

Use of digital technologies in interprofessional education: experience of PET-Health Interprofessionality

Uso de tecnologías digitais na educação interprofissional: experiência do PET-Saúde Interprofissionalidade

Uso de tecnologías digitales en la educación interprofesional: experiencia del PET-Saúde Interprofissionalidade

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REVISA

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RESUMO

Objetivo: Relatar a experiência do uso de tecnologias digitais, por um grupo tutorial do PET-Saúde Interprofissionalidade, durante o período de pandemia.

Método: Foram priorizadas as plataformas de comunicação, WhatsApp e redes sociais para discussão, construção e divulgação do podcast sobre a interprofissionalidade no contexto da pandemia. **Resultados:** Todo esse processo ocorreu com base num roteiro que foi construído coletivamente, discutido, adaptado, respondido e revisado, com distribuição de tarefas entre os integrantes do grupo tutorial, e com base nos referenciais orientadores dessa tecnologia digital e dos princípios da educação interprofissional. **Conclusão:** O uso do podcast como tecnologia digital mostrou-se uma potente ferramenta para a produção e divulgação de conhecimento, possibilitando a continuidade da dinâmica do trabalho interprofissional mesmo num cenário de pandemia.

Descritores: Educação interprofissional; Infecção por coronavírus; Tecnologia digital; Podcast.

ABSTRACT

Objective: To treat an experience report on the use of digital technologies, by a tutorial group from PET-Health Interprofessionality, during the pandemic period.

Method: As a method, communication platforms, WhatsApp and social networks were prioritized for discussion, construction and dissemination of the podcast on interprofessionalism in the context of the pandemic. **Results:** This whole process occurred based on a script that was collectively built, discussed, adapted, answered and revised, with the distribution of tasks among the members of the tutorial group, and based on the guiding principles of this digital technology and the principles of interprofessional education. **Conclusion:** The use of podcast as digital technology proved to be a powerful tool for the production and dissemination of knowledge, allowing the continuity of the dynamics of interprofessional work even in a pandemic scenario.

Descriptors: Interprofessional education; Coronavirus infections; Digital technology; Podcast.

RESUMEN

Objetivo: Informar la experiencia sobre el uso de tecnologías digitales, realizado por un grupo de tutoría de PET-Saúde Interprofissionalidade, durante el período de la pandemia. **Método:** Como método, se priorizaron las plataformas de comunicación, WhatsApp y las redes sociales para la discusión, construcción y difusión del podcast sobre interprofesionalidad en el contexto de la pandemia. **Resultados:** Todo este proceso se produjo en base a un guión que fue construido, discutido, adaptado, respondido y revisado colectivamente, con la distribución de tareas entre los miembros del grupo de tutoría, y basado en los principios de esta tecnología digital y los principios de la educación interprofesional. **Conclusión:** El uso del podcast como tecnología digital demostró ser una herramienta poderosa para la producción y difusión del conocimiento, permitiendo la continuidad de la dinámica del trabajo interprofesional incluso en un escenario de pandemia.

Descriptor: Educación Interprofesional; Infecciones por Coronavirus; Tecnología digital; Podcast.

Introduction

The end of 2019 was marked by the registration of the new coronavirus (2019-nCoV) that brought unprecedented social, economic, political, cultural and historical repercussions and impacts in several countries.¹ The disease was later called Covid-19, and soon became a global public health problem, being declared a pandemic and emergency in international public health by the World Health Organization (WHO).²

Faced with this pandemic scenario, all organizations of the State, the Market and civil society needed to adapt in order to continue their activities. Especially with regard to education, educational institutions, in several countries, canceled or postponed all of their face-to-face events, causing academic (teaching, research, extension) and administrative activities to be rethought, motivating them to build a new planning in the face of exceptional situations, including prioritizing activities aimed at tackling the pandemic, as this has become a banner of struggle for all organizations in society.

This fact also impacted on the activities developed by the Education through Work for Health Program (PET-Health / Interprofessionalism), an interinstitutional initiative involving the Ministry of Health, Ministry of Education, State and Municipal Health Secretariats and Higher Education Institutions, which aims at the integration between teaching-service-community, considering the principles of interprofessionalism, interdisciplinarity and intersectorality.³ This program proposes curricular changes in line with the National Curriculum Guidelines (DCNs) for undergraduate courses in the health area, in an articulated way between the Unified Health System (SUS) and educational institutions, promoting Interprofessional Education (EIP) and Collaborative Health Practices, through learning based on tutorial groups.

The idea of interprofessionalism, work and interprofessional education brought by the Program has been debated worldwide⁴, but it is recent in Brazil and, therefore, there is no organic practice in this sense, even though there are experiences in development.⁵

Information and communication technologies (ICT) have become essential for the continuity of the Program's activities, since, in the experience in question, it develops in various learning scenarios in the scope of health, with an emphasis on primary care, and yet in a hospital setting. The entire program is developed through the interaction between individuals, families, the community and health workers in these scenarios, through the exchange of knowledge, emphasizing the humanization of care and comprehensive care. However, in the face of the Covid-19 pandemic and the health recommendations for social distance, the program's activities, planned in the health services, were interrupted and it was necessary to implement creative strategies to guarantee the continuity of interprofessional education.

In a perspective of (re) planning activities, the use of ICT has become essential to guarantee the dynamics of work already under development, making it possible to replace face-to-face activities with remote activities. Such technological tools (digital artifacts) allow to reevaluate and think about new pedagogical practices, through the use of technological resources, assisting in the planning process of training actions within the scope of academic / professional development carried out in virtual spaces (cyberspace).⁶

Thus, many activities of the program have taken place virtually: virtual monthly meetings for planning, expressive use of WhatsApp and social networks (instagram), production of digital informational materials and production of podcast. The latter constitutes a form of publication of an audio program in digital media⁷, bringing debates and interviews on various topics in which information can be made available at any time of the day and geographic space. In view of this problem, the objective of this article is to report the experience of using digital technologies, in the actions of PET-Saúde Interprofessionality, in the context of the Covid-19 pandemic.

Method

It is an experience report on the development of activities carried out by a tutorial group from PET-Health Interprofessionality, with the use of digital technologies, in May 2020, during the Covid-19 pandemic period. Priority was given to digital technologies as virtual meetings through communication platforms, in this case, we opted to meet google; and the production of podcasts as a resource for the dissemination of the content produced

Initially, a study guide on Covid-19 was prepared, with the following elements as guiding principles for the discussion: definition of interprofessionality; interprofessionality in the dynamics of health work; specific, common and collaborative attributions of health professionals in a pandemic situation; communication strategies between health professionals and with the patient; possibility of interprofessionality to intervene in conflict resolution in the dynamics of health work. The script was answered in three subgroups, each formed by two students from different courses in the health field and two workers (tutors), thus ensuring a wide discussion between different backgrounds and professions.

For responding the script, the group was instructed to conduct virtual courses available on the internet, study protocols and various guidelines from organizations such as the Ministry of Health, the World Health Organization, the National Health Surveillance Agency (Anvisa) and municipal and state health departments. Health. In addition to the specific information about Covid-19, the references on Interprofessional Education (IPE) already studied and known by the tutorial group were also used. After the resolution of the script between the subgroups, there was a collective discussion, also in a virtual way, aiming at improving the responses and understanding of the aspects highlighted in the script. Thus, an important study product was obtained, resulting from collaborative work.

The choice of production of the material, also in podcast format, was made by understanding the educational power of this tool, favoring the production of collaborative work. Among other advantages, its use and construction motivates the teaching-learning process, helps in the different learning rhythms

of the group members, requires careful study of the information to be disseminated and can be used several times to favor the understanding of the content. Therefore, it has specific and differential attributes that can be combined with other methods to improve learning.⁸

For the production of the podcast, from the script previously answered, a new script was defined based on technical guidelines⁹ for the production of this type of digital material, maintaining the previously mentioned guiding axes. Thus, the podcast was entitled Interprofessionality in the context of the pandemic and aimed at students and health professionals. As a production dynamic, we opted for the debate between students and professionals from different areas of health education, carried out by a mediator (student), with a total duration of 20 minutes.

The audios of the interviewees and the mediator were sent for review and comments by the teachers (tutors) until they were judged as suitable for the podcast. In this sense, the following were observed: coherence of the speeches with the established script, correct pronunciation of the words, attributed intonation, disturbance or not of the audio with external noises, cuts and / or speech extensions, time control and background soundtrack. Only after the final opinion of the tutors, did the students responsible for the edition receive the audios of the others, in MP3 support, for editing in the Program program (@petsaudeinter), social networks and WhatsApp, using Audacity version 2.4.1. The final product was made available on an audio storage platform (spotify) and the access link was made available through instagram with material sharing for as many people as possible.

After the production of the podcast itself, all members reported the experience of producing this digital material, answering, in writing, three questions: How was your experience in using digital technologies to create the podcast? What difficulties and / or facilities were encountered for the production of digital material (podcast)? How do you assess the continuity of the activities of the PET-Health Interprofessionality Program with the use of digital technologies? Responses were sent by email to the tutors to proceed with the content analysis.

Results and Discussion

This experience allowed us to verify that the use of digital technologies for the production of the podcast was a very positive didactic resource that allowed the members of PET-Health Interprofessionality to see advantages in the process of building knowledge, as can be seen in the statements of the members:

The use of digital technologies has made it possible to streamline learning and knowledge sharing, not only among students and tutors, but for society. It became interesting, as knowledge was not restricted to a community where we performed our activities. (Pharmacy student)

The podcast appears as an alternative technology tool quite effective to be used in the transmission of information and to assist effectively in the learning process, especially in this period of pandemic, when most of the activities are being carried out on online platforms. (Dental student)

The speeches reveal that the use of the podcast as an educational tool can enhance teaching strategies as they increase knowledge sharing and encourage increased interest in learning. This finding is consistent with authors⁸ who highlight the educational use of the podcast as an inducer of greater interest in learning, since it is a different teaching and learning strategy in the classroom; in addition to being a resource that adapts to different learning rhythms of students and enables learning inside and outside the classroom. Furthermore, the interaction between speaking and listening allows for more meaningful learning than the simple exercise of reading.

It was also possible to understand, from the reports, that the use of this tool enabled the development of elements of interprofessional education¹⁰, especially collaborative work and communication competence, both with regard to the search for the best communication strategy for work in team and also regarding the use of the most appropriate language for the audience for which the material to be produced was intended:

One of the competences [obtained] was effective communication between the group, even remotely, intermediated by a messaging application [whatsapp], aiming at alterations of the text [podcast script] and exchange of suggestions. [...] we were also asked for the ability to synthesize and criticize the text in order to improve the understanding of the listener. (Medicine student)

[...] This moment enabled the sharing of knowledge between students and professionals from different areas, and most importantly, we were looking for an answer that would fit the vision of several people into one. With respect to the opinions given by each participant, it was possible to find common sense that defined and summarized everyone's opinion. (Dental student)

Collaborative work, which occurs through the interaction of knowledge and skills between different professions¹¹, was also a principle of IPE achieved during the process of building the activity. To this end, it required the development of various forms of interaction between the participants, from the training of the subgroups to answer and discuss the questions previously elaborated, the selection of the research sources to be used and the definition of the task of each one. Therefore, there was an adequate understanding of interprofessional work.

Digital technologies have the potential to introduce a new perspective in the teaching-learning processes in which the “students” stop being mere spectators to assume a more active and participatory role.⁶ In this sense, the conditions created in the production of the podcast seem to have been a very valid option for this purpose and this was reported by the participants:

As I still did not have the experience of building a podcast, I felt challenged and I needed to become aware of the need to be more curious to explore new technologies [...] and thus, not to remain accommodated with the usual methodologies. (Pharmacy student)

[...] it was a great experience, stimulating us not only to exercise our competences and skills but also to learn new ones. This showed that we are adaptable and that physical barriers to distance will never be able to overcome the power of teamwork and collaboration in any context. (Medicine student)

Members reported satisfaction and exceeding expectations with the use of the podcast and other digital technologies for the production of knowledge, highlighting positive aspects such as: the flexibility of producing the material according to the availability of time, autonomy to edit the material, possibility of several revisions before the presentation of the final product and reinforcement of the principles of interprofessionality. However, there were also difficulties for the production process, in general, related to the initial lack of knowledge of the tool and its editing resources. These aspects were overcome with the use of other digital resources such as tutorials on YouTube.

Final Considerations

The experience in the production of the podcast revealed, for the entire tutorial group, that the virtual space (cyberspace) and digital technologies are powerful didactic tools, as they enabled an effective teaching-learning process, even in a remote context, given the scenario of pandemic, ensuring the continuity of PET-Health Interprofessionality activities and the fulfillment of its objectives.

Such experience also generated a movement to relearn and reassess the conceptions of training and qualification of the teaching-service-community integration processes, given the opportunities presented by digital technologies. In other words, it was possible to study and discuss among different professions on a specific and highly relevant topic in the global health context; produce knowledge and content in a cooperative, critical, reflective and interactive way, reinforcing the principles of interprofessionality, such as: clarity of roles, team functioning, interprofessional communication and collaborative work.

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References

1. Cascella M, Rajnik M, Cuomo A, Dulebohn SC, Di Napoli R. Features, Evaluation and Treatment Coronavirus (COVID-19). StatPearls [Internet]. 2020. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK554776/>
2. Sohrabi C, Alsafi Z, O'Neill N, Khan M, Kerwan A, Al-Jabir A, et al. World Health Organization declares global emergency: a review of the 2019 novel coronavirus (COVID-19). *International Journal of Surgery*. 2020; 76: 71-6. doi: <https://doi.org/10.1016/j.ijsu.2020.02.034>
3. Ministério da Saúde (BR). Secretaria de Gestão do Trabalho e da Educação na Saúde. Edital nº 10, 23 de julho 2018. Seleção para o Programa de Educação pelo Trabalho para a Saúde Pet-Saúde/Interprofissionalidade - 2018/2019. Brasília: Ministério da Saúde; 2018.
4. Costa MV. A potência da educação interprofissional para o desenvolvimento de competências colaborativas no trabalho em saúde. In: Toassi RFC, organizador. *Interprofissionalidade e formação na saúde: onde estamos?*

- [recurso eletrônico]. 1.ed. – Porto Alegre: Rede UNIDA; 2017. p. 14-27.
5. Parreira CMSF. Educação interprofissional no Brasil. In: Nuin JJB, Francisco E. Manual de educação interprofissional em saúde. Rio de Janeiro: Elsevier; 2019, p. 115-135.
6. Modelski D, Giraffa LMM, Casartelli AO. Tecnologias digitais, formação docente e práticas pedagógicas. Educ. Pesqui. 2019; 45 (e180201). doi: <http://dx.doi.org/10.1590/S1678-4634201945180201>
7. Barros GC, Menta E. Podcast: produções de áudio para educação de forma crítica, criativa e cidadã. Revista Electrónica Internacional de Economía Política de las Tecnologías de la Información y la Comunicación [Internet]. 2007; 9(1): 74-89. Disponível em: <https://seer.ufs.br/index.php/eptic/article/view/217>.
8. Bottentuit Junior JB, Coutinho CP. Podcast em educação: um contributo para o estado da arte. Congreso Internacional Galego-Portugués de Psicopedagogía: libro de actas. A. Coruña/Universidade da Coruña: Revista Galego-Portuguesa de Psicoloxía e Educación [Internet]. 2007: 837-846. Disponível em: <http://repositorium.sdum.uminho.pt/bitstream/1822/7094/1/pod.pdf>
9. Produção de podcasts. Tecnologias digitais aplicadas à educação. 2020. Disponível em: <http://uabmoodle.uefs.br/>
- 10 Nuin JJB, Francisco EI. Perfil de um programa de educação interprofissional: elementos-chave. In: Nuin JJB, Francisco E, organizadores. Manual de educação interprofissional em saúde. 1 ed. Rio de Janeiro: Elsevier; 2019. p.13-24.
- 11 Illingworth P, Sonya C. A review of the benefits of interprofessional education 10 years on. British Journal of Nursing. 2017; 26 (13): 1-6. doi: <https://doi.org/10.12968/bjon.2017.26.14.813>

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