

THE IMPACT OF THE COVID-19 PANDEMIC ON PRESENTIAL GRADUATION WITH REMOTE TEACHING OF EMERGENCY ALTERNATIVE

Raphaela Giviziez de Abreu Courradesqui, Maria Eduarda Gomes Machado Rodrigues, Gabryella Tuczynski Carneiro, Elizeu Silva Luiz, Daniel Almeida da Costa* and Rafael Moura de Almeida

UNIFAA, Valença, Brazil.

Received date: 23 January 2022

Revised date: 13 February 2023

Accepted date: 05 March 2023

*Corresponding Author: Daniel Almeida da Costa

UNIFAA, Valença, Brazil.

ABSTRACT

Introduction: In the year 2020, the COVID-19 pandemic emerged on the world stage and, with that, it was necessary to restructure society in all possible areas, and in the educational sphere it was no different. Remote classes, synchronous activities, virtual lectures, online symposiums have become the reality of countless students who, in order to maintain learning, have submitted to the new tools. However, challenges were present in this new scenario. Thus, it was necessary to discuss, in this experience report, the impacts generated by the emergency teaching alternative. Thus, the report aimed to evaluate the impact generated on graduation by replacing face-to-face classes with remote teaching, in addition to evaluating student satisfaction with the alternative of remote classes and the quality of remote teaching. **Methodology:** This is a descriptive study with a qualitative approach, in which a questionnaire with 12 statements containing five degrees of agreement was used, according to the Likert Scale, ranging from "totally disagree" to "totally agree", which was sent to students of the medical course at the University Center of Valença, Brazil who had their graduation affected by the pandemic. The students participation took place in accordance with the norms of the Research Ethics Committee. **Results and Discussion:** A total of forty-two students from the basic and clinical cycles answered the questionnaire, and in relation to the equivalence of learning with remote versus face-to-face teaching, 46.5% disagreed about learning in a similar way. A similar result was found in the statement about classes being similar in remote and face-to-face modes, with 48.8% of students completely disagreeing. Given this, it can be seen that the learning process was, in a way, compromised, and there was no ideal adaptation to these new tools, which produced important achievements for medical training. In addition, 51.2% agreed on the need to adhere to new study methods and 62.8% completely agreed that continuing remote teaching was the best alternative. This is because there are a number of factors involved, the main one being the delay in the professional training of students.

KEYWORDS: Medical education; online learning; COVID-19.

INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared the COVID-19 pandemic, the disease caused by the new coronavirus (SARS-CoV-2). The high virulence of the new coronavirus, associated with the lack of a scientifically proven effective treatment for the disease, led to the adoption of emergency preventive measures capable of protecting health and saving lives around the world, such as quarantine and social isolation.^[1] The need for social distancing, teaching and learning programs needed to be reassessed, so that, for the continuity of studies, especially for undergraduate students, the application of Information and

Communication Technology (ICT) was essential, in order to temporarily replace the physical spaces of the classrooms.

For some authors, distance learning is a democratic form of education, considering that it allows access to education by people in diametrically opposed positions in the world, provided that resources are available, such as a computer, for example, and a network of internet, in addition to the desire to learn. On the other hand, this teaching model can become somewhat boring and discouraging, as has been seen by many students, especially in the health area, in view of its application in

the context of the COVID-19 pandemic. Distance learning is a two-way communication technology, which can be massive, given that face-to-face interaction ceases to exist, so that teaching takes place through a series of resources that together provide learning by students of the graduation.^[2]

The closure of academic institutions, as well as the great challenge imposed on the global health system, are causes of a great impact on the number and time of training of health professionals.³ In addition, there were countless ways in which the pandemic affected education doctor and other health professionals, considering that practical classes, clinical internships, home visits and field work were suspended.

In this sense, it is questioned whether this new method can, in some way, negatively influence students' learning, since the emergency alternative is completely new in face-to-face graduation and little similar to the original format. In this context, the present study is justified by the need to understand the impact of emergency teaching on the training of health professionals and aim to evaluate how the replacement of face-to-face classes by remote teaching affected graduation, as well as to evaluate the students' satisfaction with the alternative of remote classes and the quality of remote teaching.

METODOLOGY

This is a descriptive research with a qualitative approach, in which medical students applied a questionnaire to groups of medical students from a university center located in the interior of the state of Rio de Janeiro, Brazil who had their graduation contents adapted to an online format during the COVID-19 pandemic period. Students from the basic and clinical cycles of the course were invited to participate in the study, which was shared via official groups of the respective classes on WhatsApp ®. It is noteworthy that, before sending the questionnaires, the study was submitted to the Research Ethics Committee, whose CAAE is 43632821.1.0000.5246.

The questionnaire (https://forms.gle/rF5ZSEaSoB6jUL6s6), carried out via Google Forms®, consisted of 12 questions containing five degrees of agreement - according to the Likert Scale - ranging from 1 (completely disagree) to 5 (completely agree) with assumptions that are capable of measuring students' adherence to the new system and its effectiveness. Data were collected and analyzed via Microsoft Office Excel with the aid of graphs.

In accordance with Resolution 466/2012, the Free and Informed Consent Term - TCLE was made available, through which the participants expressed their consent to participate in the research. The TCLE was placed in the first section of the questionnaire, so that the participants selected the option they wanted (I read and agree or

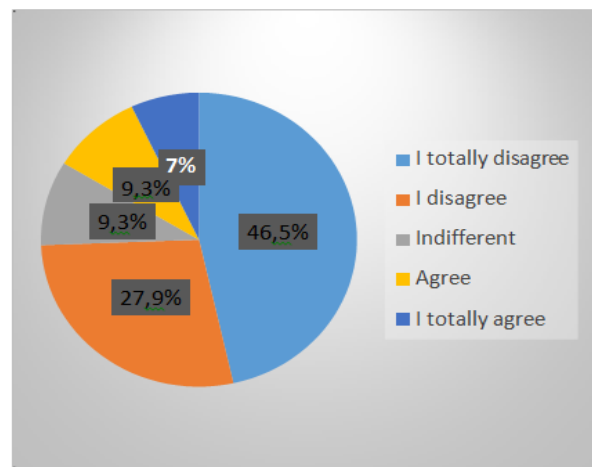
disagree), so that, to proceed to the next questions, it was necessary to agree with the term.

RESULTS

The study included 43 students enrolled in the UNIFAA Medicine course between the basic and clinical cycles, whose training was interfered with by the emergency remote teaching adopted during the pandemic.

Statement 1: In the alternative regime of remote teaching, I learn in a similar way to face-to-face classes.

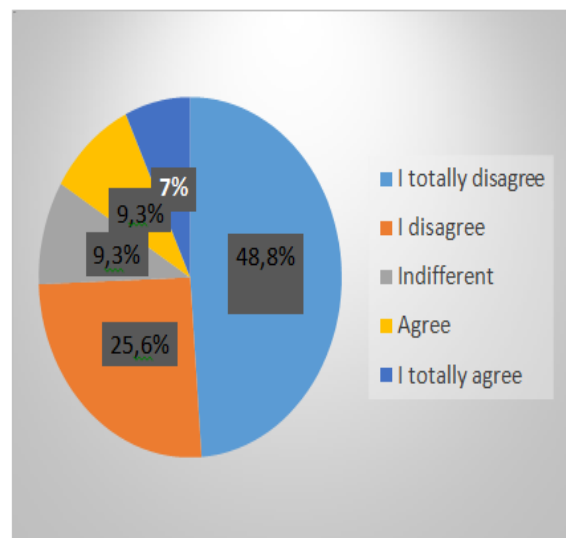
Regarding the statement above, 46.5% and 27.9% of the participants strongly disagreed and disagreed, respectively, while only 9.3% agreed and 7% strongly agreed.



Statement 1

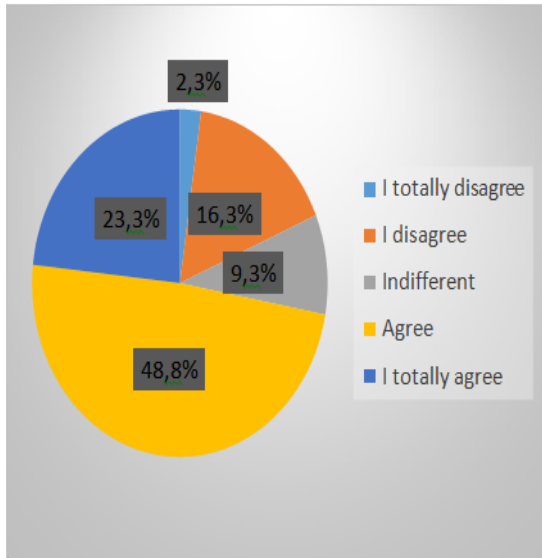
Statement 2: In remote teaching, classes are equivalent to face-to-face ones.

In this statement, 48.8% of the participants strongly disagreed and 25.6% only disagreed, while 9.3% and 7%, respectively, agreed and strongly agreed.



Statement 2

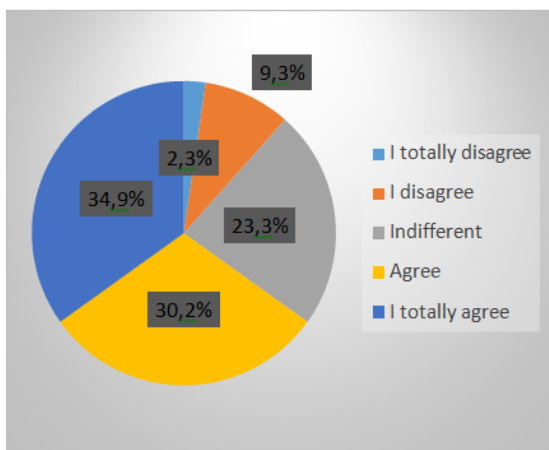
Statement 3: In distance learning I have difficulties to assimilate the contents. Of the participants, 48.8% agreed and 23.3% completely agreed with the statement and, on the other hand, only 16.3% disagreed, that is, they did not perceive difficulties in relation to the assimilation of the contents.



Statement 3

Statement 4: Internet connection problems are a hindrance to my performance.

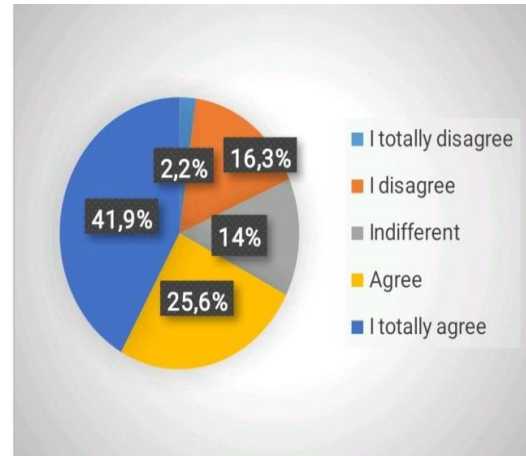
Regarding technical problems, 23.3% reported indifference, while 34.9% totally agreed, 30.2% agreed and 9.3% disagreed.



Statement 4

Statement 5: I feel that my academic training is being hampered by remote teaching.

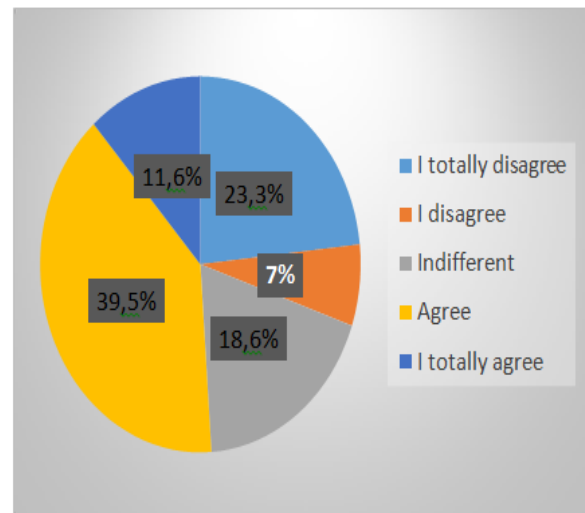
About the statement above, 41.9% of the participants totally agreed and 25.6% agreed and, on the other hand, 16.3% disagreed about the impairment in training.



Statement 5

Statement 6: The home environment affects my performance during online classes.

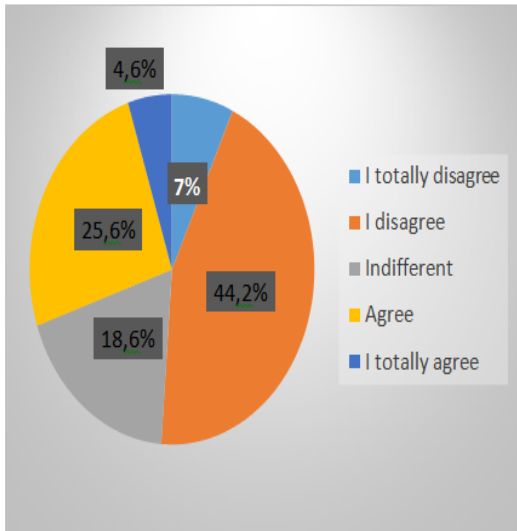
Regarding performance in remote classes, 11.6% and 39.5% completely agreed and agreed, respectively, that the family environment is harmful. However, 18.6% declared themselves indifferent, 7% disagreed and 23.3% strongly disagreed.



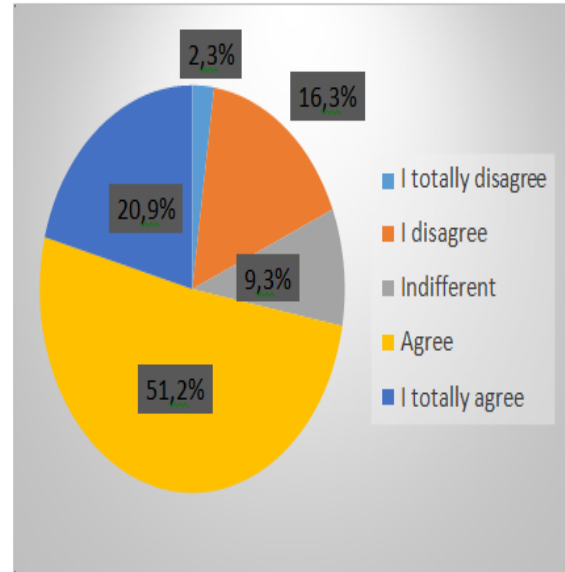
Statement 6

Statement 7: Teachers are adequately prepared for this new teaching method.

Among the participants, 7% strongly disagreed and 44.2% only disagreed with the statement, that is, they do not interpret teachers as adequately prepared. However, 25.6% agreed and 18.6% were indifferent.



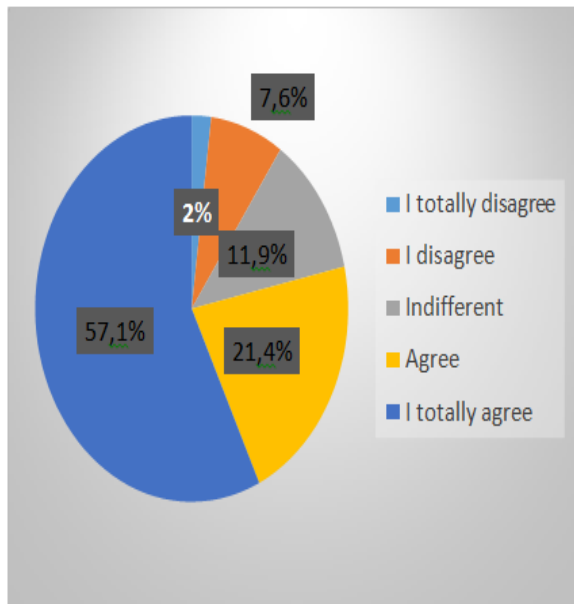
Statement 7



Statement 9

Statement 8: During remote live streamed classes I access social media more than during classroom classes.

Regarding the use of social media during remote classes, 57.1% strongly agreed and 21.4% agreed, which demonstrates a clear predominance in relation to the 11.9% who declared themselves indifferent, to the 7.6% and 2% who said they disagree and strongly disagree, respectively.



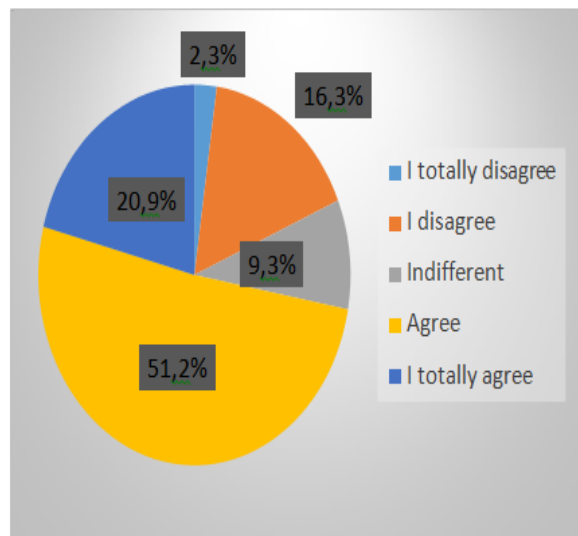
Statement 8

Statement 9: I had difficulties adapting to the new format of classes and assessments, which made me look for new study methods.

About the statement above, 51.2% agreed and 20.9% totally agreed, while 16.3% disagreed and 9.3% were indifferent.

Statement 10: I felt more active in the teaching-learning process.

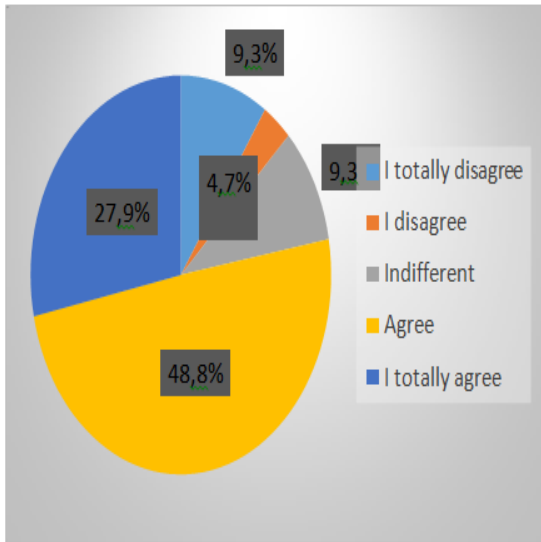
Of the participants, 34.9% and 37.2% strongly disagreed and disagreed, respectively, while 7% were indifferent and 18.6% agreed.



Statement 10

Statement 11: I am willing to assist suspected or confirmed cases of coronavirus.

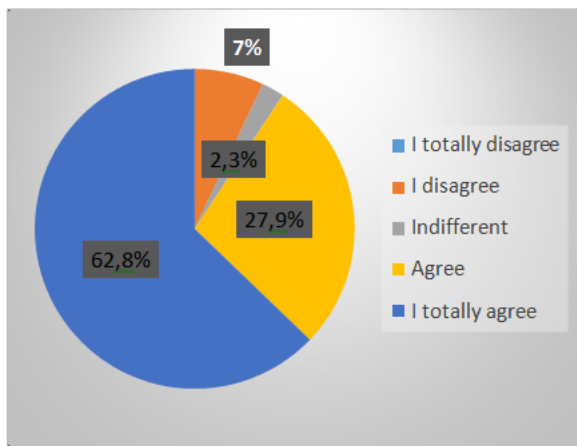
Regarding the above, 48.8% agreed, 27.9% strongly agreed, 9.3% were indifferent and 9.3% strongly disagreed.



Statement 11

Statement 12: Continuing teaching through emergency remote teaching was better than total interruption.

Regarding the emergency teaching alternative, 62.8% totally agreed and 27.9% agreed with its adoption. However, 7% disagreed and only 2% were indifferent. There were no participants who said they strongly disagreed.



Statement 12

DISCUSSION

Infection It is undeniable that, despite the difficulties related to emergency remote teaching, 62.8% of the survey participants fully agreed with the fact that this method was a better solution to the detriment of the total cessation of activities. This is because there are a number of factors involved, the main one being the delay in the professional training of students. Remote teaching is the only viable pedagogical alternative for medical education in the context of the COVID-19 pandemic, through the use of digital teaching platforms.^[4]

Thus, the pandemic caused by COVID-19 brought the

need to change many paradigms inherent in medical education and caused a sudden evolution in the use of ICTs - Information and Communication Technologies - within teaching, which made them leave from supporting actors to protagonists⁵. All this sudden change associated with emergency remote teaching, made students - in general - seek new study methods different from the previous ones, in order to adapt to the new context of exposing classes and applying assessments.

This was the reality of more than 70% of the students participating in the survey, who revealed the need to introduce new study methods during the pandemic. Added to this is the uncertainty regarding the quality of training - given that the difficulties inherent in emergency remote teaching, such as technical problems, inadequate teaching, difficulty in assimilating content, extensive and massive classes - have contributed considerably to this thought and, in addition, the closure of academic institutions had a great impact on the quality and quantity of training for health professionals.^[3]

In the affirmative “I feel that my academic education is being harmed with remote teaching”, approximately 67% of the survey participants judged it to be true. This conjures up a huge setback for the social body in question, considering that this assertion summarizes a major damage – if not the main damage – of this emergency alternative.

Furthermore, at the time of data collection, most students do not believe they learn in remote classes in a similar way to face-to-face classes. It was also found that almost half of the students revealed that remote classes are not equivalent to classes taught in person. According to these surveys, it is seen that the learning process was, in a way, compromised, and there was not an ideal adaptation to these new tools and, in addition, the interaction and interpersonal relationships between students and teachers was impeded by the social distance during the pandemic, which produced important effects for medical training, given that these relationships allow the exchange of ideas, knowledge and expertise.^[4]

The issue related to adaptation itself becomes a relevant subject to be placed on the agenda in discussions, since these adversities must be resolved so that this entire regime is not irreparably harmed. It is worth mentioning that the biggest negative points of remote teaching are: superficiality, isolation, distance between student and teacher and difficulty in perceiving the needs of students by teachers. That is, issues related to the existing interaction between student-teacher, which were undeniably harmed in the pandemic.^[6]

It was also found that about 65% of the students who participated in the survey agree that internet connection problems are an obstacle to performance, with some of the greatest difficulties being related to the use of technology itself.⁷ This shows that it is necessary to

rethink new possibilities and alternatives in order to eradicate this setback.

In another inquiry, it was reported that more than half of the students collaborating in the study have their performance in online classes impaired by the family environment in which they are inserted. This occurs, in part, because many do not live, under normal conditions, close to their family nucleus, that is, their study environment is usually far from their place of origin. In this way, when the current scenario changed and it was necessary to go home for good, it was necessary to reassemble the environment, readjust the habits and enter into the daily life of the family in which they are introduced. Such relocation is capable of bringing harm to the student's routine itself, since it is normal for everyone to have different schedules and currently there are collective activities of this family nucleus.

In another question, it was verified that more than half of the study in question claims to have difficulties in assimilating the contents in classes taught online. These setbacks can come both from personal issues, such as self-organization, concentration and planning, and from more external problems, such as the course of the classes themselves, lack of objectivity when teaching or even the environment in which the student is inserted.

Regarding the preparation of professors regarding adaptation to remote teaching, 37.2% and 34.9% of students reported, respectively, disagreeing and totally disagreeing, that is, most of them considered that professors – also affected by such a change – did not receive adequate preparation to conduct theoretical classes online.

Thus, a sudden change in the educational field in the face of the COVID-19 pandemic meant that teachers had to transpose their contents and adapt class models to online platforms, even with superficial or even non-existent preparation.^[8] Therefore, the provision of resources by the institution for the adequacy of these professionals, such as tutoring and adequate technological support, could considerably minimize a series of obstacles.

In addition, 57.1% of participants fully agreed with the statement related to greater access to social media during remote classes in relation to the context of face-to-face theoretical classes and 21.4% said they only agreed. That is, 78.5% of total voters access social media more during remote classes. Massive classes, extensive content, inadequate teaching, among other factors, can contribute to students' lack of interest and/or inattention at certain times or even during the entire lecture.

Thus, it is imperative to include interactive and active teaching strategies, so that students are more participatory at the time of the remote class and the teaching-learning process, which can minimize the effects mentioned above. This is a difficult task, as it

involves an expenditure of physical, psychological /mental and emotional energy.^[9]

In this context, 37.2% of the participating students disagreed with the statement related to the fact that they felt more active in the teaching process - which corroborates what was said earlier about the need to adopt more interactive and active methods during the administration of the tasks. remote classes during the pandemic, which makes student participation in classes more effective, which minimizes the possible negative effects on academic training, especially in a context surrounded by fears and uncertainties.

CONCLUSION

For the virtual teaching-learning method adopted by undergraduate health courses as an alternative to the COVID-19 pandemic to be effective and always contribute positively to the professional training of academics, it is necessary to analyze several factors, such as the preparation of professionals, both to teach classes and to evaluate students and encourage them to continuously seek knowledge, as well as the difficulties faced by students, whether technical, emotional, psychological or learning.

In this sense, based on the aforementioned factors and the analysis of the questionnaires and discussion of the results obtained, it was possible to perceive that in the context of the pandemic, the best alternative for the continuity of the graduation was the adoption of emergency remote teaching, which even with several aspects negative, prevented the total cessation of academic activities and the delay in the professional training of undergraduate medical students.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

CONSENT

All authors declare that „written informed consent was obtained from the patient (or other approved parties) for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editorial office/Chief Editor/Editorial Board members of this journal.

ETHICAL APPROVAL

Not applicable

REFERENCES

1. RODRIGUES B.B, et al. Aprendendo com o imprevisível: Saúde Mental dos Universitários e Educação Médica na Pandemia de Covid-19. *Revista Brasileira de Educação Médica*, 2020; 44(149).
2. OLIVEIRA E.S, et al. A educação a distância (EaD) e os novos caminhos da educação após a pandemia ocasionada pela Covid-19. *Brazilian Journal of*

- Development, 2020; 6: 53860-52867.
3. DEDEILIA A, et al. Medical and Surgical Education Challenges and Innovations in the COVID-19 Era: A Systematic Review. *In vivo*, 2020; 34(3): 1603-1611.
 4. SANTOS JUNIOR, V. B., MONTEIRO, J. C. S. Educação e COVID-19: As tecnologias digitais mediando a aprendizagem em tempos de pandemia. *Revista Encantar*, 2020; 2: 1-15.
 5. BARROS, L. C. M. et al. Teachers' perception of remote teaching in medicine during the pandemic by COVID-19. *Research, Society and Development*, 2022; 11(1).
 6. FERNANDES, C. W. R., RIBEIRO, E. L. P. Games, gamificação e o cenário educacional brasileiro. *Congresso Internacional de Educação e Tecnologias*, 2018.
 7. VERCELLI, L. C. A. Aulas remotas em tempos de COVID-19: a percepção de discentes de um programa de mestrado profissional em educação. *Revista Ambiente Educação*, 2020; 13(2).
 8. RONDINI, C. A. Pandemia do COVID-19 e o ensino remoto emergencial: mudança na práxis docente. *Interfaces científicas educação*, 2020; 10(1).
 9. VALENTE, G. S. C. et al. O ensino remoto frente às exigências do contexto de pandemia: Reflexões sobre a prática docente. *Research, Society and Development*, 2020; 9(9).