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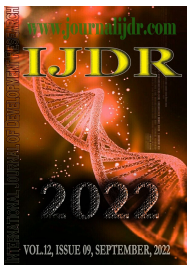

RESEARCH ARTICLE OPEN ACCESS

REFERRED SYMPTOMATOLOGY OF MENTAL DISORDERS IN UNIVERSITY PROFESSORS AND THE DIFFICULTIES IMPOSED BY REMOTE TEACHING DURING THE COVID-19 PANDEMIC

Evelyn Schulz Pignatti* **and Catarina Silva**

[1]Student of the Doctoral Program at the Faculty of Human Motricity
[2]Faculty of Human Kinetics, University of Lisbon

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Corresponding author:
Evelyn Schulz Pignatti

ABSTRACT

Teaching in university education requires intellectual, professional and pedagogical skills, which added to the requirements related to changes in the education system in the context of the COVID-19 pandemic, constituted an even more complex and challenging process for these professionals, raising a situation of extreme vulnerability to triggering and worsening mental disorders. The objective of this study was to characterize the groups evaluated in terms of sociodemographic and employment data and to determine the prevalence of referred mental disorders. We also sought to identify the association of mental disorders of stress, anxiety, depression and negative affectivity referred to by university professors and some of the difficulties inherent to teaching during the COVID-19 Pandemic with exclusive or partial remote work modality. Fore such, data collection was performed in a virtually using the following instruments: Depression, Anxiety and Stress Scale (DASS-21 Brazilian version), and the Socio-demographic, Habits, Lifestyle and Work Aspects Questionnaire. There was a high prevalence of mental disorders in these teachers, but the type of work was not associated with the symptoms mentioned, as well as the difficulties and obstacles faced in the practice of teaching, in this pandemic period, was not associated with the fact that teachers are linked to exclusively or partially to remote teaching.

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INTRODUCTION

In March 2020, COVID-19 was declared by the World Health Organization (WHO) as a pandemic due to the high rate of transmission and worldwide spread of the virus (WHO, 2020). The COVID-19 pandemic scenario showed a rapid spread, which corroborated the creation of many controversial and divergent information of facts still unknown and undefined, which gave rise to another concomitant scenario that was the increase in the triggering of mental disorders (Lima *et al*, 2020; Talevi *et al*, 2020; Vindegaard *et al*, 2020; Campos *et al*, 2020). The current historical moment of the pandemic has brought about severe implications and changes throughout society and institutions, in which many workers had to reconquer or readapt their functions within this drastic scenario of crises and uncertainties. Remote work was imposed on a large part of the professional classes around the world, with no time for people to plan and acquire minimum conditions and skills for their work (Coutarel *et al*., 2020). The use of virtual environments was normalized, but considerations of vulnerability of people and the negative effects arising from the constant use of resources and technological innovations, such as physical and psychological disorders, were excluded. Among the professional classes most involved in this change are teachers, who for some reasons already intrinsic to the practice of teaching, are among the professions most exposed to mental disorders. Therefore, the objective of this study was to track the severity of negative affectivity mental disorders and some difficulties arising from the changes inherent to remote teaching, such as the difficulty of adapting to distance classes, lack of skill and/or knowledge of the required technologies, in addition to the obstacles faced in obtaining support to solve the problems arising from the use of digital tools, and relate this data to the work modality imposed on university professors in the face of the COVID-19 pandemic scenario.

THEORETICAL REFERENCE

The importance of mental health has been recognized by the World Health Organization (WHO) since its inception, attested in the definition of health as a state of complete physical, mental and social well-being and not merely the absence of infirmity.

In the research carried out by Wang *et al*. (2020), the COVID-19 pandemic had moderate to severe impacts on the mental health of 53.8% of the Chinese population, and of these affected individuals, 16.5% were related to depressive symptoms, 28.8% to symptoms of anxiety and 8.1% stress symptoms. It is important to note that of these 1,210 participants in this research, most participants spent an average of 20 to 24 hours a day at home. Social isolation was adopted as the main measure to control and prevent the COVID-19 disease, and among the various stressors resulting from this measure are the distancing from family and friends, uncertainty about the duration of events, the accumulation of tasks during activities of homeschooling and homeworking that brought drastic changes in the family routine, in addition to the loss of the right to come and go and the loss of freedom that provided a greater probability of triggering stress (Pereira *et al*., 2020). The study by Campos *et al*. (2020) evaluated the mental health of adults in all Brazilian states during the COVID-19 pandemic, and found high prevalence rates of depression (61.3%), anxiety (44.2%) and stress (50.8%). The highest risks were related to younger age, previous mental disorder, and being female. Garrido and Garrido (2020) related anxiety to panic attacks, to the strong feeling of constant fear and alertness. This symptom being more frequent in people who follow the news and media, causing stereotypes and discrimination that added to the abominable reality of fakes news make the understanding of this entire current situation even more complex, and may even affect and decrease the immune response of affected people.

The COVID-19 pandemic has intensified levels of stress and anxiety in healthy people and increased the symptomatology of those with previous mental disorders (Ramírez-Ortiz *et al*., 2020). Campos *et al*. (2020) found that 85.5% of individuals who were not diagnosed with mental disorders reported onset facing the pandemic, and of individuals who already had these disorders, 96.2% reported new symptoms in this period. Another issue to be considered is the presence of secondary traumatization, especially those individuals endowed with greater empathy for the lives of others, those who suffered or were victims of a specific event. Moreira *et al*. (2020), were corroborated by other epidemic moments, when stating about the lasting and even permanent period of the impacts generated in these contexts and the influence of these factors in the origin of post-traumatic stress. The study by Huang *et al*. (2020), highlighted that after a month of the COVID 19 epidemic in China, significant data on the prevalence of post-traumatic stress were detected, especially in women and health professionals. A review by Brooks *et al*. (2020), suggests that the psychological impact of quarantine is very broad, substantial and lasting, related to fear of infection, feelings of frustration and boredom, scarcity of supplies, disconnected information, in addition to the medium and long-term repercussions of issues related to finances and stigma stemming from the COVID-19 disease. This current health crisis has generated an immeasurable economic and social impact in Brazil, in addition to the unpreparedness of the political leadership, divergences and distortions of information, which have led to high levels of health, economic and political insecurity in the Brazilian population. Among the various work activities, teaching is one of the most stressful professions, due to the high level of demand and involvement with people. The association of the various factors that lead to Burnout Syndrome in this professional class has become increasingly evident. (Prado *et al*., 2017). The COVID-19 pandemic has caused abrupt changes in the demand for the work process of teachers. Mastery in the use of digital tools and adequacy of didactics for the practice of virtual teaching were required, which had effects on the mental health of these (Gomes *et al*, 2021). Many mental disorders related to COVID-19 have affected teachers in China, France, the United Kingdom and North America, where technology-mediated work has been associated with psycho-emotional distress (Wang *et al*, 2020; Araújo *et al*, 2020; Gomes *et al*., 2020; Gomes *et al*. al, 2021). Souza *et al*, (2021) evaluated the conditions of teaching work during the COVID-19 pandemic related to the mental health of Brazilian teachers, and found that the change from in attendance teaching to remote teaching generated difficulties for 92% of the sample, especially with regard to teaching didactics and difficulty in communication and access to students. Another study carried out at the Federal Institutes of Education, Science and Technology in Brazil revealed the lack of technical, methodological and strategic domain for online teaching (Castaman; Rodrigues, 2020). A literature review about teachers' mental health, carried out by Brognoli *et al*. (2020), found that work overload has become an important risk factor for mental illness, in addition to the lack of social and psychological support for these teachers. Besides teachers, it is important to consider the psychological impact of students in this pandemic context. Maia and Dias (2020), when evaluating the levels of depression, anxiety and stress in university students, found that the group of students who integrated the data collection in the pandemic period had significantly higher levels of depression, anxiety and stress when compared to the other study group evaluated in the previous period. These results suggest that the pandemic had negative psychological impacts on these individuals, which makes this learning and relationship context more complex and challenging. Identifying the prevalence of mental disorders in university professors and understanding the relationship between these symptoms and the modality of work, as well as the frequency and association of some maladjustments and obstacles in the practice of remote teaching benefits a higher quality of the education provided, and a better general quality of life of these professionals. This knowledge will support actions, plans, training and resources that can be defined based on current needs

METHODOLOGY

The sample consisted of professors from two University Institutions in the State of Goiás, Brazil. The inclusion criteria were: university teachers who had been teaching for more than 6 months and were active in teaching in the exclusive or partial remote teaching modalities, and willing to voluntarily participate in the research. As exclusion criteria, the following were adopted: professors who were using controlled medication (psychotropics) of continuous use for a period of 12 months or more, and professors who were away from their activities and/or on leave for any reason. Data collection was carried out using the following instruments: Depression, Anxiety and Stress Scale (DASS-21 Brazilian version), as this is an adequate and validated resource in Brazil for assessing the prevalence of symptoms of stress, anxiety, depression and negative affectivity, and by the socio-demographic, habits and lifestyle and work aspects characterization questionnaire created by the authors based on research and publications on the same theme. All questionnaires applied are self-explanatory and easy to understand. The data collection of the study was carried out virtually. The questionnaires were transported to the SurveyMonkey online platform and forwarded to teachers via email. All the information necessary for the proper clarification of the participants was sent in the body of the e-mail and the Free Informed Consent Term was integrated into the first part of the online questionnaire. The professors had access to the questionnaires, telephone and e-mail of the researcher in case of doubts, suggestions and/or dropouts. It was only allowed to fill out the questionnaire by e-mail. The virtual use of the questionnaires created an automatic database, which allowed the direct transfer to the SPSS version 25 statistical program, thus avoiding errors and failures in the transfers and typing of the collected data. Incompletely filled out questionnaires were eliminated. A total of 508 (five hundred and eight) links were sent to the teachers, containing all the instruments applied. Of the total number of teachers, 220 responded to the questionnaire. When cleaning the database, 57 teachers were excluded for using controlled (psychotropic) medication on a regular basis and one teacher was removed from the database for not having filled out the questionnaires completely. Of these 162 remaining teachers, those who did not report being linked to any modality of remote teaching were excluded, that is, 133 participants are part of the final sample, with a group composed of 48 teachers who were in the exclusive remote teaching modality and the other 85 teachers in the partial remote teaching modality, that is, part of the activities carried out in person and another part carried out at a distance. Data analysis was performed using the SPSS version 25 program, in which the respondents from the two institutions were integrated into a single

sample. For data analysis, descriptive analysis was first performed (central tendency and dispersion parameters and absolute and relative frequencies). The independent variables considered were: age, sex, having or not having dependents living in their respective homes, frequency of performing household chores, total weekly workload, number of daily periods worked, accumulated working time, in addition to the difficulties faced in this period such as difficulty with physical and material resources, lack of skill and/or knowledge with the required technologies, difficulty in adapting to work schedules, difficulty in interpersonal relationships with bosses, difficulty in interpersonal relationships with the work team, difficulty adapting to distance classes, and finally, difficulty in obtaining support for technological problems. The dependent variables applied were: the severity of the referred symptoms of stress, anxiety, depression and negative affectivity. To analyze the association between the levels of severity of mental symptoms and the type of work in each group, the Mann-Whitney test was used with a significance value of $p > .05$, and to assess the association between the difficulties found and exclusive or partial remote teaching, the Chi-Square test was also considered with $p > .05$.

RESULTS AND DISCUSSION

The average age of the participants in the total sample was 40.27 years and a median of 39 years. Of the total number of teachers evaluated, 52.6% were male and 47.4% were female. As for marital status, 66.9% reported being married and/or in a common law marriage, and 23.3% were single and 8.3% were divorced and/or widowed. Of the total sample, 61.7% reported having dependents who live in their homes and 63.1% perform domestic chores as a frequent practice in their daily routine. As for work characteristics, it was found that in the exclusive remote work group, the teachers, because they were older, also had more time accumulated in years of teaching and most of them reported not working anywhere else besides the university (Table 1). In both groups, the highest percentage in relation to the employment relationship was civil public service, and as for the number of periods of the day in which they work, the highest reference was for the category up to two periods. The total weekly workload was higher for the partial remote group, with 63.1% reporting working more than 40 hours per week, considering that these are the ones that presented the percentage of 56.5% of professors linked to other work functions in addition to teaching at the aforementioned universities.

The COVID-19 pandemic affected the lives of university professors in terms of financial, affective and even motivational aspects, resulting from the new demands in the social and work routine of these workers (Santos *et al* 2021). This fact was observed in the present study, in which, of the 162 participants, only 29 professors were excluded because they were not linked to any form of remote teaching. According to Teixeira *et al* (2020), findings from a cross-sectional study suggested that the organization of teaching work and mental health are closely related. These considerations, added to all the other changes resulting from such a peculiar pandemic period, somehow provide some foundations for understanding such expressive rates of prevalence of the symptoms of the mental disorders evaluated. When analyzing the prevalence of symptoms of mental disorders in this sample according to the data presented in Table 2, it is observed that normal and mild results did not occur for negative affectivity disorders, anxiety and depressive symptoms, only for stress. Considering that, for those professors who were exercising their activities in the exclusive remote work modality, the severe symptoms of stress stood out for affecting 16.7%, compared to the professors of the partial remote teaching modality, the severe symptoms of stress affected only 4,7%. Likewise, for the symptoms of depression, the percentages of the most severe cases affected more teachers in exclusive remote teaching, that is, 10.4% of extremely severe cases compared to 5.9% of teachers in partial remote teaching. Depending on the symptoms already presented, the general negative affectivity also obtained higher percentages of more serious affections in those professors who did not have any of their work activities in attendance. As for anxiety symptoms, teachers in partial remote activity had a higher percentage of severe cases, but in extremely severe cases the percentages were very similar between the groups, a fact that differs from the other symptoms investigated, as anxiety may be related to several other social determinants and not just to work, such as the assumptions of the theory of sustainable development that defends the relationship between demographic, economic, safety and security, environment, in addition to cultural aspects as a conceptual structure and determinant of mental health (Lund, *et al*, 2018). The high frequency of severe mental symptoms reported by teachers in this period can be explained by several factors, and for Leitão and Capuzzo (2021), the devaluation of the professional class based on society's judgment in categorizing remote teaching as a modality in which the teacher is absent from most of their work activities and continues to receive their salary to stay at home, thus disregarding all the challenges and difficulties faced by these professionals. Disregarding the need to innovate and reinvent teaching strategies in the search for quality maintenance and student learning, in addition to the need to overcome all obstacles and responsibilities that predisposed these teachers to get sick from a physical and mental standpoint (Santos, *et al*, 2021). When carrying out a survey of the frequency of some difficulties in relation to remote teaching, it was found that those teachers who were in the exclusive remote modality, the misfits evaluated were more expressive. Difficulties with physical and material resources always or almost always affected 14.6% of them, while teachers of the partial modality only 8.3%. Another question investigated was the lack of ability and/or knowledge with the technologies required for the teaching modality in question, and the frequency of this difficulty was 27.1% frequent and 8.3% always or almost always frequent in teachers working in the exclusively remote teaching and 8.3% and 5.9% respectively for teachers of partially remote teaching. The difficulty in adapting to working hours was more frequent in those who performed all work activities at home in this period, considering that 18.8% reported that this misfit was frequent and 12.5% almost always or always present. Interpersonal relationship difficulties with the boss and with the work team in general were infrequent in both groups, a fact that is likely to be justified by the fewer interactions during the pandemic. As for the difficulty of adapting to distance classes, only 4.8% of teachers in the partially remote teaching modality reported that it always or almost always existed, compared to data of greater expressiveness of 14.6% of teachers of exclusively remote teaching. The difficulties in obtaining support to solve technological problems once again stood out in the group of exclusively remote teachers, with 17% always and almost always referring to the occurrence of this mismatch, which for the partially remote group was only 7,1% of professors who claimed high frequency of this fact, according to the data presented in Table 3.

Considering a greater relationship with the remote teaching modality, three of these difficulties were selected for the continuation of the descriptive and association analyzes, namely: the difficulty of adapting to distance classes, the lack of skill and/or technological knowledge and the difficulties faced in obtaining support for technological problems. The more advanced age, that is, the professors aged 40 years or more, and who, by the way, also comprised the group with the most accumulated teaching time (over 12 years), the frequency of difficulties was higher, except for the partial remote group that teachers up to 39 years old and with up to 11 years of accumulated working time had a higher frequency of difficulty in obtaining support for technology problems when compared to those of older age and less working time. In fact, younger individuals are somewhat more adapted and tend to have greater skills in the use of technological resources, which can interfere with the frequency of dealing with these difficulties. A study carried out with teachers in the United States confirms the absence of curricular components in teacher training that generate competence for the use of digital technologies, in addition to the mental suffering related to the wear and tear in the organization of virtual classes, recording of podcasts, application of tests and above all, the concern and demand for the responsibility to ensure quality learning for students (Mckimm *et al*, 2020; Shaw, 2020). According to Castaman and Rodrigues (2020), Brazilian teachers were not digitally literate,

Table 1. Sociodemographic variables and work aspects in relation to Exclusive and Partial Remote work

		Are you working from home (telework)?					
		Total		Yes, exclusively		Yes, partially	
		f	%	*f*	%	*f*	%
Age cut 39 n=133	Until 39 years old	68	51,1	21	43,8	47	55,3
	Over 40 years old	65	48,9	27	56,3	38	44,7
Sex n=133	Female	63	47,4	22	45,8	41	48,2
	Male	70	52,6	26	54,2	44	51,8
Marriage Status: n=133	Single	31	23,3	12	25,0	19	22,4
	Married	78	58,6	25	52,1	53	62,4
	Common law marriage	11	8,3	5	10,4	6	7,1
	Divorced	11	8,3	5	10,4	6	7,1
	Widower	2	1,5	1	2,1	1	1,2
Minors, elders or disabled dependents at home n=128	No	49	38,3	19	42,2	30	36,1
	Yes	79	61,7	26	57,8	53	63,9
Frequency of household chores done N=133	Never/Rarely	49	36,8	14	29,2	35	41,2
	Sometimes	39	29,3	12	25,0	27	31,8
	Often./Always	45	33,8	22	45,8	23	27,1
Employment kind n=132	Tenure	114	86,4	42	87,5%	72	85,7
	Contract	18	13,6	6	12,5%	12	14,3
Work elsewhere apart from the University n=133	No	74	55,6	37	77,1	37	43,5
	Yes	59	44,4	11	22,9	48	56,5
Workload Weekly Total N=132	Less than 40 hours	61	46,2	30	62,5	31	36,9
	Over 40 hours	71	53,8	18	37,5	53	63,1
Period of Categorized Work n=133	Until 2 Periods	97	72,9	35	72,9	62	72,9
	3 Periods	36	27,1	13	27,1	23	27,1
Time of Categorized Work n=127	Until 11 years	65	51,2	20	44,4	45	54,9
	Over12 years	62	48,8	25	55,6	37	45,1

Table 2. Symptomatology of Mental Disorders in relation to Exclusive and Partial Remote Work

		Are you working from home (telework)?					
		Total		Yes, exclusively		Yes, partially	
		f	%	*f*	%	*f*	%
Stress_ n=133	Normal	62	46,6	21	43,8	41	48,2
	Light	18	13,5	7	14,6	11	12,9
	Moderate	37	27,8	11	22,9	26	30,6
	Severe	12	9	8	16,7	4	4,7
	Extremely Severe	4	3	1	2,1	3	3,5
Anxiety_ n=133	Normal	0	0	0	0,0	0	0,0
	Light	0	0	0	0,0	0	0,0
	Moderate	72	54,1	27	56,3	45	52,9
	Severe	34	25,6	11	22,9	23	27,1
	Extremely Severe	27	20,3	10	20,8	17	20,0
Depression n=133	Light	0	0	0	0,0	0	0,0
	Moderate	0	0	0	0,0	0	0,0
	Severe	109	82	37	77,1	72	84,7
	Extremely Severe	14	10,5	6	12,5	8	9,4
	Light	10	7,5	5	10,4	5	5,9
Negative Affectivity n=133	Light	0	0	0	0,0	0	0,0
	Moderate	0	0	0	0,0	0	0,0
	Severe	92	69,2	30	62,5	62	72,9
	Extremely Severe	30	22,6	13	27,1%	17	20,0%
	Light	11	8,3	5	10,4%	6	7,1%

Table 3. General difficulties faced in work practice in relation to the type of work

		Are you working from home (telework)?					
		Total		Yes, exclusively		Yes, partially	
		f	%	*f*	%	*f*	%
Difficulty with physical and material resources n=132	Never/Rarely	96	72,7	33	68,8	63	75,0
	Often	22	16,7	8	16,7	14	16,7
	Always/Almost always	14	10,6	7	14,6	7	8,3
Lack of skill and/or knowledge with the required technologies n=133	Never/Rarely	97	72,9	31	64,6	66	77,6
	Often	27	20,3	13	27,1	14	16,5
	Always/Almost always	9	6,8	4	8,3	5	5,9
Difficulty adapting to work schedules n=133	Never/Rarely	104	78,2	33	68,8	71	83,5
	Often	17	12,8	9	18,8	8	9,4
	Always/Almost always	12	9	6	12,5	6	7,1
Difficulty in interpersonal relationships with the bosses n=133	Never/Rarely	128	96,2	48	100	80	94,1
	Often	3	2,3	0	0,0	3	3,5
	Always/Almost always	2	1,5	0	0,0	2	2,4
Difficulty in interpersonal relationships with the work team n=133	Never/Rarely	125	94	45	93,8	80	94,1
	Often	6	4,5	2	4,2	4	4,7
	Always/Almost always	2	1,5	1	2,1	1	1,2
Difficulty adapting to distance classes n=131	Never/Rarely	89	67,9	29	60,4	60	72,3
	Often	31	23,7	12	25,0	19	22,9
	Always/Almost always	11	8,9	7	14,6	4	4,8
Difficulty obtaining support for technological problems n=132	Never/Rarely	99	75	34	72,3	65	76,5
	Often	19	14,4	5	10,6	14	16,5
	Always/Almost always	14	10,6	8	17,0	6	7,1

the inexistence of clear limits between the work space and family. This type of work tends to focus on peaks, which is a characteristic of online teaching and which can contribute to a greater overload of these professionals. Corroborating the data found in this sample, in the study by García-González *et al*. (2020), the cognitive demand of online work presented, in addition to the qualitative content in terms of high intellectual demands, the quantitative content, which was present due to the high workload sustained for a long time. A stressful factor is the pace of work centered on the pressure of meeting deadlines intrinsic to remote learning, that is, the time available to fulfill a task used to be insufficient. This ends up generating an increase in the working day and a consequent decrease in personal and family time to meet the demands of work. Working from home increases the number of working hours (Messenger e Gschwind, 2016). Although the descriptive analyzes presented suggest that the exclusively remote work group corresponded to results of greater severity of the mentioned mental symptoms and greater difficulties in teaching practice, when evaluating the symptoms of mental disorders of stress, anxiety, depression and negative affectivity in this sample of teachers, it was found that none of these manifestations showed a statistically significant association in relation to the type of work, that is, the frequency of handling the practice of online teaching, whether exclusive or partial, did not interfere with the severity of the mental symptoms investigated (stress U=1,892.5; p >.47; anxiety U=1,979.0; p >.75; depression U=1,723.0; p >.08 and negative affectivity U=1,886.5; p >.46). This supports the thought that the exclusivity of online teaching was not associated with greater severity of these symptoms, reinforcing the idea that the conciliation between the two modalities also brings its challenges, in addition to the fact that there are other factors involved, whether of a sociodemographic nature, work and even related to the peculiar pandemic period experienced. After all, age, sex, previous health problems, economic situation, job stability, accumulated working time, other jobs, workload and other factors can be considered as triggering and worsening conditions for negative affectivity symptoms. Considering age, in the study carried out by Campos *et al*. (2020), in which the demographic and health characteristics of Brazilians who listed their mental health status during the COVID-19 pandemic were tracked, it was found that changes in mental status were more significant in younger individuals, as indicated and also considered by Palgi *et al*. (2020) as the age group most susceptible to the feeling of loneliness due to social isolation. The work by Salari *et al*. (2020) also highlighted that the psychological effects of COVID-19 were more significant in underdeveloped countries in the 21-40 age group, as they are more concerned with the economic challenges imposed by the pandemic, in addition to greater access to social media. Another no less important factor highlighted by Sanchez (2015), refers to job stability in the context of teaching in university education as a factor related to psycho-emotional reactions that influence states of greater tranquility or not, and greater possibilities for life planning. Constant changes in the workload of university professors in Brazil are frequent, that is, new management implementations are necessary every semester, creating a favorable climate for competitiveness among professors themselves, which can configure a scenario of dispute over working hours. that guarantee the suppression of the salary needs of these professionals (Coutinho *et al*., 2011). Despite this job stability in this sample being linked to the fact that most of the teachers have tenure, the prevalence of symptoms of mental disorders was present in a very significant way, as presented and discussed above. Among the various challenges inherent to the remote teaching modality, the difficulty of adapting to distance classes (χ^2= 4.141; p >.13), the lack of skill and/or technological knowledge (χ^2= 2.692; p >.26) and the difficulties faced in obtaining support for technological problems (χ^2= 3.616; p>.16), did not present a statistically significant association with the exclusive and partial differential factor evaluated, pointing once again to the fact that these obstacles are present in teaching online regardless of the exclusive condition or associated with face-to-face teaching. García-González *et al*. (2020) highlights mental fatigue related to the main tool of online teaching, which is to manage and master technological tools that undergo rapid changes in the technological field, which requires knowledge, competence, training and constant updating.

They also highlight the difficulty derived from the lack of face-to-face contact in remote teaching, which makes formal and informal communication within the organization difficult and limits the possibilities of support in universities, which can be considered an important psychosocial risk for the teachers involved. Other works confirm the negative repercussion of the lack of skill in handling these resources on the mental health of teachers in times of the COVID 19 pandemic (Gomes *et al*, 2021; Santos, 2021; Souza *et al*, 2021). The authors discuss the lack of autonomy rooted in a rigid schedule of online teaching imposed by the educational system and not by workers, regardless of the form being exclusive or not. Therefore, mental disorders are part of a much broader view of associations beyond the ideal conditions and modality of work, even more so in the face of such a peculiar and drastic scenario as the COVID-19 pandemic.

FINAL CONSIDERATIONS

The findings of the present study confirmed serious implications for the mental health of university professors in the period of the COVID 19 pandemic. All changes arising in the university educational context may last, which makes it important to emphasize research in the context of determining factors of symptoms of negative affectivity, stress, depression and anxiety related to remote teaching. Although the exclusive factor of remote teaching did not present a significant association in this sample for the severity of the mentioned mental disorders, it is necessary to continue the analyzes in future works, in order to favor the implementation of preventive interventions and action strategies for a practice of teaching guided and subsidized to a state of mental and emotional health of higher quality. Although there are limitations in this research imposed by the small sample size and the scarcity of data related to the mental health of these professors in the pre-pandemic period, it was found the presence of difficulties faced by professors during this phase of abrupt change both for professors of the exclusively remote and partially remote modalities.

REFERENCES

Araújo FJO *et al*. (2020). Impact of sars-cov-2 and its reverberation in global higher education and mental health. Psychiatry Res. 288: e112977.

Araújo TM, Carvalho FM (2009). Condições de trabalho docente e saúde na Bahia: Estudos epidemiológicos. Educ. Soc. 30: 427-449.

Brognoli E, Pagnan J, Longen W (2020). Mental Health in Education Workers. Braz. J. Health Rev. 3: 11521-11530.

Brooks SK *et al*. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet. 395: 912-920.

Campos MR *et al*. (2020). Carga de doença da COVID-19 e de suas complicações agudas e crônicas: reflexões sobre a mensuração (DALY) e perspectivas no Sistema Único de Saúde. Cad. Sau. Pub. 36:e00148920.

Castaman AS, Rodrigues RA (2020). Distance Education in the COVID crisis-19: an experience report. Res. Soc. Develop. 9: e180963699.

Coutarel F, Pueyo V, Lacomblez M, Delgoulet C, Barthe B, Poète V, Garrigou A, Dugué B, Blatter C, Grunstein A, Liehrmann E, Michez B, Negroni P, Thomas C (2020). Crisis sanitaria y crisis del trabajo : ¿una oportunidad en el caos ? Sociol. Trab. 17-21.

Coutinho MC, Magro MLPD, Budde C (2011). Entre o prazer e o sofrimento: um estudo sobre os sentidos do trabalho para professores universitários. Psicol. Teo. e Pratic. 13: 154-167.

Dominguez-Gómez JA (2004). Riesgo psicosocial en la universidad: estresores propios del docente universitario. Revista Salud de los Trabajadores. 2: 1-36.

Faul F, Erdfelder E, Buchner A, Lang A (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. Beh. Res. Meth. 41: 1149–1160.

Ferreira DC *et al*. (2020). Intolerance of uncertainty and mental health in Brazil during the Covid-19 pandemic. Suma Psicol. [online]. 27: 62-69.

Fiocruz – Fundação Oswaldo Cruz (2020) Saúde mental e atenção psicossocial na pandemia covid-19: recomendações gerais. Fiocruz.

García-González M, Torrano F, García-González G (2020). Analysis of Stress Factors for Female Professors at Online Universities. International Journal of Environmental Research and Public Health. 17: e2958.

Garrido RG, Garrido FSRG (2020). COVID-19: Um panorama com ênfase em medidas restritivas de contato interpessoal. Interf. Cient. - Sau e Amb. 8: 127-141.

Gomes NP *et al*. (2021). Saúde mental de docentes universitários em tempos de covid-19. Sau. e Soc. [online]. 30: e200605.

Henssler J, Stock F, van Bohemen J, Walter H, Heinz A, Brandt L (2021). Mental health effects of infection containment strategies: quarantine and isolation-a systematic review and meta-analysis. Eur Arch Psychiatry Clin Neurosci. 271: 223-234.

Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, Zhang L, Fan G, Xu J, Gu X, Cheng Z, Yu T, Xia J, Wei Y, Wu W, Xie X, Yin W, Li H, Liu M, Xiao Y, Gao H, Guo L, Xie J, Wang G, Jiang R, Gao Z, Jin Q, Wang J, Cao B (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet. 395: 497-506.

Leitão KS, Capuzzo DB (2019). Síndrome de Burnout, formação de professores e sua desvalorização: uma possível relação. Anais do IV Seminário Nacional da Rede MAPA.

Lima C, Carvalho P, Lima I, Nunes J, Saraiva JS, de Souza RI, da Silva C, Neto M (2020). The emotional impact of Coronavirus 2019-nCoV (new Coronavirus disease). Psychiatry Res. 287: e112915.

Lund C *et al*. (2018). Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews. The Lancet Psychiatry. 5: 357-369.

Maia BR, Dias PC (2020). Ansiedade, depressão e estresse em estudantes universitários: o impacto da COVID-19. Estudos de Psicologia (Campinas) [online]. 37: e200067.

Marqueze EC, Castro Moreno CRC (2009). Satisfação no trabalho e capacidade para o trabalho entre docentes universitários. Psicologia Em Estudo, 14: 75:82.

Mckimm J *et al*. (2020). Health professions' educators' adaptation to rapidly changing circumstances: the Ottawa 2020 conference experience. Med Ed Publish. 9.

Messenger JC, Gschwind L (2016). Three generations of Telework: New ICTs and the (R)evolution from Home Office to Virtual Office. New Technology, Work and Employment, 31: 195-208.

Moreira WC, Sousa AR, Nóbrega MPS (2020). Adoecimento mental na população geral e em profissionais de saúde durante a COVID-19: scopingreview. Texto & Contexto – Enfermagem. 29: e20200215.

Morin CM, Carrier J (2020). The acute effects of the COVID-19 pandemic on insomnia and psychological symptoms, Sleep Medicine.

Organização Mundial da Saúde (2020) Doença de coronavirus (COVID-19) pandemia. Disponível em: https://www.who.int/emergencies/diseases/novel-coronavirus-2019

Palgi Y, Shrira A, Ring L, Bodner E, Avidor S, Bergman Y, Cohen-Fridel S, Keisari S, Hoffman Y (2020). The loneliness pandemic: Loneliness and other concomitants of depression, anxiety and their comorbidity during the COVID-19 outbreak. J. Affective Disord. 275: 109-111.

Pereira MD, De Oliveira LC, Costa CFT, De Oliveira Bezerra, CM, Pereira MD, Dos Santos CKA, Dantas EHM (2020). A pandemia de COVID-19, o isolamento social, consequências na saúde mental e estratégias de enfrentamento: Uma revisão integrativa. Research Society and Development, 9: e652974548.

Prado RL, Bastianini ME, Cavalleri MZ, Ribeiro SFR, Pizi ECG, Marsicano JA (2017). Avaliação da síndrome de Burnout em professores universitários. *Revista Da ABENO*, *17*: 21-29.

Ramírez-Ortiz J, Castro-Quintero D, Lerma-Córdoba C, Yela-Ceballos F, EscobarCórdoba F (2020). Consecuencias de la pandemia COVID-19 en la Salud Mental asociadas al aislamiento social. SciELO Preprints, 1: 1-21.

Reis EJF, Borges S *et al*. (2006). Docência e exaustão emocional. Educação & Sociedade [online]. 27: 229-253.

Sadir MA, Bignotto MM, Lipp MEN (2010). Stress e qualidade de vida: influência de algumas variáveis pessoais. Paidéia (Ribeirão Preto), 20: 73-81.

Salari N, Hosseinian-Far A, Jalali R, Vaisi-Raygani A, Rasoulpoor S, Mohammadi, M., Rasoulpoor S, Khaledi-Paveh B (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. Globalization and Health, 16: 57.

Sanchez HM (2015). Qualidade De Vida e a Qualidade De Vida No Trabalho. Universidade Federal de Goiás.

Santos GMRF, Silva ME, Belmonte, BR (2021). COVID-19: emergency remote teaching and university professors' mental health. *Revista Brasileira de Saúde Materno Infantil* [online]. 21: 237-243.

Santos LN, Rios CTF, Sardinha AHL, Santos MA, Junior CASF (2017). Avaliação da qualidade de vida no trabalho de enfermeiras de hospitais gerais. Revista de Enfermagem UERJ, 25: e18286.

Schmidt B *et al*. (2020). "Saúde mental e intervenções psicológicas diante da pandemia do novo coronavírus (COVID-19)". *Estudos de Psicologia.* 37.

Shaw K (2020). Colleges expand VPN capacity, conferencing to answer covid-19. Network World.

Slišković A, Sersić D (2011). Work Stress Among University Teachers: Gender and Position Differences. Arhiv za higijenu rada i toksikologiju. 62: 299-307.

Souza JM, Dell'Agli BAV, Costa, RQF, Caetano LM (2021). Docência na pandemia: saúde mental e percepções sobre o trabalho on-line. Teoria E Prática Da Educação, 24: 142-159.

Talevi D, Socci V, Carai M, Carnaghi G, Faleri S, Trebbi E, di Bernardo A, Capelli F, Pacitti F (2020). Mental health outcomes of the CoViD-19 pandemic. Riv Psichiatr. 55: 137-144.

Teixeira VLMO, Sousa MA, Navarro LC, Rodrigues AL (2020). Aula remota no Ensino Médio frente à pandemia da COVID 19: uma revisão bibliográfica. Interfaces do Conhecimento, 2: 1-18.

Tostes MV, Albuquerque GSCD, Silva MJDS, Petterle RR (2018). Sofrimento mental de professores do ensino público. Saúde em Debate, 42: 87-99.

Vindegaard N, Benros ME (2020). COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. Brain Behav Immun. 89: 531-542.

Wang J, Wang Z (2020). Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis of China's Prevention and Control Strategy for the COVID-19 Epidemic. Int J Environ Res Public Health. 17: 1-17.

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