in educational performance, bringing to light the responsibility of the training process to the teacher, evidencing the need to plan activities to exercise a favorable learning environment⁷⁻⁸.

Faced with the need to adapt to the new, ordinance n^o. 343 published on March 17, 2020, provides for the replacement of in-person classes by classes in digital media for as long as the pandemic situation lasts⁹. The measure is valid for 30 days or as long as the pandemic situation lasts. The ordinance states:

Art. 1 To authorize, on an exceptional basis, the replacement of on-site subjects, in progress, by classes that use information and communication means and technologies, within the limits established by the legislation in force, by a higher education institution that is part of the federal education system, what art. 2 of Decree No. 9.235, of December 15, 2017 (p.01)⁹.

The training process in multi/uniprofessional residencies in the health area, similarly to other levels of education, had to be revised⁵. The traditional teaching model is based on banking education, with students in the role of listeners, however, this type of teaching does not meet the contemporary training process, so it is essential to introduce innovative methodologies that encourage the participatory teaching process⁷⁻⁸.

In this way, the hybrid teaching model was implemented in this course, which is the teaching modality in which synchronous (online meetings in real time) and asynchronous (non-simultaneous study periods) are interspersed with distance learning. student chooses his period of study), to face-to-face, and came up against the desire to improve the learning process¹⁰. The term hybrid can be defined as:



From the Greek 'hybris', whose etymology refers to outrage, corresponding to a miscegenation or mixture that violated natural laws[...]. The word refers to what is “originating from different species”, mixed in an anomalous and irregular way. This etymological origin was responsible for the fact that words such as irregular, anomalous, aberrant, abnormal, monstrous, etc. are considered synonymous with hybrids. Hybrid is also what participates in two or more sets, genres or styles. A hybrid is the composition of two different elements anomalously joined to create a third element that can have the characteristics of the first two reinforced or reduced (p.01)¹⁰.

This transposition so quickly was challenging, keeping active the promotion of theoretical contents, as well as stimulating and adapting the subjects to the new model. These changes led the professionals involved to seek specific training for this learning model, as well as resources in technological applications and programs that made these distance meetings interactive and dynamic⁵.

In this perspective of changes, introduction of the hybrid and development of new knowledge, the “actives methodologies” are very important, since, in essence, they are related to the construction of significant knowledge⁷. Furthermore, they aim to develop the student's autonomy and protagonism in their educational trajectory. In this context, students play an active role in the teaching-learning process, while teachers act as facilitators of this process^{7-8,11-12}.

The interconnection of new information, with meaningful learning, facilitates the application of knowledge in complex activities, such as the understanding of users of health services⁷. At the same time, it should encourage the student to apply the information received in a practical way; it integrates, thus more easily and more completely, being valued according to its meaning¹³.

The application possibilities that the principles of meaningful learning bring are numerous and in different areas, including the training of health professionals, especially nurses, contributing to the cognitive gain of students^{8,13}. The act of learning must be a reconstructive process, when it allows the establishment of different types of relationships between facts and objects, triggers resignifications/reconstructions and contributes to its use in different situations¹⁴.

Thus, this study aims to share the experience of implementing the hybrid teaching model in a health residency, presenting its challenges and potential in the adaptations carried out.



METHOD

This is a descriptive study of the experience report type carried out by specialist nurses in Mental Health, linked to a Residency Program. The changes in the training process reported here took place in March and April 2020. This study explains the challenges and facilities arising from the adaptation to new teaching-learning strategies in the context of health residency, making teaching hybrid (face-to-face and remote) in time of pandemic.

It is noteworthy that the hybrid model brings as a premise to unite the traditional training process with online education technologies, in the context of face-to-face, remote meetings, as well as the use of Virtual Learning Environments (VLE)¹⁵. Hybrid teaching also serves the transition to a teaching modality combined with information technologies and learning processes that serve the current student^{5,8}. For a better understanding, the way in which the team was organized to carry out changes and adjustments to the program content was divided by major themes. It should be noted that the identification of potentialities and weaknesses was necessary to achieve the insertion of the hybrid model in the teaching and learning process of residents. The description of activities related to the transition to the hybrid model is described in the table below:

Table 1: Division of coordination activities for the implementation of hybrid education.

Assignment	Responsible	Development
Identify essential content	Technical coordinator and pedagogical coordinator	Prioritize the fundamentals of the actions of resident nurses in relation to the management of patients with mental disorders to first-year residents and actions of second-year resident nurses in mental health in the Health Care Network (HCN).
Identify applied Technologies	Pedagogical Coordinator	Search for free platforms for storing and disseminating content to residents.
Planning and logistics of face-to-face meetings	Technical coordinator	Identify the contents that would be necessary face-to-face meetings, request rooms or environments that meet health policy regulations, ensure security and content for residents in the process.
Content disposition	Pedagogical Coordinator	Creation of VLE classrooms, search for digital content and creation of environments for remote learning.

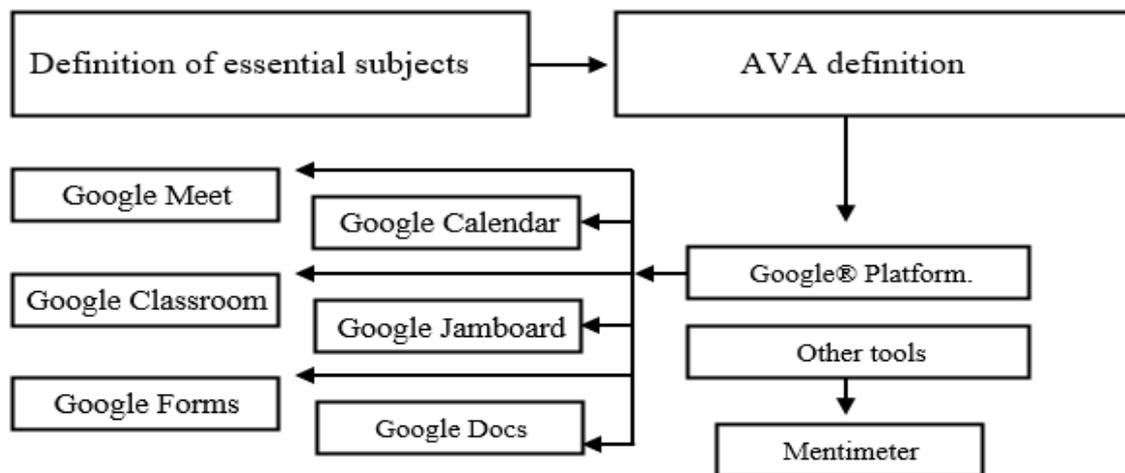


Access to content	Resident nurses in the first and second year of the program.	Access to content in VLE platform, carrying out activities and interactions when proposed and participation in face-to-face activities by invitation.
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Source: data from this study.

After defining the essential subjects, the team involved in the transition process to the hybrid model defined the VLE that would be used, and the Google® Platform was selected, which has multiple resources. Some of these were used for greater interaction among residents, such resources are identified in Figure 1.

Figure 1 - VLE and Resources used for interaction in the hybrid teaching model, 2021.



Font: data from this study.

The evaluation of the transition to the hybrid model and the participation of residents in classes was carried out by residents and teachers. The evaluation consisted of giving bad, medium or good grades for the following criteria: a) Effectiveness of the transition; and b) Interest/participation in classes. The instrument used to assess the participants consisted of a Likert-type scale (Figure 2), which is based on a study of the use of active methodologies¹⁶.

Figure 2 - Workshop evaluation form.



Font: Authors' personal collection, 2020



The study complied with ethical principles, in compliance with Resolution 510/2016 of the National Research Ethics Commission, which suspends the need to submit the project to the Ethics and Research Committee with Human Beings in situations of "activity carried out with the intention of exclusively for education, teaching or training without the purpose of scientific research, of undergraduate students, of technical courses, or of professionals in specialization"¹⁷.

RESULTS AND DISCUSSION

As we are in a mental health center, we have specialists in different areas to teach theoretical contents, contributing with their knowledge to build the RPMHPN/USP program. Considering the pandemic context, professional practice was restricted to remote activities and social isolation, thus, it was necessary to survey which professionals would be available to develop their themes and which online tools considering this new scenario. The above is in line with what was explained by Costa et al.¹⁸, who states that the training process of nurses has to be revised, taking into account remote teaching, and the identification of inclusive strategies for learning.

The adherence of collaborating professionals to teach the subjects was higher than expected, making it possible to carry out what was planned. Subsequently, there were two other challenges: 1 - prioritize the contents and identify which VLE would be used; 2 - define what resources would be needed to qualify and encourage interactivity. In view of this, it is essential that the VLE dialogue with the needs of students and teachers during teaching¹⁹.

Considering that the residency program has a workload of 5.760 hours, divided into 80% practical and 20% theoretical, distributing the hours corresponding to the theoretical content (theoretical content, case discussions, academic supervision, among others)¹, became a complex task. The notices of multi/uniprofessional residencies have shown that the programs are in any area of health, require exclusive dedication for two years, and the evidence of this uniqueness was the new SUS model of mental health care, which has resulted in the creation and implementation of new organizational arrangements²⁰.



Thus, initially, a survey was carried out of the subjects that could not have their contents interrupted, due to their commitment to the teaching-learning process. Disciplines stand out: “Psychopathology” and “Functions of nurses in clinical practice”, fundamental for the qualification of residents and corresponding to the Pedagogical Political Project⁴. According to Chaves et al. the pandemic context provided the opportunity for adaptation by professors, especially in nursing education, which is focused on practice and, therefore, presupposes the need to develop technical skills with the interaction of theory with practice²¹.

Faced with this problem, identifying/selecting a VLE that met expectations, with little or no financial resources, was characterized as an important difficulty. Since, there was a lack of knowledge about the functioning of the platforms, and fear of the project's non-concreteness. Thus, the coordination of the RPMHPN/USP program sought training so that the transition to the hybrid model could occur, as planned²².

Considering the institutional e-mail of the RPMHPN/USP program, being linked to the Google platform, it was identified that this could be a resource that would meet our needs during the transaction period. Not only because it is free, but also because of the tools available, in addition to having easy-to-use and understandable interfaces²³.

The first tool to be used was Google Meet, for synchronous and association meetings, Google Calendar was used to synchronize activities, making it possible to create alerts and at the same time ensure the organization/participation of residents and teachers in activities developed. The ferments proved to be effective for implementing the programmed content. Furthermore, it allowed real-time interaction, low impact with open cameras, the possibility for both the moderator and the administrator to share the computer screen, as well as chat with the participants and simultaneous recording²³ which was forwarded directly to the host user's email room, making future sharing with residents asynchronously feasible. It is pointed out that through the institutional email, Google Meet, did not allow us to perform some monitoring tasks, such as automatic attendance and stay list. Therefore, it is necessary to use another tool, Google Forms. This, at the beginning of each class, was accessed through a link, which was made available on the Google Meet chat, making it possible to create a spreadsheet of the frequency of residents.



Another advantage identified with Google Meet was the possibility of using other online interpersonal interaction strategies, such as Google Jamboard (interactive whiteboard that resembles a whiteboard and allows notes to be taken by the teacher and listeners of simultaneously)²⁴, and the Mentimeter (a tool that offers interaction resources through word cloud and questionnaires)²⁵. It is demarcated that such tools provided opportunities for the interaction of residents and made the classes more dynamic.

It is noteworthy that one of the challenges encountered with the Google Platform tools was the incompatibility with emails linked to other domains, preventing access to the tools. It is also pointed out that other challenges, such as the instability of the internet signal, the absence of devices that access the contents widely (since most residents accessed classes via mobile devices), are consistent with studies on adaptation in the remote teaching²⁶⁻²⁷.

With the success of experimenting with the aforementioned tools, we moved towards the preparation of the VLE, making content available for later consultation and also for those who, due to technical or operational instabilities in the connection, could not follow the class synchronously, thus creating an asynchronous space of activities²⁸.

Because Google Classroom is a new tool for those responsible for the transaction for hybrid teaching, it was necessary to view tutorials and read teaching materials that explained how the tool works. Mainly about the opening of the rooms, insertion of content by theme and posts of activities/materials²⁸. After the construction of the rooms, the residents were invited, allowing access to posted content.

To establish a form of quantitative assessment of the subjects, maintaining the formative assessment process carried out in the RPMHPN/USP program, characterized by a combination of elements of practice and theory, questionnaires were built on Google Forms. Such questionnaires were made available on Google Classroom through their links. It is highlighted that this form of assessment ensured the realization of feedback through individual and/or group discussions. In this perspective, Volpe²⁷, in his study of assessment methods, does not differ the remote or face-to-face factor, since the essence of the learning and feedback process is maintained.



Another feature was the use of Google Docs, through the Google Classroom, where residents could respond to activities and automatically generate a completion graph on Google Forms, as well as insert collective construction tasks as a way of securing learning. Google Docs also allowed the construction of spreadsheets and slides, so that the activities carried out by the teachers could be counted, and the construction of presentations by the residents, thus completing the teaching and learning cycle in the remote spheres of technology. It is emphasized that the Google platform proved to be very powerful, especially the Google Classroom tool, which helped both teachers and residents in managing classroom activities. It is noted that through this tool, teachers can create classes, distribute activities and give grades, all through the platform²⁸.

In the process of formation of residences, a fundamental activity is case supervision (spaces created for the resident to share in-service learning experiences). strategies to face the adversities of learning in service²⁹. Given the importance of supervision, we chose to establish weekly meetings, interspersed between remote (synchronous) via Google Meet, with the camera open so that we could have an effective exchange of actions and reactions by both residents and coordination, and in person. According to the literature, supervision in teaching brings immediate and immediate repercussions on health work processes, and it is up to the supervisor to manage the processes so that they occur under recommended conditions in line with the institutional mission²⁹.

On the part of residents, opinions regarding the quality of remote classes were divided, with fatigue (due to the extensive workload) and long period of screen use being punctuated, while keeping their eyes focused on the computer. The professors, for the most part, reported that the lack of interaction and the maintenance of the camera turned off on the part of the students generated a feeling of one-sidedness, as if while the residents understood all the content, they did not absorb any information.



The organization by the residents and good adherence to deadlines (according to the attendance and delivery lists of activities) are confirmed, made possible by the tools, and the importance of achieving a homogenization of knowledge among those involved in transition processes, such as the one described in this study, aiming at streamlining and effective in the process. This finding is corroborated by specialists in the technological field who describe how technological implementations require adaptations and training to obtain quality and effectiveness²⁸.

Finally, it is noted that the face-to-face activities were carried out within the safety standards established by the current legislation, in compliance with the health safety standards, happening only when the remote alternative could not be used, as in the case of realistic simulations. Since the beginning of the pandemic, we have been working in line with the resolutions SEDUC/2020/2021, which established norms for social distancing and for the resumption of classes and in-person activities in the teaching system of the State of São Paulo³⁰.

CONCLUSION

The transition process to the hybrid model was achieved, and it should be noted that many challenges and potential permeated the execution process. Furthermore, the participation and interest of residents in the use of electronic resources in the training process was evident, making it essential to carry out further studies on the motivated and unmotivated facts of the use of technological tools in training in health residencies.

It is confirmed that the expected results with this activity were achieved, since the RESMP/USP program made the transition from the traditional teaching model to the hybrid model, with good adherence by the residents. It is pointed out that the pandemic abbreviated the transition process that was already expected and those involved in the coordination of the residency responded adequately to this need.



It is demarcated that in the residency, in-service learning allows the resident to develop the practice in a critical/reflective way, with the provision of theoretical support being essential, thus becoming a fundamental part of the training process that cannot be interrupted. It is noteworthy that, during the transition, there was motivation on the part of participants and residents. In this sense, it is expected that this experience report contributes in general to the dissemination of the RPMHPN/USP and as a basis for further research, studies and practical applicability that deal with the subject.

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