Teaching perspective during COVID-19: coping and stress

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ABSTRACT

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Pandemic Professional burnout Stress Teachers Virtuality This study aimed to analyze the indicators related to coping and stress or burnout perceived by teachers who worked virtually during the COVID-19 pandemic; it presented a descriptive quantitative approach. The data collection technique used was a survey and a self-administered questionnaire as the instrument used, structured in five dimensions: stressful situations during virtual work, perceived feelings, teacher coping, perception of optimism, and lifestyle assumed due to the pandemic. The sample selected for the study was composed of 97 teachers who experienced virtual teaching in various regions of Peru. The study concluded that teachers experienced stressful situations, made strong sacrifices, faced and sought alternatives, and were assertive and calm. They have had both positive and negative feelings about remote education. This survey showed optimistic changes, making teachers strive to adopt a new lifestyle dedicated to training independently and improving technological skills, among other aspects.

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1. INTRODUCTION

Originating in China, COVID-19, a virus harmful to human health, was able to spread and affect all countries, infecting millions of people and causing thousands of them to die in various parts of the world. Due to this situation, the World Health Organization (WHO) considered it a pandemic [1]. Thus, governments worldwide forced to deploy a series of emergency health measures, mainly quarantines, to ensure the population's health and stop the spread of the virus [2]. This new normality imposed was a landmark event that wreaked havoc throughout the world at the economic, political, social, and medical levels [3], [4].

Educational, technological, pedagogical, and psychological challenges arose to ensure the continuity of educational services worldwide [5]. These resulted in major changes that shaped the way educational services were provided to adapt to the new reality produced by the pandemic and its imposed restrictions [6], [7]. As a result, Latin America and the Caribbean opted to suspend face-to-face classes at a general level, seeking to adopt a distance modality to continue the educational process, use of the Internet and specialized virtual platforms [8].

On the other hand, the performance of professionals involved in pedagogical work was affected in the same way, since the pandemic, in general, hurt people's mental health. The population, in general, presented, and still presents, negative thoughts due to the uncertainty generated by this situation, as well as more complex mental problems such as anxiety or depression [9], [10]. Teachers were the most affected because, in addition to being mentally affected, they had to provide socioemotional support to their students, in addition to other challenges inherent to this unexpected situation [11].

This pandemic caused teachers to seek much more preparation compared with other years, as they were tasked with an accelerated shift from the traditional teaching model to a virtual one [12]. This adaptation process was a major challenge for them, due to situations ranging from lacking adequate equipment or a stable Internet connection, to having little or no knowledge about the management of virtual tools [13]. Thus, this lived reality is significant to highlight through studies of each of the elements that intervened in the generation of stress patterns and that still present some incidence in the lives of these professionals.

Thus, in addition to the health problems inherent to the pandemic, many teachers suffered work-related stress, affecting their physical and mental health [14]. In other words, the appearance of a pandemic reality constituted an interesting issue not only in itself but also because of the lack of motivation experienced by teachers, which generated, in some cases, negative expectations regarding their capabilities and the feeling of being not very competent. However, teachers' work stress has been a topic addressed in many studies worldwide, including those conducted by Lazarus [15]; in these studies, apart from analyzing the reasons that generate this situation, coping strategies related to stress are also proposed.

From these studies, extremely important theories have emerged that attempt to explain or characterize work-related stress. Among them, the stress theory developed by Lazarus [15], which is centered on the cognitive processes generated by a stressful situation, stands out. This theory is included in the so-called transactional models of stress, which assess how a subject interacts with a specific environment and situation, and take into account how his or her evaluations and cognitions influence this process. According to this author, a situation can be stressful due to exchanges of any kind between a person and his or her environment, which are largely due to the impact of the environmental stressor. At the same time, two variables are involved in this impact: the evaluations made by the person of the stressor, and the personal, social, or cultural resources available to the individual to cope with the stressor [15].

Based on the explanation, this study aims to analyze the indicators related to coping and stress or burnout perceived by teachers who worked virtually during the COVID-19 pandemic. It also focuses on the following aspects: i) what were the stressful situations conceived by teachers during virtual work in times of COVID-19?; ii) what were the feelings perceived by these teachers during remote work?; iii) what is the level of optimism perceived by teachers in the context of remote work?; iv) how did teachers perceive the remote work to which they were exposed by the pandemic?; and v) how did the COVID-19 pandemic influence the lifestyle of teachers?

2. METHOD

This study presented a descriptive quantitative approach to analyze indicators related to coping and work stress or burnout [16] perceived by teachers who taught classes virtually during the COVID-19 pandemic. This approach is characterized by the use of quantitative methods and techniques since it is oriented towards measurement, the use of magnitudes, observation, and measurement of the units of analysis, sampling, and statistical treatment [17]. On the other hand, descriptive studies specify the most relevant characteristics of individuals, groups, communities, or any other analyzed phenomenon. In these, certain questions are selected, measuring each of them independently to describe what is being investigated [18].

Non-probabilistic convenience sampling was used [19], for which relevant selection criteria were established by the reality experienced in the country as a result of the pandemic. The sample size was determined through the use of an informed consent form that each participant signed before filling out the questionnaire. These documents were available on the online platform Google Forms for seven days [20]. For this reason, only teachers who expressed their desire to participate and who voluntarily answered the questions in the questionnaire were considered, so the sample consisted of 97 teachers for convenience as follows: 87 from Lima and Callao, 3 from Cusco, 3 from Cajamarca, 1 from Pasco, 1 from La Libertad, 1 from Tacna and 1 from Ancash. It is important to emphasize that convenience or accidental sampling works with the sample size available according to the conditions, which, in the case of this research, was limited by isolation and distance due to the pandemic.

These teachers participated voluntarily and were from the initial level (10.2%), primary level (28.6%), secondary level (25.5%), higher level (28.6%), postgraduate level (5.1%), and technical level (2%). As additional data, it should be noted that among those selected women were predominant (77.6%), married or cohabiting persons (56.1%), and those working in private institutions (68.4%). Likewise, the average age of the teachers surveyed was 45 years.

Data were collected using the survey technique. The instrument used consisted of a self-administered questionnaire containing a teaching scale of work stressors in times of pandemic, which reported a consistency of 1:1. The instrument used consisted of a self-administered questionnaire containing a scale of teaching job stressors in times of pandemic, which reported an internal consistency of $\omega=0.93$ for

the full scale; likewise, content-based validity analysis of this scale was established by Oros *et al* [21]. A more complete questionnaire was developed from this instrument, the expert judgment allowed its validation and obtained a high reliability (0.902), taking the first thirty instruments sent through the platform. It is important to note that the questionnaire was composed of four parts: a first section containing 18 questions to find out the stressful situations of teachers. These questions had 5 response options: not at all stressful (NE), not very stressful (PE), somewhat stressful (AE), quite stressful (BE), and very stressful (ME). A second section of the questionnaire contained 21 questions to find out how often teachers experienced different feelings during their remote work in times of pandemic. This section consisted of (7) seven response options: never (N), few times a year or less (PA), once a month or less (UM), few times a month (PM), once a week (US), few times a week (PS), and every day (TD).

The third section of the questionnaire aimed to find out the coping experienced by teachers during COVID-19 time. This part was composed of 10 questions with 5 response options: never (N), rarely (RV), sometimes (AV), often (AM), and very often (MF). A fourth section of the questionnaire contained a question about how optimistic teachers felt about their abilities to manage the transition to online teaching. It had 5 response options: 1=not very optimistic (No), 2=not very optimistic (Po), 3=moderately optimistic (Mo), 4=optimistic (O), and 5=very optimistic (Mo). In this study, the reliability values obtained after the application of the instrument were alpha=0.918 for the first section; alpha=0.908 for the second section, alpha=0.906 for the third section; and the fourth section with an-alpha=0.905, which allowed an average alpha value equal to 0.909, which is above the mean achieved in the initial test of 0.902. This allows inferring that the results achieved in the study are sustainably reliable. Finally, the teachers were asked to provide additional commentary on what their new lifestyle has been like because of the COVID-19 pandemic.

3. RESULTS AND DISCUSSION

The COVID-19 pandemic resulted in an urgent and improvised transformation of education. As a result, remote education was implemented to provide continuity to the pedagogical process [22]. This situation generated a large number of teaching professionals who experienced physical and mental exhaustion, which in one way or another affected their teaching practice. For Rojas [14], stress is a state that can be experienced by any individual, manifesting itself through the general adaptation syndrome (GAS), which is composed of three phases: "alarm, adaptation and resistance, and exhaustion" (p. 5). If that individual reaches the exhaustion phase, it would possibly generate a disease of the organism caused by the weakening of the adaptive response of the organism. Concerning teachers' knowledge of stressful situations, the results that emerge from the situations that generate stress in virtual work are presented in Table 1.

Table 1. Suessial situations in the virtual context during COVID-17							
	NE	PE	AE	BE	ME		
	(%)	(%)	(%)	(%)	(%)		
Modify contents and activities to adapt them to virtual modality	10.2	16.3	34.7	25.5	13.3		
Receive multiple and simultaneous inquiries from students and/or parents	6.1	28.6	23.5	29.6	12.2		
Work in a place where is not easy to concentrate	18.4	29.6	23.5	16.3	12.2		
Learn to use and master new technological media	21.4	22.4	31.6	15.3	9.2		
Physical distance from the rest of the teaching team	14.3	26.5	28.6	20.4	10.2		
Insufficient or inadequate technological resources	18.4	15.3	26.5	23.5	16.3		
Short time to carry out every task involved in remote work	7.1	9.2	26.5	34.7	22.4		
Little participation in the selection of virtual platforms	15.3	20.4	32.7	19.4	12.2		
Maintaining my own motivation to keep going forward	17.3	20.4	33.7	18.4	10.2		
Working without an orderly schedule, predetermined, or different from the usual	12.2	17.3	15.3	31.6	23.5		
Taking care of work and household chores simultaneously	11.2	13.3	18.4	24.5	32.7		
Family pressure to work fewer hours	20.4	19.4	18.4	24.5	17.3		
Feeling that superiors do not understand how difficult it is to work under these conditions	17.3	15.3	14.3	28.6	24.5		
Not knowing if students are really understanding the contents	11.2	14.3	27.6	30.6	16.3		
Not good knowledge and handling of programs and applications that can favor distance	18.4	26.5	22.4	22.4	10.2		
education.							
Knowing that some students do not have the technological media to learn virtually	14.3	11.2	26.5	26.5	21.4		
Uncertainty about the future, not knowing when the pandemic ends	12.2	15.3	21.4	22.4	28.6		
Not knowing how my socioeconomic situation will be, because of this situation	8.2	17.3	20.4	24.5	29.6		

Table 1. Stressful situations in the virtual context during COVID-19

Based on the table above, the most stressful situations perceived by the teachers surveyed were (quite or very stressful) having to do work and home tasks simultaneously (57.2%), having little time to perform all the task involved in remote work (57.1%), working without an ordered, predetermined or different schedule than usual (55.1%), and not knowing what their socioeconomic situation will be like (54.1%). Most teachers were stressed by the drastic change in their domestic and workload. On the other

hand, among the situations perceived as less stressful (not at all or not very stressful) were working in a place where it is not easy to concentrate (48.0%), knowing and handling few distance education programs and applications (44.9%), learning to master new technological equipment (43.8%), and being physically distant from the teaching team (40.8%).

The teachers surveyed did not show concern for learning to handle new programs and equipment and were not affected by isolation from other teachers. Then, an average was calculated from the activities marked by the teachers as stressful in different degrees, according to the academic degree in which they worked. It is observed that, on average, postgraduate teachers marked far fewer activities as stressful compared to the others, while, on the contrary, teachers from technical institutions were those who identified more stressful activities in the questions provided. Likewise, it is observed that teachers in early childhood, elementary, secondary, and higher education present similar average values concerning the level of stress perceived by the tasks shown. Figure 1 identifies stressful activities, highlighting the levels at which each teacher consulted performs. Regarding the frequency with which teachers experienced different feelings/emotions during their remote work in times of pandemic, the results can be seen in Table 2.

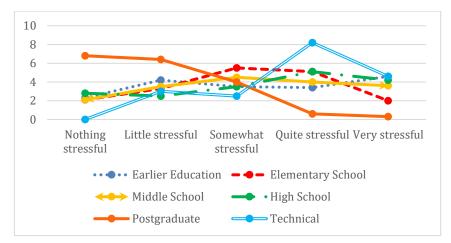


Figure 1. The average response rate to stressful activities

	Ν	PA	UM	PM	US	PS	TD
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
I feel emotionally exhausted by my work	8.2	16.3	11.2	15.3	10.2	18.4	20.4
I feel tired at the end of the workday	9.2	13.3	12.2	5.1	8.2	18.4	33.7
I feel fatigued when I get up in the morning to work	18.4	16.3	8.2	15.3	8.2	18.4	15.3
I can easily understand how my students feel	5.1	5.1	5.1	5.1	7.1	22.5	50.0
I think I treat some students as if they were impersonal objects.	64.3	12.2	6.1	8.2	1.0	5.1	3.1
It is an effort to work every day with students.	27.6	15.3	10.2	11.2	5.1	17.3	13.3
I cope with my students problems very effectively	4.1	8.2	4.1	6.1	19.4	18.4	39.7
I feel "burned out" by my work	45.9	13.3	6.1	5.1	6.1	13.3	10.2
I believe that I am a positive influence on others by doing my work	2.0	5.1	3.1	8.2	4.1	22.4	55.1
I have become more insensitive to people since I have been in this profession	67.3	10.2	8.2	5.1	3.1	3.1	3.1
I am worried that this job is hardening me up	58.2	14.3	9.2	8.2	0.0	5.1	5.1
I feel very active, with vitality	5.1	13.3	10.2	7.1	12.2	26.5	25.5
I feel frustrated in my job	41.8	24.5	7.1	5.1	9.2	8.2	4.1
I think I'm working too much	8.2	16.3	13.3	13.3	4.1	19.4	25.4
I am not really care about what happens to some students	57.1	16.3	7.1	5.1	5.1	3.1	6.2
It is stressful working with students	39.8	24.5	10.2	7.1	7.1	7.1	4.1
I can easily create a relaxed atmosphere with students	1.0	10.2	2.0	5.1	13.3	23.5	44.9
I feel stimulated after working with my students	1.0	5.1	8.2	4.1	8.2	20.4	53.1
I have achieved many useful things in my profession	1.0	4.1	6.1	2.0	10.2	27.6	49.0
I am done / I feel very tired	30.6	25.5	8.2	6.1	5.1	10.2	14.3
I deal with emotional problems very calmly at work	3.1	9.2	8.2	4.1	10.2	18.4	39.8

Table 2.	Results	of the	tests on	feelings	at work
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From Table 2, it can be seen that the most frequent responses from teachers (sometimes a week or every day) were believing that they are a positive influence on others when doing their job (77.5%), accomplishing many useful things in their profession (76.6%), feeling stimulated after working with their students (73.5%), and easily understanding how their students feel (72.5%). Thus, it can be evidenced that many of the teachers presented positive feelings during their work in times of pandemic.

In addition, the least frequent response (never or a few times a year) was to have become more insensitive towards people since they have been in this profession (77.5%), believing that they treat some students as impersonal objects (76.5%), feeling frustrated in their work (76.3%), and not caring about what happens to some students (73.4%). The teachers surveyed remained interested in providing a good level of teaching and maintained their concern for the students and their academic progress throughout the year. Coping outcomes experienced by teachers during COVID-19 are shown in Table 3.

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Table	3	Stress	coning	test results

	N (%)	RV (%)	AV (%)	AM (%)	MF (%)
I have negative thoughts about my own ability to cope with pandemic stress	37.8	28.6	22.4	8.2	3.1
It has been difficult for me to concentrate on my class scheduling	24.5	39.8	23.5	6.1	6.1
I try some strategy on what to do, in case I feel stressed	3.1	16.3	26.5	38.8	15.3
I honestly wish this school year to finish soon	8.2	18.4	24.5	18.4	30.6
I tend to avoid responsibilities by occupying my time with other distractions	29.6	37.8	18.4	12.2	2.0
I look for advice from a friend or family member on how to handle stressful situations	12.2	25.5	30.6	18.4	13.3
I had trouble falling asleep at some point	18.4	36.7	20.4	10.2	14.3
I felt guilty when I failed to meet my schedules on time	22.4	26.5	25.5	15.3	10.2
I seek spiritual help to feel better and it comforts me	20.4	15.3	23.5	16.3	24.5
I used to stay calm and be assertive in troubled situations	4.1	8.2	19.4	34.7	33.7

According to this table, the most frequent ways of coping with stress (frequent or very frequent) were keeping calm and being assertive in problematic situations (68.4%), trying some strategy in case of stress (54.1%), and seeking spirituality to feel better. and comfort (40.8%). In addition, most teachers tend to want to finish this school year soon (49.0%). Teachers sought ways to cope with the problems and challenges encountered. On the other hand, the symptoms experienced less frequently (never or rarely) are having negative thoughts about their ability to cope with the pandemic (66.4%), having difficulty concentrating on their class schedule (64.3%), the tendency to avoid responsibilities by occupying their time with other distractions (67.4%) and having trouble falling asleep at some point (55.1%). Most of the teachers were optimistic about their ability to cope with the virtual modality and have tried to make an effort to maintain their educational quality.

Regarding the degree of optimism that teachers felt about their ability to manage the transition to a virtual modality, two tables were prepared for each moment evaluated. In addition, the responses were classified according to the institution where each teacher worked. Figure 2 shows the teachers' perceptions of the use of the virtual modality. Figure 2(a) shows teachers' perceptions at the beginning and Figure 2(b) shows teachers' current perception of the use of the virtual modality.

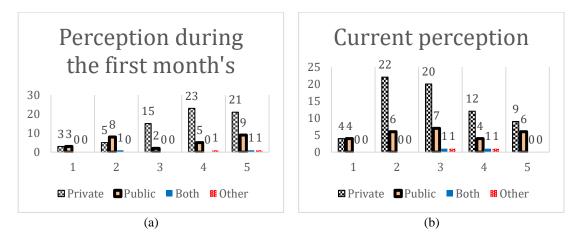


Figure 2. Optimism towards the transition to the virtual modality (a) perception during the first month's and (b) current perception

From the results of Figure 2, it can be inferred that within the entire sample of teachers surveyed, there was optimism at the beginning about their ability to manage the transition to a virtual modality, since positive responses predominated (4 and 5). However, at the time of the present study, there was less generalized optimism among teachers, showing a lower number of positive responses, with a predominance of neutral or negative ones (2 and 3). This difference is more evident in teachers working in private schools, because there is a considerable loss of optimism within this group, compared to others.

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Regarding teachers who expressed an additional comment about how their new lifestyle has been because of the pandemic, the following was obtained: Some teachers gave negative opinions about the pandemic and virtuality, expressing their discontent with situations such as not being able to generate the same connection as in person, not being able to see students' faces or reactions, or not having the necessary tools to adopt this new way of working. At the same time, the loss of the ability to involve and engage students was highlighted as an important consequence of virtuality. Teachers also expressed concern about spending money on medication for depression and anxiety, decompensation caused by stress, and frustration that their bodies do not react favorably to medication.

However, other teachers were optimistic about this complex situation. Some expressed that, although this new situation was difficult and stressful at the beginning of the year, they have been able to handle it much better since July. They have also recognized the opportunities for improvement in the use and value of technology since it has allowed them to acquire new and useful learning for today's education. Although it has been a complex process of adaptation, there has been a lot of understanding towards the teachers; and also, the students have been a great motivation for their teachers to support the virtual work.

3.1. Discussion

According to the results, the impact of the pandemic on the level of stress perceived by teachers has increased considerably given the new living conditions to which teachers were exposed. This excessive stress has been generated by factors such as the socioeconomic uncertainty produced by the pandemic, as well as the simultaneous increase in work and domestic burden produced by both the imposed quarantine and the new remote work. At this point, the superimposition of work on household chores stands out as a stressful element, i.e., the working conditions of teachers had to be adjusted according to the lack of an element that limited the space of professional work from the physical environment of the home; this resulted in an overlapping of the teaching practice to the care of the family and the socio-sanitary conditions of the home amid the pandemic [23]. These conditions evidenced the limited availability that some sectors of the population -both teachers and students- have to access information and communications technology (ICT) in their homes; which is a determining factor in analyzing the educational opportunities and resources available to teaching professionals. This reality is evidence of the digital divide and the inequality experienced by many households in Peru, which is why the State should focus its efforts on providing the entire population with the appropriate technological resources. It is also necessary to implement educational policies for training teachers to guide them in the use of technologies [24].

On the other hand, Robinet-Serrano and Azahuanche [25] reached conclusions that, in turn, are consistent with the study by Silva *et al.* [26] whose evaluated sample also reported an elevated level of stress caused by factors such as psychological demands, decision making, social support, and work isometry. Likewise, the results of these studies identify the work model applied and the imbalance between workload and the subject's skill level as the main stressors. In other words, the virus and isolation caused stress and depression in many cases; a situation that triggered episodes of anxiety, depression, and sleep disorders. Added to this was the increase in workload and uncertainty linked to the pedagogical changes that were implemented in the educational institutions.

However, even though teachers have experienced greater stress when performing their tasks compared to previous years, it could be observed that most of the participants surveyed have maintained their optimism and desire to do a good job. Mainly, interacting with students, and providing support during these difficult moments has greatly influenced teachers' ability to cope with the effort involved in virtual work. Similarly, other studies concluded that teachers who have practiced their profession during the pandemic are more emotionally exhausted [27], [28]. In addition, they determined that to a large extent, a low level of depersonalization is reported due to the changes experienced. This, together with the perceived high level of personal accomplishment, suggests that their vocation to teaching plays an important role in helping them cope with stress.

Likewise, the comments provided by the teachers reveal the adverse health effects, in the form of anxiety or depression, of dealing with the pandemic and the new challenges and responsibilities that have arisen from it. Teaching during this time has been a considerable challenge for these professionals. The adaptation process involved many performance and concentration problems, so teachers had to adapt as best they could. Given this reality, it is necessary to implement in times of crisis and at a global level, actions that allow determining the physical and mental health status of teachers through interinstitutional work; likewise, it is necessary to implement measures, since, if these kinds of situations are not timely attended to, serious educational problems may be faced [21].

Several studies have identified challenges [29], arising from the process of adapting to a virtual modality, such as the use of new technologies, connectivity in the home environment, and additional expenses necessary for such adaptation, which are aligned with those found to be most common in this study [30]. Regarding ICT management, educational institutions must apply different intervention strategies to prevent and deal with technostress in teachers; for this purpose, it is suggested to provide teachers with theoretical-practical courses linked to technologies. This type of intervention will help to make the adaptation process easier since the continuous use of these technologies will allow them to acquire the necessary skills to meet the objectives programmed through academic virtualization.

For their part, Saldívar-Garduño and Ramírez-Gómez [31] emphasize the importance of adequate stress management to cope with the effects of physical and mental stress [32], [33]. Most of the teachers surveyed showed that they had found adequate ways to cope with the stress they experienced. Regarding the new lifestyle of teachers, brought about by the COVID-19 pandemic, it was observed that, generally speaking, their personal and work lifestyle was profoundly affected by the new normal brought about by the pandemic. Working from home caused a major clash between personal and work environments and their respective responsibilities. The need to adapt to this new way of life was found to be among the main causes of the problems they experienced [34], [35].

These results agree with the findings of the study conducted by López *et al.* [36] manifesting an increase in their working day, which is not paid, as well as an increased workload derived from the need to learn to handle new technologies and apply them in class. Paredes *et al.* [37] on the other hand, explored the impact of their new lifestyle on teachers' physical activity. Based on this, they report an increase in the physical inactivity of teachers, a situation that can seriously affect their health [38]. Finally, the agencies responsible for the administration of education should consider among their policies the various types of assistance to teachers, such as, for example, psychotherapy, because with its help, both teachers and students can redefine the reality experienced and generate the necessary emotional tools, recognizing that "the emotional dimension crosses and conditions education" [39].

On the other hand, it is significant to remember that the implementation of virtual education during the pandemic brought the use of technology to the forefront of the traditional face-to-face model. In other words, the student body, in general terms, considers the current face-to-face model to be better than the one that existed before the pandemic, since it was enriched by the integration of technological tools and platforms in the teaching-learning process. Likewise, although virtual education during the pandemic generated learning losses, it also allowed both teachers and students to experience educational disengagement. This is reflected in the traditional face-to-face model that was taken up again and in which it is observed that the educational process is not limited to a specific physical space.

4. CONCLUSION

Regarding the situations that have generated stress in teachers, a series of stressors were reported, some of them inherent to the pandemic itself and others due to changes in their way of working. Restrictive measures, together with the socioeconomic uncertainty caused by the pandemic, proved to be stressors in the teachers' personal lives, as well as, the increased workload. In terms of the feelings experienced by teachers, some said they were opposed to remote education because of its negative impact, particularly concerning the connection it generated with their students, while others saw it as an opportunity to change and learn new skills. Also noteworthy was the calm and assertiveness shown by teachers when faced with problematic situations, and the search for effective strategies to deal with stress.

In addition, teachers were quite optimistic about managing the transition to the remote or virtual modality at the beginning of the pandemic, but when this study was conducted recently, less optimism was noted, especially among teachers in private institutions as opposed to, for example, teachers in public or other education-related institutions. In turn, working at home generated a simultaneous increase in work and domestic burdens, and demanded a greater effort on the part of teachers to fulfill all their responsibilities. Likewise, they found it necessary to dedicate part of their time to training, generally on their own, in digital skills and the use of new technologies for their daily academic activity. Finally, the COVID-19 pandemic brought about considerable changes within the education sector, which posed a major challenge for teachers, as they were responsible for carrying out and maintaining this transition to a virtual modality. Although the additional tasks and effort to cope with new responsibilities and challenges led to an increase in stress experienced compared to previous years, the role of students in helping to mitigate the adverse health effects experienced by teachers is highlighted. In that sense, implementing appropriate coping strategies to deal with stressful situations has proven to be useful in meeting the new challenges posed by the pandemic in the educational environment.

REFERENCES

- J. Cifuentes-Faura, "Crisis del coronavirus: impacto y medidas económicas en europa y en el mundo," *Espaço e Economia*, no. 18, 2020, doi: 10.4000/espacoeconomia.12874.
- R. M. Medina and L. Jaramillo-Valverde, "El COVID-19: cuarentena y su impacto psicológico en la población," SciELO Preprints, vol. 1, no. 1, pp. 1–13, 2020, doi: 10.1590/SciELOPreprints.452.
- [3] F. A. Canaza-Choque, "Educación superior en la cuarentena global: disrupciones y transiciones," *Revista Digital de Investigación en Docencia Universitaria*, vol. 14, no. 2, p. e1315, 2020, doi: 10.19083/10.19083/ridu.2020.1315.
- S. Morales-Chainé, "Impacto de la pandemia por COVID-19 en la salud mental," *Enfermería Universitaria*, vol. 18, no. 2, pp. 130–133, 2021, doi: 10.22201/eneo.23958421e.2021.2.1218.
- [5] L. Medina-Gual *et al.*, "El impacto de la pandemia en la educación media superior mexicana: un análisis desde lo pedagógico, psicológico y tecnológico," *Revista Iberoamericana de Educación*, vol. 86, no. 2, pp. 125–146, 2021, doi: 10.35362/rie8624356.
- [6] J. Díaz, A. Ruiz, and C. Eguez, "Impacto de las tic: desafíos y oportunidades de la educación superior frente al COVID-19," *Revista Científica UISRAEL*, vol. 8, no. 2, pp. 113–134, 2021, doi: 10.35290/rcui.v8n2.2021.448.
- [7] J. A. T. Salinas, J. A. F. Yacuma, D. N. C. de la Cruz, F. R. Q. Martínez, and T. R. C. Naunay, "La educación virtual en tiempos de pandemia," *Revista Cognosis*, vol. 5, no. 3, p. 57, Sep. 2020, doi: 10.33936/cognosis.v5i3.2493.
- [8] CEPAL-UNESCO, La educación en tiempos de la pandemia de COVID-19, vol. 11. 2020. [Online]. Available: https://repositorio.cepal.org/items/5a875585-d094-47f7-9288-04114867f8aa
- [9] C. A. A. Palacio and J. I. T. Bermúdez, "Impacto del COVID-19 en la salud mental: revisión de la literatura," *Revista Repertorio de Medicina y Cirugía*, vol. 30, pp. 21–29, 2021, doi: 10.31260/repertmedcir.01217372.1180.
- [10] A. M. Torres-Cantero et al., "El impacto de la pandemia de COVID-19 sobre la salud. informe sespas 2022," Gaceta Sanitaria, vol. 36, pp. S4–S12, 2022, doi: 10.1016/j.gaceta.2022.02.008.
- [11] C. Mora, "Impacto de la pandemia de COVID-19 en los docentes: burnout, ansiedad y depresión," *Revista RUNAE*, no. 6, pp. 41–60, 2021.
- [12] C. M. Mollineda, R. M. Pedraza, and D. V. Coll, "Competencias en el profesorado universitario derivadas del impacto de la COVID-19," *Revista Iberoamericana de Educación*, vol. 88, no. 1, pp. 101–109, 2022, doi: 10.35362/rie8814823.
- [13] M. G. R. Tobar and J. de la C. Lozado, "Desarrollo de las competencias digitales en los docentes universitarios en tiempo pandemia: una revisión sistemática," *Crescendo*, vol. 11, no. 4, p. 511–527, 2021, doi: 10.21895/incres.2020.v11n4.06.
- [14] J. L. C. Rojas, "El estrés docente en tiempos de pandemia," Dilemas Contemporáneos: educación, política y Valores, vol. 6, pp. 1–11, 2021, doi: 10.46377/dilemas.v8i.2560.
- [15] R. S. Lazarus, Psychological stress and the coping process, McGraw-Hill Book Company, Inc., 1966.
- [16] L. S. Morales and L. F. H. Murillo, "Síndrome de burnout," Medicina Legal de Costa Rica Edición Virtual, vol. 32, no. 1, pp. 1– 6, 2015,
- [17] H. Ñ. Paitán, M. R. V. Dueñas, J. J. P. Vilela, and H. E. R. Delgado, *Metodología de la investigación cuantitativa-cualitativa y redacción de la tesis*, 5th ed., Bogotá: Ediciones de la U, 2018.
- [18] D. Cauas, "Definición de las variables, enfoque y tipo de investigación," Biblioteca electrónica de la universidad Nacional de Colombia, pp. 1–12, 2015.
- [19] O. H. González, "Aproximación a los distintos tipos de muestreo no probabilístico que existen," Revista Cubana de Medicina General Integral, vol. 37, no. 3, p. e1442, 2021.
- [20] E. Guzmán-Muñoz *et al.*, "Factores asociados a una baja calidad de vida en adultos chilenos durante la cuarentena por COVID-19," *Revista médica de Chile*, vol. 148, no. 12, pp. 1759–1766, Dec. 2020, doi: 10.4067/S0034-98872020001201759.
- [21] L. Oros, N. V. Rubilar, and S. Chemisquy, "Estresores docentes en tiempos de pandemia: un instrumento para su exploración," *Revista Interamericana de Psicología/Interamerican Journal of Psychology*, vol. 54, no. 3, p. e1421, 2020, doi: 10.30849/ripijp.v54i3.1421.
- [22] A. Loziak, D. Fedáková, and R. Čopková, "Work-related stressors of female teachers during COVID-19 school closure," *Journal Women's Entrepreneurship and Education*, vol. 2020, no. 3–4, pp. 59–78, 2020, doi: 10.28934/jwee20.34.pp59-78.
- [23] N. V. Rubilar and L. B. Oros, "Stress and burnout in teachers during times of pandemic," Frontiers in Psychology, vol. 12, p. 756007, 2021, doi: 10.3389/fpsyg.2021.756007.
- [24] S. D. T. Marmolejo and S. L. S. Giraldo, "Política educacional para una modalidad e-learning en la universidad a partir de la pandemia," *Revista Digital de Investigación en Docencia Universitaria*, vol. 15, no. 2, p. e1306, Nov. 2021, doi: 10.19083/ridu.2021.1306.
- [25] A. L. Robinet-Serrano and M. A. P. Azahuanche, "Estrés en los docentes en tiempos de pandemia COVID-19," Polo del Conocimiento: Revista científico-profesional, vol. 5, no. 12, pp. 637–653, 2020.
- [26] L. A. A. Silva, P. S. H. López, C. A. L. Vargas, and J. O. G. Zhagñay, "Estrés laboral docente, e-learning y tiempos de COVID-19," *Podium*, no. 41, pp. 105–118, 2022, doi: 10.31095/podium.2022.41.7.
- [27] V. V. Matute-Castillo, D. G. García-Herrera, S. C. Ochoa-Encalada, and J. C. Erazo-Álvarez, "Tecnología en tiempos de pandemia: una panorámica de salud mental en docentes," *Revista Arbitrada Interdisciplinaria Koinonía*, vol. 5, no. 5, pp. 344– 357, 2020, doi: 10.35381/r.k.v5i10.1047.
- [28] J. R. A. Insfrán, "Vocación docente e influencia en el aprendizaje en escolares en tiempo de pandemia," Ciencia Latina Revista Científica Multidisciplinar, vol. 5, no. 6, pp. 12425–12447, Dec. 2021, doi: 10.37811/cl_rcm.v5i6.1240.
- [29] G. Manzur-Vera, C. Rodriguez, M. Vargas, and K. Tapia, "Reflexiones de pandemia en la educación superior: revisión teórica del estrés laboral en el rol docente," *Technological Innovations Journal*, vol. 1, no. 3, pp. 60–75, 2022, doi: 10.35622/j.ti.2022.03.004.
- [30] A. P. P. Negrón, C. Giovannella, A. Espinoza-Valdez, M. Muñoz, D. B. Carranza, and M. Passarelli, "Adaptación al uso tecnología en el ámbito educativo durante la pandemia derivada del COVID-19 en México," *ReCIBE. Revista electrónica de Computación, Informática, Biomédica y Electrónica*, vol. 10, no. 2, pp. 1–24, 2021, doi: 10.32870/recibe.v10i2.222.
- [31] A. Saldívar-Garduño and K. E. Ramírez-Gómez, "Salud mental, género y enseñanza remota durante el confinamiento por el COVID-19 en méxico," *Persona: Revista de la Facultad de Psicología*, no. 023, pp. 11–40, 2020, doi: 10.26439/persona2020.n023(2).5011.
- [32] M. I. V. de V. García and M. I. G. Gambarte, "Resilience as a protective factor of chronic stress in teachers," *European Journal of Investigation in Health, Psychology and Education*, vol. 9, no. 3, pp. 159–175, Sep. 2019, doi: 10.30552/ejihpe.v9i3.332.

- **3**055
- [33] I. L. Yupari-Azabache, H. C. Rabanal-León, M. Z. Guzmán-Cárdenas, and J. A. Rodríguez-Azabache, "Estudio comparativo del estrés laboral y características del docente en tiempos de pandemia: perú-colombia," in CICIC 2022 - Decima Segunda Conferencia Iberoamericana de Complejidad, Informatica y Cibernetica en el contexto de the 13th International Multi-Conference on Complexity, Informatics, and Cybernetics, IMCIC 2022 - Memorias, 2021, pp. 79–84, doi: 10.54808/CICIC2022.01.79.
- [34] I. A. Corrales and K.-W. C. Chao, "Las percepciones de docentes costarricenses de francés sobre la enseñanza remota de emergencia en el año 2020 en la universidad de costa rica," *Actualidades Investigativas en Educación*, vol. 21, no. 3, pp. 1–36, 2021, doi: 10.15517/aie.v21i3.46457.
- [35] F. T. Zambrano, P. T. Zambrano, and N. A. Tubay, "Reformas curriculares, transectos educativos y perspectivas de docentes durante la pandemia por COVID-19 en ecuador," *Revista Científica de la Universidad de Cienfuegos*, vol. 15, no. 5, pp. 255–266, 2023.
- [36] G. G. López et al., "Tensiones y realidades de los docentes universitarios frente a la pandemia COVID-19," European Journal of Health Research, vol. 7, no. 1, pp. 1–13, 2021, doi: 10.32457/ejhr.v7i1.1396.
- [37] A. F. Paredes, D. C. Pancca, S. A. Ccopa, C. R. Y. Saico, and Y. M. P. Vanegas, "Actividad física, estrés y su relación con el índice de masa corporal en docentes universitarios en pandemia," *Comunicción: Revista de Investigación en Comunicación y Desarrollo*, vol. 12, no. 3, pp. 175–185, 2021, doi: 10.33595/2226-1478.12.3.528.
- [38] V. Orrego, "COVID-19 y salud mental docente," Revista Mexicana de Investigacion Educativa, vol. 28, pp. 587-609, 2023.
- [39] J. F. Varela-Guerra, D. I. Morales-Galindo, E. Farfán-Mejía, G. Estrada-González, and G. S. García-Villegas, "Orientación educativa y pandemia: retos y alcances durante la emergencia sanitaria por COVID," *Psicología Unemi*, vol. 7, no. 13, pp. 32–43, 2023, doi: 10.29076/issn.2602-8379vol7iss13.2023pp32-43p.

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