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Teachers becoming ill due to the use of new technologies.

Teachers' Illness Caused by the Use of New Technologies

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Summary

This article aimed to address issues related to the effects of new technologies on the mental health of teachers in the current educational context. With technological advancements and the increased use of digital tools, especially after the COVID-19 pandemic, it has been observed that teachers are facing significant challenges that, in many cases, result in overload and emotional distress. The discussion was based on recent research and studies exploring this problem, highlighting the need for continuing education and institutional support for education professionals.

To this end, a literature review was conducted based on materials available in scientific and academic databases, such as Google Scholar, SciELO, CAPES Journals, and specialized books in the areas of Education, Psychology, and Digital Technologies. The search was guided by keywords such as teacher training, digital technologies, mental health, and occupational burnout, prioritizing articles published from 2020 onwards, especially those dealing with the post-pandemic period and its implications for teaching work. From the analysis carried out, it was possible to identify that the intensive use of digital technologies, although it has provided new pedagogical possibilities, has also increased the demands and pressures on teachers, contributing to increased rates of stress, anxiety, and professional burnout. It was observed that many teachers still lack adequate training to deal with the demands of technology-mediated teaching, which reinforces the importance of continuing education as a strategy for preventing burnout. It is concluded, therefore, that investment in institutional policies for emotional support and continuous technological training is essential in order to promote a more balanced, healthy, and sustainable work environment for educators in the face of the challenges of the digital age.

Keywords: teacher training; digital technologies; mental health; occupational illness.

Abstract

This article aimed to address issues related to the effects of new technologies on the mental health of teachers within the current educational context. With technological advancement and the intensified use of digital tools, especially after the COVID-19 pandemic, it was found that teachers have been facing significant challenges that, in many cases, result in overload and emotional distress. The discussion was based on recent research and studies that explored this issue, highlighting the need for continuous training and institutional support for education



professionals. To this end, a bibliographic review was carried out using materials available in scientific and academic databases such as Google Scholar, SciELO, CAPES Journals, and specialized books in the fields of Education, Psychology, and Digital Technologies. The search was guided by keywords such as teacher training, digital technologies, mental health, and professional illness, prioritizing articles published from 2020 onwards, especially those addressing the post-pandemic period and its implications for teaching work. From the analysis, it was possible to identify that the intensive use of digital technologies, although it has provided new pedagogical possibilities, has also increased the demands and pressures on teachers, contributing to higher levels of stress, anxiety, and professional exhaustion. It was observed that many teachers still lack adequate training to deal with the demands of technology-mediated teaching, which reinforces the importance of continuing education as a strategy for preventing illness. Therefore, it is concluded that investing in institutional policies for emotional support and continuous technological training is essential to promote a more balanced, healthy, and sustainable work environment for educators in the face of the challenges of the digital age.

Keywords: teacher training; digital technologies; mental health; professional illness.

1 INTRODUCTION

Historically, teacher training has been guided by a pedagogical structure. traditional, centered on the figure of the teacher as the exclusive holder and transmitter of knowledge. Educational practice was supported by a rigid curriculum, with little flexibility. for innovative methodologies or for the use of digital technologies. As highlighted by Nóvoa (1995, p. 22), "teacher training was conceived, for a long time, as a "The process of transmitting knowledge, detached from social and technological reality." This perspective reinforced a verticalized teaching model, in which the teacher occupied a... The student occupied a central position, and played an essentially passive role.

With the advancement of information and communication technologies, especially after the With the popularization of the internet, the teaching-learning process has gradually become... Transformed. Access to knowledge has become more dynamic, interactive, and decentralized. requiring a new pedagogical and professional stance from the teacher. According to Carroll *et al.* (2010), so that teachers can develop effective teaching practices with the use In the context of technology, it is essential to invest in both initial and continuing education. so that they know how to integrate digital resources in a critical, ethical, and pedagogical way.

This new educational configuration, while bringing numerous possibilities Pedagogical demands also impose a series of cognitive requirements on teachers. emotional and technical. In this context of accelerated transformations, Bauman (2001) It characterizes contemporary society as "liquid," marked by the fluidity of relationships, by The transience of structures and the constant mutability of human experiences. This Instability is directly reflected in the educational field, imposing a challenge on teachers.

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due to continuous updating and adaptation to new languages and teaching formats. According to Kenski (2012) argues that digital technologies modify not only pedagogical resources, but also... also the way the teacher teaches and the student learns, requiring new skills and more dynamic educational practices. Moran (2015) reinforces this view by stating that the role of The teacher transforms from a transmitter of knowledge into a mediator and guide of... learning, from a more collaborative and interactive perspective. Similarly, Tardif (2014) highlights that the contemporary teacher must be able to reflect critically on his practice and integrate diverse knowledge to respond to the demands of an educational context in constant change. Thus, the teacher, who for a long time occupied a central position and While the educational process was authoritarian, it has begun to share this role with digital tools. algorithms and virtual learning environments, assuming a mediating and reflective role (Mishra; Koehler, 2006; since, 2009). Given this scenario, it becomes essential to discuss the impacts of digital technologies on teachers' mental health, recognizing that the Technological innovation, without the proper institutional and emotional support, can turn into... a factor in illness and professional burnout.

2. NEW TECHNOLOGIES IN EDUCATION IN THE POST-PANDEMIC ERA

The COVID-19 pandemic, which began in 2020, represented a watershed moment. for the use of educational technologies in Brazil and the world. Emergency remote learning. It imposed on teachers, often unprepared, the need to quickly acquire the knowledge. digital tools are being used to ensure the continuity of school activities. This The accelerated and, in many cases, solitary process has brought new implications for the practice to light. teacher.

According to Turk (2014, p. 83), "this new pedagogical proposal must be thought of critically, because it transforms the traditional relationship between teacher and student, imposing new "Cognitive and emotional demands on those involved." The transition from one teaching model to another. From traditional to more interactive and digital, involving the use of virtual platforms, Educational software, video lessons, and social networks have led to a paradigm shift. Many teachers reported difficulties in adapting their teaching practices, which resulted high levels of stress, anxiety, and, in more serious cases, absences due to problems. related to mental health. Research such as that by Rodrigues and Silva Júnior (2021) shows that adapting to remote learning has led to the "emergence and/or worsening of illnesses" in teaching work", highlighting the emotional and psychological impact faced by teachers during the pandemic period.



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Conte (2022) argues that, during the pandemic, the focus on remote learning It deepened the social and technological inequalities that already existed in Brazilian education. impacting, above all, teachers and students from peripheral regions. Furthermore, the use The intensive use of digital technologies has increased the workload of teachers. They began to perform multiple functions: planners, tutors, technicians, communicators, and managers. of the teaching-learning process. This multiplicity of roles led to the extension of working beyond school hours, compromising the balance between personal life and work.

According to Perrenoud (2000, p. 7), "the teaching profession involves multiple skills that need to be constantly reinvented in the face of societal challenges. "Contemporary." However, during the pandemic, many teachers found themselves **unprepared** and abandoned by educational institutions, facing a scenario of remote learning without the proper training and without adequate psychological support. The abrupt transition to digital learning, Combined with the workload and pressure for results, this significantly compromised [them/his performance]. the mental health of these professionals. In this sense, **Oliveira et al. (2021)** highlight that the lack The lack of technological and pedagogical preparation of teachers was one of the main factors that generated Stress, anxiety, and feelings of helplessness during emergency remote learning.

Studies indicate that **72% of educators have had their mental health affected. during the pandemic**, with emphasis on symptoms such as anxiety, stress and depression (Cnn) (Brazil, 2020). Furthermore, **58% reported high levels of stress, 39% insomnia, and 38% pain. in the limbs**, indicating that the emotional impact was also reflected physically (Fepesp, 2020). The need for rapid adaptation to Digital Information Technologies and Communication (ICT), without adequate training, **generated anguish and suffering, contributing for the increase in cases of burnout, depression and other mental disorders** (Santos; Nakamoto; Rufino, 2022).

According to Conte (2022), although essential during the health crisis, technology It also functioned as a vector of exclusion, especially for educators working in contexts of vulnerability. The absence of adequate infrastructure, ongoing training and In most cases, the lack of institutional support contributed to physical exhaustion and The emotional state of the teachers, who were forced to improvise teaching strategies without the... due to technical or psychological support.

The emotional overload was exacerbated by the lack of institutional support. The lack of specialized professionals, such as school psychologists and emotional support teams,



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This has made it difficult to implement systematic care actions, especially in less developed regions. favored (MACEDO, 2025). As pointed out by Freitas (2021), the absence of policies Effective public programs for emotional support and digital training have exacerbated the suffering of teachers. who were already dealing with structural challenges in their schools.

Given this scenario, the absence of effective strategies for psychological support and Institutional policies aimed at caring for teachers' mental health highlight the need Urgent structured actions are needed. Such actions should mitigate the adverse effects caused by technological transformations and ensuring healthier and more equitable working conditions for Teachers in the post-pandemic educational context.

3 METHODOLOGY

This study is characterized as a **qualitative research approach**, of **Descriptive and analytical** in nature , carried out through a **literature review**. The objective was To gather, analyze, and discuss academic and scientific productions that address the impacts of use. The role of digital technologies in teachers' mental health, with an emphasis on the **post-pandemic** period. **of COVID-19.**

Data collection was conducted between May and August 2025, on the following databases: scientific and academic sources, such as **Google Scholar, SciELO , and CAPES Journals**, as well as other sources . **Reliable institutional and journalistic sources**, such as *Nova Escola, CNN Brasil, FEPEESP , and El País*. To guide the search, the following **keywords were used:** *teacher training, Digital technologies, mental health, occupational illness , and remote learning.*

Inclusion and exclusion criteria

Inclusion criteria:

- Publications between the years **2020 and 2025**;
- Studies that directly or indirectly address the relationship between **digital technologies** and **teacher mental health**;
- Works with **theoretical or empirical foundations**, including scientific articles, technical reports, and specialized materials.

Exclusion criteria:

- Productions with no focus related to teaching;
- Publications lacking a scientific basis or not fully available;
- Works prior to 2020.

The **data analysis** was conducted using the **content analysis technique**, which made it possible to identify recurring categories and trends regarding the problem investigated. This technique, according to Bardin (2011), allows the decomposition and systematic reinterpretation of the content, favoring the construction of inferences consistent with the research objectives.

A literature review article seeks to **systematize and discuss existing knowledge** on a given topic, based on secondary sources — such as scientific articles, books, dissertations, theses, and institutional documents. Unlike empirical research, **There is no collection of primary data**, but rather a critical and comparative analysis of productions published.

According to Gil (2008), bibliographic research is developed based on materials already available, compiled, consisting mainly of books, scientific articles and other documents relevant, being widely used in the humanities and social sciences. According to Lakatos (2003), this type of study represents the **first step in an investigation**, as it deepens the theoretical understanding of the object and identifies gaps in existing knowledge. For Severino (2007), the function of a literature review is to situate the researcher in the current state of knowledge and offer the **necessary theoretical basis** for search.

A literature review can be **descriptive, analytical, or critical in nature**, using secondary sources and relying on a structured methodology, with a clear definition of descriptors, selection criteria, and time frame. In the present study, the productions were organized and summarized as shown in Table 1 below.

Table 1 – Scientific and institutional outputs analyzed (2020–2025)

Author(s)	Year	Title / Main Theme	Source / Periodical	Main Contributions
CNN Brazil	2020	The 2020 pandemic affected the mental health of 72% of teachers.	CNN Brazil	It highlights the psychological impact of the pandemic on Brazilian teachers.
FEPESP	2020	Research on mental health and working conditions of teachers	Federation of Teachers of the State of São Paulo	It points to high levels of stress, anxiety, and physical symptoms among teachers.
Tell me, A.	2022	Education and the pandemic: challenges and inequalities in remote learning	Cortez Publishing House	It analyzes technological inequalities and teacher overload in remote education.
Santos; Nakamoto; Rufino	2022	Teaching and mental health: challenges of remote teaching during the pandemic	Magazine Brazilian of Education	Reports indicate an increase in burnout and depression among teachers during the pandemic.
Freitas, LC	2021	Education in times of pandemic: challenges and perspectives	Papyrus	It discusses the lack of public policies to support teachers' psychological well-being.

Macedo, AP 2025	Teacher mental health and institutional challenges in the post-pandemic era	Authentic	It advocates for the implementation of institutional actions focused on the emotional well-being of teachers.
Perrenoud, P. 2000	Ten new competencies for teaching	Artmed	Justifies the need of adaptive teaching skills in the face of technological change.
Turk, J.	2014 Contemporary Technologies and Pedagogical Practices	Educa	It discusses the cognitive and emotional demands imposed by educational technologies.

4. FINAL CONSIDERATIONS

Since the institutionalization of the modern school, few transformations have been so... as profound and impactful as those caused by new technologies, especially in context of the COVID-19 pandemic. Although history has been marked by several pandemics — such as the Black Death in the 14th century, the Spanish Flu in 1918, and the H1N1 flu. In 2009—the health crisis that began in 2020 presented a unique characteristic: it occurred in The digital age demands rapid and intensive technological adaptation to ensure... continuity of social, economic and educational activities.

The emergency adoption of remote learning and, subsequently, the hybrid model, It highlighted the weaknesses in the educational infrastructure and revealed the lack of training, appropriate teacher training regarding the pedagogical use of Digital Information Technologies and Communication (ICT). Teachers, mostly trained from a traditional perspective. In education, they were challenged to reinvent their practices, reconciling the technical mastery of digital tools contribute to maintaining the quality of the teaching-learning process.

This context triggered feelings of anxiety, frustration, loneliness, and helplessness. among educators, who have come to face multiple demands — technical, emotional and pedagogical — without adequate institutional support. Difficulties in operating platforms. digital tools, recording video lessons, promoting student engagement, and dealing with overlapping tasks. These tasks contributed to the physical and mental illness of many professionals. According to Freitas (2021, p. 5) points out that "the absence of effective public policies for emotional support and Digital training for teachers exacerbated the suffering of those already dealing with difficult conditions. "adverse challenges in schools."

According to Santos, Nakamoto and Rufino (2022), work overload during Remote learning has intensified cases of stress, anxiety, insomnia, and depression, highlighting... The urgency of institutional measures focused on teachers' mental health. In addition to the demands... In addition to pedagogical approaches, teachers began to assume multiple roles — educators, technicians, communicators and advisors —, often without psychological or technological support

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necessary, which increased emotional strain and reduced professional well-being.

Given this scenario, it becomes essential to rethink training and appreciation.

Teacher training should incorporate digital literacy as an essential competency.

Preparing future teachers to act critically in technology-mediated contexts.

On the other hand, continuing education needs to occur in an ongoing, collaborative, and contextualized manner.

guaranteeing the development of technical, pedagogical and socio-emotional skills that allow for a balanced approach to contemporary changes.

Similarly, it is urgent that public and institutional policies be structured.

To offer emotional and technical support to educators. Welcoming programs.

Psychological support, spaces for active listening, and initiatives to promote professional development should be incorporated.

to educational management, recognizing that teacher well-being is an indispensable component.

of the quality of education. Investing in the mental health of teachers therefore means investing in

Sustainability and the humanization of education.

Finally, the main reflection that emerges from this research is the need to balance.

Technological innovation and human care. The modernization of pedagogical practices cannot

This will happen at the cost of burnout among education professionals. The legacy of the pandemic should be...

the reconstruction of a more empathetic, inclusive, and supportive school — an education that

Value, support, and strengthen the teacher as a central figure in social transformation.

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