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PERCEÇÕES DOS ESTUDANTES DO ENSINO SUPERIOR RELATIVAMENTE À EXPERIÊNCIA DE ENSINO REMOTO DE EMERGÊNCIA

PERCEPTIONS OF HIGHER EDUCATION STUDENTS REGARDING EMERGENCY REMOTE EDUCATION EXPERIENCE

PERCEPCIONES DE LOS ESTUDIANTES DE EDUCACIÓN SUPERIOR SOBRE LA EXPERIENCIA DE LA TELEENSEÑANZA DE URGENCIA

Andreia Pereira[1,2,3] *https://orcid.org/0000-0001-8765-6608*
Ana Paula Cardoso[3,4] *https://orcid.org/0000-0001-5062-4098*
Sofia Campos[3,5] *https://orcid.org/0000-0002-4696-3537*
Manuela Ferreira[3,5] *https://orcid.org/0000-0002-8452-2222*

[1] Universidade de Coimbra, Coimbra, Portugal
[2] CEGOT–Centro de Estudos em Geografia e Ordenamento do Território, Coimbra, Portugal
[3] Instituto Politécnico de Viseu, Viseu, Portugal
[4] Centro de Estudos em Educação e Inovação (CI&DEI), Viseu, Portugal
[5] UICISA: E - Unidade de Investigação em Ciências da Saúde: Enfermagem, Viseu, Portugal

Andreia Pereira – arapereira@outlook.pt | Ana Paula Cardoso - a.p.cardoso@esev.ipv.pt | Sofia Campos - sofiamargaridacampos@gmail.com | Manuela Ferreira - mmcferreira@gmail.com

Corresponding Author:
Andreia Pereira
R. Dom João Crisóstomo Gomes de Almeida
3500-843 – Viseu - Portugal
arapereira@outlook.pt

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RESUMO

Introdução: Durante a pandemia da COVID-19, para mitigar as repercussões da doença, foi necessário implementar medidas de confinamento, incluindo a transição para o ensino remoto de emergência.
Objetivo: Perante esta mudança drástica, foi pertinente analisar as perceções dos estudantes do ensino superior sobre o ensino remoto de emergência através dum estudo realizado no final do ano letivo 2020/2021.
Métodos: Estudo exploratório qualitativo, recorrendo à análise de conteúdo das respostas a uma pergunta aberta, solicitando aos estudantes que descrevessem as suas experiências de aprendizagem durante a quarentena. Foi inquirida uma amostra por conveniência de 438 indivíduos, representando 10% da população total da instituição de ensino superior em estudo.
Resultados: A experiência dos estudantes foi descrita, maioritariamente, em termos negativos, ao nível das categorias bem-estar e efeitos académicos, evidenciando a falta de motivação, aborrecimento e stress, bem como dificuldades na aprendizagem, carga de trabalho e pressão redobradas. Com menor ênfase, reconheceram a inovação e, ainda, as facilidades ao nível das rotinas diárias.
Conclusões: Estes dados permitem refletir sobre futuras práticas de ensino à distância e sobre a importância de manter a saúde mental e o bem-estar geral dos estudantes durante os períodos de disrupção. As limitações do estudo decorrentes desta abordagem metodológica devem ser cuidadosamente assinaladas, sendo inevitável algum nível de subjetividade.

Palavras-chave: ensino remoto de emergência; COVID-19; pandemia; ensino superior; experiência dos estudantes; bem-estar

ABSTRACT

Introduction: During the COVID-19 pandemic, it was necessary to mitigate the repercussions of the disease, and lockdown measures were implemented, including the transition to emergency remote education.
Objective: Given this dramatic change, it was found pertinent to analyze higher education students' perceptions about emergency remote education through a study conducted at the end of the school year 2020/2021.
Methods: Exploratory qualitative study, using content analysis as a technique for analyzing responses to an open-ended question, asking students to describe their learning experiences during quarantine. A final convenience sample of 438 individuals was questioned, representing 10% of the total population of the higher education institution under study.
Results: The students' experience was mostly described negatively in terms of well-being and academic outcomes, highlighting a lack of motivation, boredom, and stress, as well as learning difficulties, increased workload, and increased pressure. To a lesser extent, they recognized innovation and the convenience of daily routines.
Conclusion: These data allow us to reflect on future remote education practices and the importance of maintaining students' mental health and general well-being during disruptive periods. The limitations of the study arising from this methodological approach must be carefully pointed out, and some level of subjectivity is inevitable.

Keywords: emergency remote education; COVID-19; pandemic; higher education; student experience; well-being

RESUMEN

Introducción: Durante la pandemia de COVID-19 fue necesario mitigar las repercusiones de la enfermedad, por lo que se aplicaron medidas de confinamiento, entre ellas la transición a la teleeducación de emergencia.
Objetivo: Dado este cambio drástico, fue pertinente analizar las percepciones de los estudiantes sobre la teleenseñanza de emergencia, a través de un estudio realizado al final del año escolar 2020/2021.
Métodos: Estudio cualitativo exploratorio utilizando el análisis de contenido de las respuestas a una pregunta abierta que solicitaba a los estudiantes que describieran sus experiencias de aprendizaje durante la cuarentena. Se encuestó a una muestra de conveniencia de 438 personas, que representa el 10% de la población total de una institución de educación superior.
Resultados: La experiencia de los estudiantes se describió mayoritariamente de forma negativa en términos de bienestar y académicos, destacando la falta de motivación, el aburrimiento y el estrés, así como las dificultades de aprendizaje, el aumento de la carga de trabajo y la presión. En menor medida, reconocieron la innovación y la comodidad de las rutinas diarias.
Conclusiones: Estos datos permiten la reflexión sobre futuras prácticas de educación a distancia y la importancia de mantener la salud mental y el bienestar de los estudiantes durante los periodos de disrupción. Conviene señalar las limitaciones del estudio resultantes del enfoque metodológico, siendo inevitable un cierto nivel de subjetividad.

Palabras clave: teleeducación de emergencia; COVID-19; pandemia; enseñanza superior; experiencia de los estudiantes; bienestar

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INTRODUCTION

In late 2019, there were reports of an unusual pneumonia outbreak in Wuhan, Hubei Province, China. It was later discovered that a new type of coronavirus was responsible for these infections. The rapid spread of the virus and the lack of effective treatments posed a significant threat to public health worldwide, so on March 11, 2020, the World Health Organization (WHO) officially declared the situation a pandemic (WHO, 2020). In the following years, the world experienced an unprecedented crisis, completely transforming everyone's lives. Virus mitigation actions became inevitable, and measures were taken in different public spheres, such as education. Worldwide, schools and universities suddenly stopped face-to-face classes and transitioned to remote learning being practiced online through digital communication platforms (Godber & Atkins, 2021). Although distance learning has been around for a long time, the situation experienced during the lockdown was different and exclusively motivated by a generalized crisis. It was a non-premeditated, temporary solution, distinguishing itself from other types of distance learning, in which resources and methodologies are designed for that format. Another difference was the fact that creating an online course usually requires extensive planning in advance, which in this case was not feasible (Bozkurt & Sharma, 2020). The authors point out another important aspect, related to individual student choice. In other words, students could opt for face-to-face or distance learning in a normal situation. During the lockdown, they were left with no options, being forced to resort to this type of education to complete their academic years. Alongside this concern, numerous students lacked essential resources like computers or internet access at home, exacerbating the prevailing socio-economic disparities (Pokhrel & Chhetri, 2021; UNESCO, 2022).

In Portugal, in March 2020, schools and universities closed, shortly after the WHO declared the situation a pandemic. For around two years, virus containment measures were designed according to the epidemiological conditions. This led to disruptions in established practices in higher education institutions, requiring a significant effort from teachers and students to enable the academic year to be continued.

The situation of these students was demanding since, at a regular time, that is, outside the lockdown, the higher education experience goes far beyond expanding the academic curriculum and gaining specialized knowledge. This is a crucial phase with various expectations and new challenges for numerous young adults (Farias & Almeida, 2020). Various elements like increased autonomy, shifts in classroom dynamics, and new interpersonal relationships can significantly impact student adaptation (Almeida, 2007). With the pandemic, most students had to leave the campus and return to their families, not fully experiencing this period (Preetz et al., 2022). Many expectations fell apart as students missed out on socialization and academic experiences. In Portugal, various traditions characterize the higher education experience, such as first-year reception parties, academic parades, and Queima das Fitas (Ribbon Burning), to cite the most iconic, which were postponed for almost two years. For undergraduate students, this represents most of their time in a higher education institution since several degrees in Portugal are three years long. Other academic-related events were also canceled or postponed, meaning that many extracurricular activities that higher education institutions had to offer were canceled. In addition, the lack of treatment for a worldwide health problem, the number of deaths that were frequently mentioned in the media, and the necessity of daily changes may have exacerbated students' concerns, resulting in generalized fear. These necessary adaptations caused a dramatic shift and often impacted students' psychological well-being (Brooks et al., 2020; Mallhi et al., 2022).

According to WHO, well-being is a "positive state experienced by individuals and societies" (WHO, 2021, p. 10). Mental and physical health are crucial for maintaining sustainable communities, as evidenced in the United Nations Sustainable Development Objectives (SDGs), specifically in Goal 3, topic 3.4 (United Nations, 2025). Higher education students may be more susceptible to encountering symptoms of depression, anxiety, and stress because of shifts in both their academic and personal lives (Fernandes et al., 2018). During COVID-19, a research study conducted by Mallhi et al. (2022) centered on higher education students in Saudi Arabia, who exhibited significant levels of stress and depression. Further works are in line with these results and demonstrate cases during the pandemic where students started to feel a decline in their mental health (Alfayumi-Zeadna et al., 2022; David et al., 2022) or worsened pre-existing conditions (David et al., 2022). Positively, there was an increased investment in new educational tools and digital platforms to enable remote learning (Lockee, 2021).

With this, the primary aim of this research is to focus on understanding students' perceptions of their experience during the emergency remote education period. Students from the Viseu, Portugal region had the freedom to openly share their opinions. This work is grounded on the following research question: How did the emergency remote teaching experience affect students' well-being and academic life?

1. METHODS

The research adopted an exploratory, qualitative approach (Creswell, 2014) through a convenience sample of students enrolled in higher education courses at the Polytechnic Institute of Viseu. The study was developed in the ambit of the project "The learning performance in the context of distance learning: Perceptions of higher education students in times of pandemic," and it was approved by the Ethics Committee of the Polytechnic Institute of Viseu, on 07/01/2022, with the reference 01/SUB/2022. A time lag is observed between the reported data collection date and the date of the ethics committee's approval, since this study was

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initially conceived as an exploratory pre-test designed to develop the final data collection instrument. The study's planning also suffered some constraints due to the COVID-19 pandemic. Nevertheless, all ethical principles were followed, ensuring the voluntariness and anonymity of participants, and all received informed consent, subsequently resulting in the approval of the ethics committee.

1.1 Sample

The survey was conducted with 440 higher education students, resulting in a final sample of 438 individuals, representing 10% of the total population of the studied higher education institution. Data collection occurred at the end of the second semester of 2020/2021, through a convenience sample of undergraduate (88,5%) and master's (11,5%) degree students at the Polytechnic Institute of Viseu, Portugal, at the School of Education of Viseu, School of Technology and Management of Viseu, School of Nursing of Viseu, School of Agriculture of Viseu, and School of Technology and Management of Lamego.

Of the total valid sample, 75.4% were females, and 24.6% were males. 63.9% of the students attended the School of Education of Viseu, which is mainly attended by female students, explaining the disproportion of the sample in terms of sex. The majority were aged between 18 and 21 (68,03%) and were single (89,27%). Regarding the students' status, most were full-time students (84,1%), meaning they were enrolled in all curricular units of the academic year. It was also considered essential to know the conditions of students in their homes during the lockdown. Most answered that they always had access to a computer/tablet (85%), followed by often (11%). Three students answered that they never had or rarely had a computer. Concerning internet accessibility, 61% stated that they were always connected, followed by often (28%), sometimes (8%), and 3% answered that they rarely or never had access to the internet during the lockdown. Regarding difficulties in using online platforms, the results are more distributed. 54% said they rarely had problems in this matter, and 39% answered that they sometimes or often had issues. About their workspace conditions at home, 45% of the students said that sometimes or often they had proper conditions, 51% answered always had, and 3% said they rarely or never had space or working conditions. The following section describes in detail the research process.

1.2 Data collection instrument

The data were gathered through a questionnaire prepared for research purposes (Ghiglione & Matalon, 2001). The authors utilized solely data derived from an open-ended question, sociodemographic details, and information concerning students' home conditions during emergency remote education.

The open-ended question used for this study was: "Indicate three expressions that characterize your distance learning experience during the COVID-19 pandemic". Students replied using their own words or phrases.

1.3 Data analysis

The data analysis followed a three-phase process in accordance with the content analysis technique outlined by Bardin (2015). First, a floating reading of the student's words and expressions was conducted in order to carry out the necessary screening of responses and to constitute the document *corpus*, considering the rules of exhaustiveness, representativeness, homogeneity, and adequacy (Bardin, 2015). It should be noted that orthographic errors in Portuguese were corrected, and in the cases where students repeated the same expression, only one of them was considered. It is also pertinent to note that the translation process carried out may have incurred some loss of contextual nuance or tone.

In the second phase, the exploration of the material, the number of references was defined as the enumeration unit. The responses were analyzed through categorical analysis, and initially, 13 emergent categories were found using the NVivo 14 software. After discussion among the four independent judges, they were grouped into 4 main categories (Well-being; Academic Effects; Innovation; Routines' Perception). It should be noted that this categorization followed the principles of mutual exclusion, homogeneity, relevance, objectivity, and productivity, advocated by Bardin (2015). In the third phase, the results obtained were analyzed and interpreted, aiming at the defined goals. The answers were mostly words, although some sentences used by the students were preserved to enrich the discussion.

2. RESULTS

2.1. Word Frequency

In the initial analysis, the authors searched the students' most used words, using NVivo 14 software. In Table 1 are exposed the top 15 words based on their frequency of repetition. For a better reading, stemmed words were aggregated and presented in the column "Similar Words."

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Table 1 - Word Frequency Query with Stemmed Words

Word	Similar Words	Length	Count	%*
tiredness	tiredness	9	74	4.72
demotivation	demotivate, demotivated, demotivating, demotivation	12	71	4.53
boring	bored, boring	6	67	4.28
challenging	challenge, challenging	11	66	4.21
difficult	difficult	9	55	3.51
stressful	stress, stressed, stressful, stressing	9	40	2.55
inattentive	inattentive, inattentiveness	11	34	2.17
anxiety	anxiety	7	21	1.34
learning	learn, learned, learning	8	21	1.34
exhausting	exhausting, exhaustion	10	19	1.21
new	new	3	17	1.08
exhausting	exhausting	8	17	1.08
time	time, timely, times	4	17	1.08
adaptation	adaptability, adaptation	10	16	1.02
attentive	attentive	9	16	1.02

*Weighted percentage (%)

According to the results, tiredness (74) was the word most repeated by students, followed by demotivation (71), boring (67), challenging (66), and difficult (55). The discussion will further explain the relationship between these top-of-mind associations among higher education students.

2.2. Study Categories

The study identified four principal categories outlined in Table 2: Well-Being, Academic Effects, Innovation, and Routines' Perception:

- Well-Being relates to the students' condition, motivation, and resilience in facing challenges;
- Academic Effects gathers terms linked to learning, classes, engagement, satisfaction, workload, and interpersonal relationships;
- Innovation encompasses change, transformation, novelty, and procedural aspects;
- Routines' Perception relates to changes in students' everyday life changes, including data related to convenience, practicality, savings, and time adjustments.

Subcategories follow each one to narrow data heterogeneity and carry out a more detailed analysis. Table 2 also contains the word count of each group and its percentage over the total data collected. According to the results exposed, the categories with the most words associated are Well-Being (48.5%), Academic Achievement (35.4%), and the subcategories are Academic Motivation and Interest (25.5%), Mental Health (13.6%), and Satisfaction (10.8%).

Table 2 - Study Categories

Categories	References	%	Subcategories	References	%
Well-Being	567	48.5	Academic Motivation and Interest	298	25.5
			Mental Health	159	13.6
			Adaptation and Resilience	110	9.4
Academic Effects	414	35.4	Classes	111	9.5
			Satisfaction	126	10.8
			Personal Interactions	56	4.8
			Engagement	69	5.9
			Workload	52	4.4
Innovation	110	9.3	Change and Novelty	57	4.9
			Process and Improvement	53	4.5
Routines' Perception	79	6.8	Convenience and Safety	49	4.2
			Time Management	20	1.7
			Economy and Savings	10	0.9
Total	1170	100		1170	100.0

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Following this analysis, a more detailed examination of each category was conducted, focusing on the words more frequently mentioned to describe their remote learning experience during the lockdown period. In the Well-Being category, the words with the most repetition were tiredness, demotivation, boredom, challenge, stress, anxiety, exhaustion, adaptation, and discouragement. This category also groups the most cited words overall, as verified in Table 1 (tiredness, demotivation, and boredom).

In the Academic Effects category, the words with the most repetition were difficult, inattentive, learning, pressure, attentive, work, bad, and distraction.

In the Innovation category, the words with the most repetition were different, new, innovative, experience, and internet.

The most repeated words in the Routines' Perception category were time, ease, and practical. Word clouds were generated for each category to visually represent these findings. These word clouds showcase words with the highest frequency of repetition through larger font sizes and bold formatting, while words with lower repetition appear smaller and with less emphasis. As previously performed, stemmed words were grouped, the minimum length of each word was three characters, and only the 50 frequent words were used for a better reading of the clouds. In Figure 1, panels a, b, c, and d present these results.

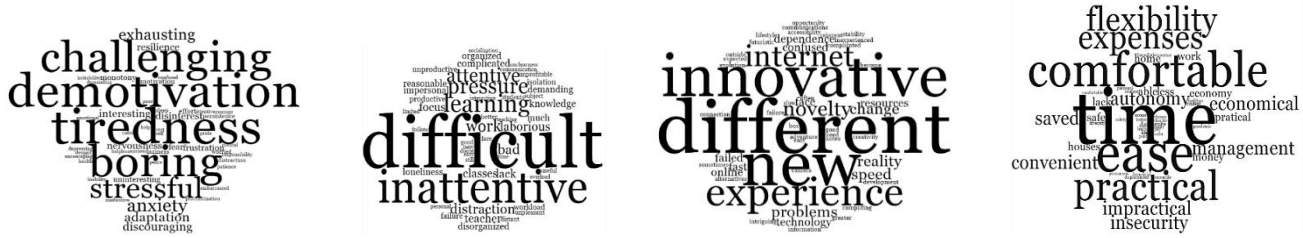

Figure 1- Word Clouds (a) Well-Being; (b) Academic Effects; (c) Innovation; (d) Routines' Perception

3. DISCUSSION

The study's findings provided rich outputs about how students perceive their experiences during the COVID-19 pandemic. Four major categories emerged from the content analysis, and could be represented by word clouds and detailed by frequency analysis. The first emphasizes the main challenges students encountered that negatively impacted their overall well-being, particularly their mental health, because of isolation, worry, stress, and anxiety, among others. The quality of remote education and the learning environment were included in the category of Academic Effects. The innovation category provides information regarding novelty and the benefits and setbacks of the adaptation to digital education. Finally, students' personal and academic time management and the financial consequences of emergency remote education are reflected in Routines' Perception.

3.1. Well-being

During the pandemic period, students experienced feelings of exhaustion, discouragement, irritation, insecurity, anxiety, worry, and tiredness with greater intensity (Carneiro et al., 2024). People's mental health may have been severely affected by the pandemic lockdown (Brodeur et al., 2021).

The data presented in Table 1 shows that the word with the highest number of repetitions is tiredness, which is similar to the word exhausting, also in the table. Tiredness and physical fatigue have been identified in previous studies (Becerra et al., 2022; Labrague & Ballad, 2021) and have been linked with different causes such as increased electronic device usage (Pachiyappan et al., 2021), troubles in students' sleep patterns (Becerra et al., 2022), and lockdown fatigue (Labrague & Ballad, 2021). Lockdown fatigue signs may show up as feelings of sadness, reduced motivation, fatigue, and heightened challenges in maintaining attention (Australian Psychological Society, 2020). Students in this study also point out several of these symptoms: demotivation and inattentiveness with significant repetitions.

Furthermore, demotivation, boredom, anxiety, and stress were associated by students with the emergency remote education experience, with a high number of repetitions, which is not surprising, considering the crisis experienced. These results suggest a possible deterioration in students' well-being, specifically their mental health, academic and financial challenges (Karing, 2021), among other stressors. This is in line with the results of a large review study carried out by Brooks et al. (2020) that reported negative psychological effects, including post-traumatic stress, confusion, and anger. According to these authors, "stressors included longer quarantine duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma" (p. 912). The word challenging and similar words also present various repetitions and can be understood negatively or neutrally since we do not have enough context in the results.

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3.2. Academic Effects

The pandemic-related stressors served as a major impediment to students' motivation, concentration, and pedagogical interaction and workload perception (Ali et al., 2022). Some possible difficulties identified in foreign countries are related to the lack of internet accessibility, absence of face-to-face interaction, less socialization, and delays in response time (Adnan & Anwar, 2020). Indeed, the data associated with pedagogy, teaching-learning methodologies, satisfaction, relationships with colleagues, and workload tend to be negative but not as expressive as in Well-Being. In the main category Academic Effects (35.4%), the subcategory classes have the highest number of words, including learning, knowledge, teacher, class, failure, productive, unproductive, and disorganized, to cite the ones with the most repetitions. Some students even mention full sentences such as "Nothing is learned, many hours in front of the computer, there is a lack of dynamics in classes", "I learn well, but not as much as face-to-face", "(…) lack of support from teachers", "There is not much feedback in the teaching-learning process between teacher and students", "Learning had gaps in the aspect that the quality of teaching is inferior", which could be linked to demotivation. On a positive note, some students stated, "Some teachers did everything to make this teaching more accessible", "Better understanding in class", "Understood the subject better, got better grades", indicating that for some, remote education was a positive experience. This is in concordance with the results of the study of Juntunen et al. (2022), which found that students who positively evaluated remote teaching were more engaged and had a more ambitious profile.

In the subcategories, satisfaction, engagement, and workload, the results also tend to be negative since the students mainly indicated the words difficult, inattentive, and pressure, respectively. Students demonstrate the constraints in this type of education, often reflected in their attention span and increased workload: "I think it is kind of useless because even you want to pay attention, a person gets distracted very easily because we are out of face-to-face classes; the fact that teachers give many tasks, one has to know how to manage their time well; otherwise we will have many papers and reports one on top of the other", "The ease of being inattentive in front of the computer or electronic device is so great that it is impossible for someone to spend 2 hours attentive in classes ...", "Increase workload", "Too much work and accumulated subjects". This result requires reflection on the teachers' methodologies and the higher education institutions' role in mitigating the effects of this drastic situation. Another aspect worth mentioning is the subcategory Personal Interactions, where students point out most aspects related to loneliness and lack of social interaction "it can worse the isolation," "impersonal," "personal is better for me," "(…) missed the physical closeness" "unattached," "lack of socialization," "little interaction with teachers," "distanced from colleagues." These testimonies are understandable since, during the lockdown, social distancing was an imposed measure to mitigate the virus. In addition, students did not have the opportunity to be in a classroom, in person, for a long time, which could bring feelings of loneliness.

3.3. Innovation

The COVID-19 pandemic forced educational institutions to adapt quickly to a new reality, shifting to remote learning. This provided a unique opportunity to respond to adversity, inspiring remarkable innovation and adaptation (Li, 2022). Also, this implemented alternative educational systems and assessment strategies (Pokhrel & Chhetri, 2021). As observed in Table 1, students recognize the innovative factor in emergency learning education since the words different and new are among the most cited words. In the categorical analysis, Innovation was subdivided into Change in Novelty and Process and Improvement; the first focused on transition and modernization in emergency remote education, and the second centered on procedures and improvements. In the word cloud (c) in Figure 1, the highlighted words express the top ideas of the main category, Innovation (9.3%) shows a tendency for words with a more neutral to positive connotation: "New experience (…) different from what I expected", "Speed," "New Knowledge", and "Thinking outside the box…". Some students also point out the benefits of "greater accessibility" and "uncomplicating the complicated". However, some students stated they sometimes had issues using online platforms. In addition, other difficulties beyond the control of students affected the quality of online teaching: "dependent on a good internet," "Communication often failed," "Internet that goes down when you need it most," and "some-times Internet problems," meaning that some students may have been penalized due to technological dependency or lack of resources and could emphasize socio-economic disparities. This is in line with the results of a literature review on the impact of the COVID-19 pandemic on teaching and learning (Pokhrel & Chhetri, 2021), which highlights the need for innovation, but also the disparity of affordability and accessibility for all learners of varied social and economic backgrounds.

3.4. Routines' Perception

A large and cross-sectional study (Fostervold et al., 2022) inquired "how students' self-regulation indexed by time management, procrastination, effort regulation, and time for independent study were affected by several factors including students' motivation, perceived stress, working conditions, and remote teaching" (p.1223). This found that students with higher levels of motivation had better time management and lower levels of procrastination; perceived stress was associated with higher levels of procrastination and lower levels of time management; and students who were dissatisfied with their physical environment were also less able to manage their time.

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In our content analysis, the category Routines' Perception (6.8%) is generally configured as heterogeneous, ranging from positive to negative aspects. In the Convenience and Safety subcategory, students refer to the comfort and safety of the emergency remote teaching experience, allowing them to access classes and pedagogical content from home: "I do not have to go to school facilities", "Safer due to the pandemic". This is in accordance with the results of Curelaru et al. (2022), which mention the benefits of remote learning, like comfort and accessibility, economy (saving time and money), and psychological safety. In the sub-category Time Management, students indicated different sentences, namely "(…) in my case turns out to be beneficial, as I work in shifts sometimes, I have to leave the night shift and come straight to classes", "easy as a student worker". This agrees with the results of the study of Juntunen et al. (2022), which found that students with higher levels of motivation, specifically task value, had better time management and lower levels of procrastination. Given these data, it appears that mainly working students saw benefits in online classes, giving them more time flexibility. Negatively, other students also expressed the constraints that remote learning placed on their personal lives, such as "Managing many situations at the same time (daughter, home, classes...)", "Lack of boundaries between work/personal life". These responses demonstrate the incompatibilities that many students felt during this period. In the case of students with children, the situation is even more complex. Many parents had to make a herculean effort to manage their personal and professional responsibilities during the pandemic (Maggio et al., 2021) since their children were at home and, in many cases, also attending remote classes. In addition to other stressors, these situations may have negatively impacted student parents' well-being, with increased stress and anxiety levels. In the third subcategory, Economy and Savings, the results are heterogeneous. While some students mentioned saving money, others noted spending it unnecessarily on maintaining academic and permanent residences, alongside continued payment of tuition fees: "expensive (we pay tuition, houses, expenses, and even more expenses in permanent housing, it becomes inhumane, we pay double or triple to be able to learn more and evolve)".

The authors find the results concerning, considering that this generation heavily relies on and is accustomed to technology. However, online classes fell short in substituting the school environment, teachers, and interactions with peers. These findings highlight the significance of academic life for higher education students, impacting not just their well-being and mental health, but also their engagement and performance. This is evident as they consistently express feelings of fatigue, demotivation, and boredom.

CONCLUSION

Emergency remote education was a unique experience, as it dramatically changed the daily lives of higher education students worldwide. It was a viable solution to end the school year, allowing students to attend classes and learn as much as possible. However, this disruption resulted in numerous consequences, leading students to characterize the experience as unfavorable. Worrying impacts are denoted in terms of well-being, specifically in mental health, as expressed by several answers reflected in the categories Well-Being and Academic Effects. The COVID-19 pandemic constituted a threat to the well-being of higher education students, due to the profound changes that occurred in academic life and, above all, social isolation during periods of confinement. In many cases, students' mental health was seriously affected due to isolation, feelings of uncertainty about the future, and increased levels of anxiety and depressive feelings.

Given these results, the data expressed by the students, already present at the discussion, show that there is a need for better preparation in the field of education in times of crisis and risk in Portugal. Higher education institutions need to address mental health as an urgent priority by establishing policies and specialized services. As practical implications, the authors suggest more training of teachers and schools since their role could be decisive in identifying alarming signs and appropriately directing these students to professionals. In periods of crisis and risk, and given the results of this study, it is suggested to introduce innovative methodologies that stimulate students' interest and motivation. With this, schools and faculties should include more preventive mental health programs to empower higher education students.

Despite the generally negative data, this work identified some positive aspects related to innovation and technologies applied to remote teaching, since it allowed them greater flexibility and time management. These data also reflect the benefits of the investment in active digital teaching-learning methodologies that could be an added value in higher education, when used appropriately. With this, it is suggested that the increase of B-learning methods since they encompass face-to-face and virtual learning settings and may promote a more dynamic and flexible education. As participants state that "The ease of becoming inattentive in front of a computer or electronic device is so great that it is impossible for someone to stay attentive for 2 hours in class...", these aspects must be considered in pedagogical planning.

Limitations to the study should be carefully considered. Primarily, the main constraint relates to the sample's disproportionality in sociodemographic factors, predominantly comprising female students aged between 18 and 21, single, and pursuing an undergraduate degree. A more balanced representation across various age groups would be valuable for a more comprehensive analysis. Another important aspect is the subjectivity that is always associated with qualitative studies (Sampieri & Torres, 2018). The lack of context can often condition the analysis of the judges involved.

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This study provides a platform for discussion. It aims to give some insights into future educational approaches and policies in a post-pandemic world. By highlighting the perspectives of students and clarifying their experiences, we hope to contribute to the ongoing dialogue regarding the future of higher education in an increasingly digital and unpredictable world. On a final note, the effects of the pandemic can still be noticeable. Longitudinally, we still do not know all the repercussions on students' well-being derived from the lockdown period, and it is important to provide the necessary support to them.

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AUTHORS' CONTRIBUTION

Conceptualization, A.P.C. and A.P.; data curation, A.P.C. and A.P.; formal analysis, A.P.C., A.P., S.C. and M.F.; investigation, A.P.C., A.P., M.F. and S.C.; methodology, A.P.C., A.P., S.C. and M.F.; resources, A.P.C.; supervision, A.P.C.; visualization, A.P.C., A.P., S.C. and M.F.; writing - original draft, A.P.C.; writing - review & editing, A.P.C., A.P., M.F. and S.C.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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