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Impacts of Emergency Remote Teaching on the Undergraduate Speech-Language Pathology Program: Perceptions of Faculty and Students

Impactos do ensino remoto emergencial no curso de graduação em Fonoaudiologia: percepções de docentes e discentes

Impactos de la Enseñanza Remota de Emergencia en la Carrera de Fonoaudiología: Percepciones de Docentes y Estudiantes

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Abstract

Introduction: The COVID-19 pandemic imposed remote learning, affecting higher education. This study analyzed its impact on the quality of life and academic performance of Speech-Language Pathology students and faculty at a public institution during social isolation. **Methods:** A retrospective, descriptive, cross-sectional study was conducted through online questionnaires with 112 students and 30 faculty members. Data were analyzed using descriptive statistics and thematic analysis, identifying key themes: technological challenges, mental health impacts, and adaptation to remote learning. **Results:** Before the pandemic, 67.86% of students and 60% of faculty already used technology, with increased use of Google Classroom and Google Meet during isolation. Regarding mental health, 91.07% of students and 76.67% of faculty reported a negative impact on organization and productivity, with frequent anxiety, stress, and fatigue. In terms of teaching, 70% of faculty adopted synchronous classes, 83.3% conducted assessments, and 86.67% managed to deliver theoretical content partially or fully. Student attendance ranged from 75% to 100%. **Discussion:** The results highlight the need for investment in technological

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LMDA: study conception, data collection and article design.
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training, emotional support, and pedagogical strategies in cases of social isolation, such as the COVID-19 pandemic. The role of student monitors and the use of active methodologies were essential for student engagement in classes. **Conclusion:** The study emphasized the importance of educational policies that prioritize interaction, engagement, and humanization. The pandemic experience can drive a more inclusive and adaptable education for the 21st century.

Keywords: Education; Distance; COVID-19; Speech, Language and Hearing Sciences.

Resumo

Introdução: A pandemia de COVID-19 impôs o ensino remoto, afetando a educação superior. Este estudo analisou seus impactos na qualidade de vida e no desempenho acadêmico de discentes e docentes de um curso de Fonoaudiologia em uma instituição pública durante o isolamento social. **Método:** Estudo retrospectivo, descritivo e de corte transversal, com aplicação de questionários online a 112 discentes e 30 docentes. Os dados foram analisados por meio de estatística descritiva e análise temática, os temas identificados foram: desafios tecnológicos, impactos na saúde mental e adaptação ao ensino remoto. **Resultados:** Antes da pandemia, 67,86% dos discentes e 60% dos docentes já utilizavam tecnologias, com aumento do uso de Google *Classroom* e Google *Meet* no isolamento. Quanto à saúde mental, 91,07% dos discentes e 76,67% dos docentes relataram impacto negativo na organização e produtividade, com ansiedade, estresse e cansaço frequentes. No ensino, 70% dos docentes adotaram aulas síncronas, 83,3% aplicaram avaliações, e 86,67% conseguiram oferecer o conteúdo teórico parcial ou integralmente. A frequência discente nas aulas variou entre 75% e 100%. **Discussão:** Os resultados destacam a necessidade de investimentos em formação tecnológica, suporte emocional e estratégias pedagógicas em casos de isolamento social como o ocorrido na pandemia da COVID-19. A atuação dos monitores e o uso de metodologias ativas foram essenciais para o engajamento estudantil nas aulas. **Conclusão:** O estudo revelou a importância de políticas educacionais que priorizem interação, engajamento e humanização. A experiência pandêmica pode impulsionar uma educação mais inclusiva e adaptável ao século XXI.

Palavras-chave: Ensino a Distância; COVID-19; Fonoaudiologia.

Resumen

Introducción: La pandemia de COVID-19 impuso la enseñanza remota, afectando la educación superior. Este estudio analizó sus impactos en la calidad de vida y el desempeño académico de estudiantes y docentes de Fonoaudiología en una institución pública durante el aislamiento social. **Método:** Estudio retrospectivo, descriptivo y transversal, aplicando cuestionarios en línea a 112 estudiantes y 30 docentes. Los datos fueron analizados mediante estadística descriptiva y análisis temático, identificándose los siguientes temas: desafíos tecnológicos, impactos en la salud mental y adaptación a la enseñanza remota. **Resultados:** Antes de la pandemia, el 67,86% de los estudiantes y el 60% de los docentes ya utilizaban tecnologías, aumentando el uso de Google Classroom y Google Meet durante el aislamiento. El 91,07% de los estudiantes y el 76,67% de los docentes reportaron impactos negativos en organización y productividad, con ansiedad, estrés y cansancio frecuentes. El 70% de los docentes adoptaron clases síncronas, el 83,3% aplicaron evaluaciones y el 86,67% ofrecieron contenido teórico parcial o totalmente. La asistencia estudiantil osciló entre el 75% y el 100%. **Discusión:** Los resultados destacan la necesidad de formación tecnológica, apoyo emocional y estrategias pedagógicas en situaciones de aislamiento. La participación de monitores y el uso de metodologías activas fueron esenciales para el compromiso estudiantil. **Conclusión:** La experiencia pandémica subraya la importancia de políticas educativas que prioricen la interacción, el compromiso y la humanización, impulsando una educación más inclusiva y adaptable al siglo XXI.

Palabras clave: Educación a Distancia; COVID-19; Fonoaudiología.

Introduction

The 21st century has witnessed one of the most significant crises in modern history: the COVID-19 pandemic. A highly contagious virus, with no known cure or effective treatment at its onset, rapidly spread across the globe, triggering an unprecedented health, humanitarian, social, and economic crisis. In Brazil, the first cases were reported in March 2020, primarily imported from Europe, with initial outbreaks in Rio de Janeiro, São Paulo, and Fortaleza. The pandemic not only exposed the fragilities of the healthcare system but also set off a cascade of interconnected crises—political, social, economic, environmental, and ethical—whose impacts continue to resonate throughout society.[1]

For healthcare professionals, the pandemic marked an especially challenging period. Social isolation, while essential to curb the spread of the virus, brought about abrupt and profound changes. Physical distancing disrupted not only human interaction but also professional, academic, and clinical activities, creating a climate of uncertainty and fear. Mental health across the population deteriorated significantly, with rising levels of anxiety, fear of contagion, job loss, and limited access to healthcare services, especially among already vulnerable groups.[1,2]

The Brazilian healthcare system was put to the test. The pandemic exposed managerial shortcomings and underinvestment in infrastructure, compromising the system's capacity to respond and exacerbating inequalities in healthcare access.[1] Meanwhile, in the educational domain, social distancing led to the suspension of in-person activities, resulting in the most extensive disruption of educational processes in modern history. It is estimated that approximately 70% of students worldwide were affected.[3] In Brazil, Ministry of Education Ordinance No. 343, issued on March 17, 2020, mandated the replacement of in-person classes with digital tools and platforms.[4]

However, the transition to emergency remote learning was far from straightforward. The lack of access to electronic devices and reliable internet connectivity deepened existing inequalities.[5] Faced with this scenario, educational institutions had to adapt quickly. At a public university located in Southeastern Brazil offering an undergraduate program in Speech-Language Pathology, in-person classes were suspended in March 2020, and instruction was immediately transitioned to technology-mediated remote learning. In this context, a committee composed of faculty members and students was formed to assess the impacts of this abrupt shift.

This study aimed to analyze the effects of emergency remote teaching on the quality of life and academic performance of students and faculty in a health-related undergraduate program. Through a questionnaire distributed to the academic community, the study sought to understand how the use of digital technologies shaped the educational experience during the period of social isolation. The findings not only shed light on the challenges faced but also provided pro insights that may inform strategies to mitigate the negative effects of remote education, promote more inclusive practices, and prepare educational institutions for future challenges. In an increasingly digital and uncertain world, understanding these impacts is essential for building a more resilient and equitable future.

Method

This is a retrospective and descriptive study with a cross-sectional design. The research was approved by the Ethics Committee in Research of the university (opinion nº 69466623.3.0000.5404).

In 2020, the members of the Undergraduate Teaching Commission of the Speech-Language Pathology course at a public higher education institution developed an online questionnaire, which was applied to both students and faculty. The goal was to assess the quality of emergency remote teaching, the mental health of the academic community, and to identify potential improvements in the adopted teaching model. The questionnaire responses were analyzed anonymously in order to evaluate the effects of remote teaching and the pandemic context on teaching activities.

Sample

The sample consisted of faculty members and undergraduate students from the first to the fourth year of the Speech-Language Pathology program at a public university in the state of São Paulo, including both male and female participants. A total of 112 responses from students and 30 from faculty members were collected. The distribution of students responses by year of enrollment was

as follow: six from 2016, 24 from 2017, 29 from 2018, 27 from 2019, and 26 from 2020.

Data collection procedure

In 2020, during the period of social isolation, both students and faculty were invited via email to complete the questionnaires prepared by the program's Undergraduate Education Committee. A 15-day deadline was established for submission. The questionnaire consisted of 11 questions for each group (faculty and students), including both open- and closed-ended questions. Its purpose was to assess the participants' quality of life and their experiences with remote learning (see Charts 1 and 2).

Chart 1. Topics in the questionnaire for the faculty of the speech-language pathology course

Topic	Details
Technologies Used	What digital tools for teaching were used before and during the pandemic.
Resolving Doubts	How students' questions were addressed.
Assessment Methods	What strategies were used to assess students' performance.
Class Attendance	What was the student participation rate in the classes.
Quality of Life	Impacts of social isolation on routine, including the division of academic and domestic responsibilities.
Theoretical Content Offered	Perception of whether the theoretical content offered was the same as in face-to-face teaching.
Performance of Student Monitors	Evaluation of the performance of student monitors.

Chart 2. Topics in the questionnaire for the students of the speech-language pathology course

Topic	Details
Technologies Used	What tools were used during remote classes.
Quality of Life	Impacts of the pandemic and the accumulation of daily tasks on well-being and study routine.
Assessment Methods	What strategies were used to assess students' performance.
Theoretical Content Offered	Perception of whether the theoretical content offered was the same as in face-to-face teaching.
Performance of Student Monitors	Perception of the performance of fellow students.

To ensure participant privacy in this study, the invitation and the informed consent form were sent individually via email, without the use of mailing lists that could allow identification of the invitees or access to their contact information by third parties. Each message had a single sender and a single recipient, thereby guaranteeing confidentiality.

Data analysis procedure

To analyze the questionnaire responses, we employed thematic analysis, a method originally developed in the field of Psychology and widely used in health research.[6-8]

This approach allowed for the identification of patterns of meaning (themes) within participants' narratives, organizing them into categories that reflect their experiences and perceptions of remote learning during the pandemic. The process followed these steps:

- Familiarization with the data: reading and immersion in the questionnaire responses and participant narratives;
- Generation of initial codes: identifying relevant excerpts in the data, such as "difficulties with technologies" and "engagement strategies";
- Searching for themes: organizing the codes into overarching themes and subthemes, such as "impacts on mental health" and "active methodologies";
- Reviewing themes: refining and adjusting the identified themes to ensure they accurately represented the data;

- Defining and naming themes: clarifying and labeling the themes, such as "technological challenges" and "adaptation to remote learning";
- Producing the report: writing the final analysis, including illustrative examples for each theme.
- The emergent themes were as follows:
- Technological challenges: difficulties related to the use of digital tools;
- Impacts on mental health: reports of anxiety, stress, and fatigue;
- Active methodologies: strategies employed to maintain student engagement;
- Adaptation to remote learning: the process of transition and resilience among faculty and students.

Descriptive statistics

A descriptive statistical analysis, including the calculation of means was conducted using RStudio software, version 4.4.2. This analysis aimed to compare the responses of students and faculty regarding the use of technologies, group activities, the influence of domestic routines, and other relevant categories during the period of remote learning imposed by the COVID-19 pandemic.

Results

Below, we present the average questionnaire responses along with the thematic analysis of the most frequently reported experiences, both organized according to the previously defined categories (see Charts 1 and 2).

Technologies used

Before the pandemic, 76 students (67.85%) reported already using some form of distance learning technology in their coursework. These tools were employed for various academic purposes, such as studying, writing reports, conducting research, and participating in discussion forums. Conversely, 36 students (32.14%) did not use these resources.

Among faculty, 18 respondents (60%) reported using distance learning technologies prior to the pandemic, while 12 (40%) indicated they did not.

The digital platforms used prior to the pandemic are listed in Table 1:

Table 1. Digital platforms used by faculty and students before the pandemic

Digital Platform	Faculty	Students
Email	12 (40%)	59 (52.68%)
WhatsApp	6 (20%)	34 (30.36%)
Other Platforms (Google Classroom and YouTube)	15 (46.67%)	14 (12.5%)

The digital platforms adopted by faculty for managing the teaching-learning process during the pandemic are shown in Table 2:

Table 2. Digital platforms used by faculty during the pandemic

Digital Platform	Faculty
Google Classroom	21 (70%)
Other Platforms (Email, Telegram, YouTube)	10 (33.3%)
WhatsApp	6 (20%)

The platforms used by students to follow remote classes during the pandemic are presented in Table 3:

Table 3. Digital platforms used by students during the pandemic

Digital Platform	Students
Email	79 (70.54%)
Google Classroom	66 (58.93%)
Other Platforms (WhatsApp, Telegram, YouTube)	49 (43.75%)

Doubt resolution channels

The support channels used by faculty to resolve students' questions are distributed as shown in Table 4:

Table 4. Support channels for resolving questions according to faculty

Channel	Faculty
Contact with faculty and monitors (Messages on Google Classroom and email)	38 (70%)
Synchronous classes (Google Meet and live sessions)	16 (53.3%)
WhatsApp and Telegram	4 (13.3%)

The support channels reported by students for resolving questions are presented in Table 5:

Table 5. Support channels used to resolve questions according to students

Channel	Students
Contact with faculty and monitors (Messages on Google Classroom and email)	50 (44.64%)
Synchronous classes (Google Meet or live sessions)	28 (25%)
Office hours (synchronous with monitors)	16 (14.2%)
Course peers	14 (12.4%)
Supplementary class materials (Recorded lessons and texts)	8 (7.1%)
Internet research (Articles, videos, and websites)	6 (5.3%)
Had difficulty or could not resolve questions	4 (3.5%)
WhatsApp and Telegram	3 (2.6%)

Assessment methods

Regarding student assessments in the courses offered during the pandemic, 25 faculty members (83.33%) stated they had implemented some form of evaluation, while five (16.66%) reported they had not yet administered formal assessments. As for the types of evaluations used, 11 faculty members (36.66%) cited the use of guided studies and exercise lists, while 10 (33.33%) identified written assignments as the primary evaluation method. Six (20%) reported using group assessments, four (13.33%) applied individual exams, and three (10%) indicated the use of other types of assessment activities.

When asked whether activities were designed to be completed in groups, the responses from both faculty and students are summarized in Table 6:

Table 6. Group activities proposed by faculty

Response	Faculty	Students
Yes	15 (50%)	111 (99.1%)
No	12 (40%)	1 (0.89%)
Intend to propose	3 (10%)	N/A

Legend: N/A = Not applicable

In open-ended comments, seven faculty members (23.3%) emphasized the use of seminars and thematic discussions as key tools to engage students. Four (13.33%) noted that clearly defining learning objectives had been crucial for guiding the learning process. Three (10%) implemented more structured evaluation strategies, such as guided studies and lesson plans. Two (6.67%) reported simplifying activities and grading criteria, though they did not specify how this was done. Additionally, two faculty members (6.67%) stated that they encouraged student collaboration during classes as a way to promote engagement.

Class attendance

Regarding student attendance during classes, faculty responses are presented in Table 7:

Table 7. Student attendance rate in classes

Student Attendance Proportion	Faculty
100%	6 (20%)
75% to 100%	16 (53.33%)
50% to 75%	6 (20%)
Less than 50%	1 (3.33%)
Not applicable	1 (3.33%)

Quality of life

When asked about the influence of domestic routines, 23 faculty members (76.66%) reported that their home environment affected their ability to organize and deliver course content, while seven (23.33%) stated there was no significant influence.

Among students, 103 (91.96%) indicated that their home routine influenced their ability to study, while 10 (8.92%) responded that it did not. The main difficulties reported included lack of concentration (89; 79.46%), lack of motivation (82; 73.21%), challenges in understanding the content (74; 66.07%), internet connection issues (57; 50.89%), and problems managing their schedules (53; 47.32%). Meanwhile, 15 students (13.39%) reported no particular difficulties. The main benefits cited were being able to attend classes from home (94; 83.9%), saving time on commuting (90; 80.35%), increased autonomy in learning (50; 44.64%), and financial savings (44; 39.28%).

Regarding mental health, all faculty members and 96 students responded as shown in Table 8:

Table 8. Mental health of faculty and students

Response	Faculty	Students
Good mental health	15 (50%)	18 (18.7%)
Anxiety, fatigue, and stress	8 (26.67%)	55 (57.3%)
Fluctuating emotions	3 (10%)	23 (24%)

Theoretical content offered

Among faculty, 14 (46.67%) reported delivering the full course content, while 16 (53.33%) indicated that content delivery was partial.

Student tutor involvement

The majority of faculty (19; 63.33%) and students (86; 76.78%) considered the work of student tutors to be essential. Difficulties related to the remote learning format were reported by six faculty members (20%) and 18 students (16.07%). Additionally, two faculty members (6.66%) and eight students (7.14%) stated that their courses did not include any tutors.

Thematic analysis / content

Thematic analysis revealed the most frequently reported statements among faculty and students for each theme:

Technological challenges: difficulties with digital tools

Faculty:

"The student tutor helps with posting classes on Google Classroom" (2 responses) (female professor, over 50 years old; male professor, between 35 and 50 years old).

"I rely on student tutors, who have been essential for managing the course and supporting the use of technological tools. One tutor joined more recently. Currently, I have five student tutors, who have been excellent" (female professor, between 35 and 50 years old).

Mental health impacts: reports of anxiety, stress, and fatigue

Faculty:

"Very anxious and insecure. I've been relying on reliable sources of information from the Speech-Language Pathology undergraduate program, the department, and other university bodies." (female professor, over 50 years old).

"I believe my mental health was more affected at the beginning, with all the demands arising at once. Now, I am in a calmer period as I have mastered remote teaching techniques" (female professor, under 35 years old).

"After the initial impact of the pandemic, I was able to organize myself and feel more at ease with remote activities. I consider my mental health to be good, and I have adequate mental and daily organization" (female professor, between 35 and 50 years old).

Students:

"Very unstable! Some days I feel okay, other days I feel really bad, unmotivated to complete tasks, and overwhelmed with fear and anxiety" (4th-year undergraduate student, between 20 and 25 years old).

"My mental health is poor; most of the time I feel stressed and overwhelmed by having so many things to do at once" (1st-year undergraduate student, between 18 and 20 years old).

"My mental health is not in a good place. Some days are very difficult to attend classes and study" (1st-year undergraduate student, between 18 and 20 years old).

Active methodologies: strategies adopted to maintain student engagement

Faculty:

"Students are preparing their final course project in groups, and every week we review the strategies they are using, address questions, and I suggest texts, official professional websites, blogs, etc" (female professor, between 35 and 50 years old).

"Yes. Emphasizing the importance of complementary activities such as reading and discussing texts and theoretical-practical activities" (female professor, over 50 years old).

"I have proposed pair activities so they can communicate via WhatsApp, followed by a collective feedback session after 20 or 30 minutes" (female professor, over 50 years old).

Students:

"Some activities are effective, but others would be better in person due to the interaction among students" (3rd-year undergraduate student, between 20 and 25 years old).

"The dynamic is working well, and the outcomes are positive, within the limits of what can be done" (3rd-year undergraduate student, between 20 and 25 years old).

"Although more challenging, it has been effective, and the results are good" (2nd-year undergraduate student, between 20 and 25 years old).

Adaptation to remote learning: transition and resilience of faculty and students

Faculty:

"I have been working longer hours" (male professor, 54 years old).

"Due to losing track of time and also the workload during certain days or periods, I've often worked at night and into the early morning hours correcting and commenting on assignments, recording lectures, responding to emails, etc" (male professor, between 35 and 50 years old).

"It is necessary to balance remote work with hou-

sehold tasks, such as preparing meals, etc" (male professor, between 35 and 50 years old).

Students:
"With the whole family at home, it's always more difficult to stay 100% focused on academic activities, which ends up affecting the learning process" (3rd-year undergraduate student, between 20 and 25 years old).
"I don't have access to a computer all day, and the environment isn't always suitable for studying" (3rd-year undergraduate student, between 20 and 25 years old).
"At times, there is noise from other residents, and I've had to adapt my study schedule accordingly because I can't study when it's noisy" (3rd-year undergraduate student, between 20 and 25 years old).

Discussion

One of the limitations of this study is the lack of data regarding the age range of participants. Since the focus is on undergraduate students, age variation could provide insights into different perceptions and levels of adaptation to remote learning. Students from distinct age groups may face specific challenges related to technology use, time management, and balancing academic responsibilities with personal obligations.

The data analysis, organized through thematic analysis, enabled the identification of patterns of meaning that reflect the experiences and challenges of both faculty and students during emergency remote education. The emerging themes were: "*technological challenges*", "*mental health impacts*", "*active methodologies*", and "*adaptation to remote learning*". The analysis of these themes offers a deeper understanding of student and faculty perceptions, as well as the practices adopted during the pandemic in a health-related undergraduate program.

Before the pandemic, 67.85% of students and 60% of faculty had already used some form of technology, especially email and WhatsApp. However, 32.14% of students and 40% of faculty lacked prior familiarity with digital tools, which led to initial difficulties in transitioning to remote education. This situation reflects a pre-existing educational gap that was amplified in the emergency context, as discussed by Cunha *et al*.,[9] who emphasize the need for adequate training for effective use of technology in education.

During the pandemic, the use of platforms such as Google Classroom and Google Meet intensified, yet the lack of prior experience negatively impacted the adaptation process for some participants. This issue was evident in statements such as "*I had never used online platforms before the pandemic*" and "*I had trouble adapting to video classes*" These situations highlight the differences between emergency remote teaching and planned online education,[10] and underscore how lack of preparation can compromise the quality of the educational experience.

These challenges underscore the need for investment in technological training for both faculty and students. While the pandemic accelerated the adoption of digital tools, it also revealed the urgency of ongoing capacity-building.[11] Bridging these gaps is essential not only in emergency situations but also as a permanent component of an education aligned with 21st-century demands.

Mental health emerged as a recurrent theme, particularly among faculty, who reported anxiety, stress, and fatigue. The increased workload, coupled with the need to balance domestic and professional activities, significantly affected participants' well-being. As presented by Wang,[12] crisis situations such as the COVID-19 pandemic tend to generate substantial psychosocial effects, including emotional exhaustion and reduced productivity—especially in contexts requiring abrupt adaptation, such as emergency remote teaching. In this regard, 91.96% of students and 76.66% of faculty stated that domestic routines negatively influenced their organization and productivity—a phenomenon García *et al*.[13] associate with the lack of clear boundaries between domestic space and work during social isolation.

This theme was illustrated by responses such as "*the pandemic brought a constant mental fatigue*" and "*the lack of face-to-face interaction affected my motivation*", reflecting the emotional challenges and loss of engagement caused by social isolation. These findings reinforce the importance of emotional support policies for the academic community, including psychological assistance programs and strategies to promote a balance between personal and professional life—measures essential for mitigating the negative impacts on mental health.[13-15]

The adoption of active methodologies was a key strategy to maintain student engagement. Among faculty members, 83.33% implemented evaluative activities such as guided studies, writ-

ten assignments, and group assessments. However, 16.66% had not yet conducted formal evaluations, which may indicate difficulties in adapting assessment methods to the remote context. There was also notable divergence in the application of collaborative activities: while 50% of faculty implemented group activities, 40% opted not to. This discrepancy may reflect both the difficulty of coordinating group work remotely and efforts to maintain student interaction. This theme was reflected in practices such as "*interactive classes with quizzes and debates*" and "*use of active methodologies to sustain student motivation*".

The use of active methodologies, including interactive synchronous classes and collaborative group activities, represents an attempt to maintain student engagement despite the distance. These strategies are fundamental to fostering active student participation in remote learning environments.[9]

Despite the challenges, both students and faculty demonstrated adaptability, aligning with studies that emphasize the importance of flexibility as an essential skill in scenarios of abrupt change, such as that brought on by the pandemic.[11] The majority of faculty members were able to offer the theoretical content in full or in part (86.67%), reflecting a significant effort to maintain instructional continuity despite the limitations imposed by the pandemic context. These data support the notion that adaptation to new technologies and methodologies by both students and faculty was crucial to sustaining educational activities.[10,11]

Students, in turn, displayed high levels of class participation (75% to 100% attendance), indicating considerable engagement despite the inherent difficulties of remote learning. This engagement may be attributed to students' capacity to adapt to new learning dynamics,[16,17] as well as to faculty efforts in creating more interactive and welcoming virtual environments.[18,19]

The role of student teaching assistants was deemed essential by 63.33% of faculty, standing out as a vital support for remote activities. This result highlights the critical role of institutional support in the success of remote education, as noted by authors such as Santos *et al*.,[20] who emphasize the need for support structures to facilitate the transition and implementation of innovative teaching practices. However, 20% of faculty reported challenges in the performance of student monitors, such as unfamiliarity with new methodologies, which may have limited their effectiveness in certain cases. This issue illustrates the importance of ongoing training and professional development for all individuals involved in the educational process, in order to address knowledge gaps and ensure more effective contributions.

Statements such as "despite the difficulties, I managed to adapt to the new format" and "students have been engaged and participative" reinforce the notion that, despite the obstacles, the academic community demonstrated remarkable resilience and adaptability. These accounts echo discussions by authors such as Selwyn,[21] who emphasize the importance of valuing individual experiences and efforts in the context of educational change, recognizing that learning is a continuous and collaborative process.

In the context of technology use in education, three faculty members (10%) highlighted the need to establish clearer rules for the use of these tools, pointing to the importance of guidelines that ensure the effective and safe use of digital resources. In open-ended comments, four faculty members (13.33%) reflected on the effects of the pandemic and how it has influenced their interaction with students, revealing challenges and transformations in the teaching and learning process.

These findings suggest that although technology has become essential in the educational landscape, gaps remain to be addressed—such as the establishment of clear norms for its use. In this context, the pandemic brought significant impacts that continue to shape pedagogical practices and the relationship between faculty and students. These reflections underscore the importance of adapting teaching strategies to an increasingly digital environment, without losing sight of the need for humanization and meaningful interaction in the educational process.

Conclusion

Thematic analysis revealed patterns that illustrate the main challenges and adaptations experienced by faculty and students within the context of remote learning at a public higher education institution. Themes such as "technological challenges," "mental health impacts," "active methodologies," and "adaptation to remote learning" underscore the need for investment in three key areas: technologi-

cal training for the effective use of digital tools, emotional support to mitigate the psychosocial impacts of emergency contexts such as the pandemic, and the development of pedagogical strategies that promote active student participation.

These findings highlight the importance of educational policies that foster interaction, engagement, and the humanization of teaching—particularly in emergency scenarios such as the COVID-19 pandemic. Humanizing education involves practices that consider the needs, emotions, and experiences of both faculty and students. In this context, the relevance of a welcoming and meaningful learning environment becomes evident. A welcoming approach is associated with an educational setting that promotes emotional well-being, respect, and active listening. A meaningful learning experience, on the other hand, connects course content with participants' real-life contexts, making learning more applicable through active methodologies and strategies that encourage autonomy and critical thinking.

These issues are part of a broader landscape shaped by contemporary demands in higher education, including the effective integration of digital technologies into pedagogical practices, the promotion of inclusion and accessibility, the adaptation to new hybrid teaching models, and the need to address the emotional well-being of faculty and students. In light of these transformations, initiatives that strengthen the resilience of the academic community and promote more flexible and inclusive education are increasingly essential.

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