

Burnout and emotional disorders in a sample of Chilean university teachers during the pandemic

Burnout y trastornos emocionales en una muestra de docentes universitarios chilenos durante la pandemia
Burnout e distúrbios emocionais em uma amostra de professores universitários chilenos durante a pandemia

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ABSTRACT

Introduction: Online teaching was one of the most prominent strategies adopted to sustain academic activity during the COVID-19 pandemic; however, this modality imposed high emotional demands on university faculty. **Objective:** To analyze the sociodemographic, occupational, and health-related characteristics of faculty members at a private Chilean university who experienced burnout and symptoms of stress, anxiety, and depression during the COVID-19 pandemic. **Method:** A quantitative, observational, correlational, and cross-sectional study was conducted in 2021 with a convenience sample of 124 faculty members. Data were collected using the Depression, Anxiety, and Stress Scale (DASS-21), the Maslach Burnout Inventory (MBI), and a self-administered survey on sociodemographic, occupational, and health variables, distributed via a web platform. Data analysis included descriptive statistics, as well as parametric and non-parametric tests (chi-square test of independence, Spearman and Pearson correlation coefficients, ANOVA, and Student's t-test for independent samples). **Results:** Among participants, 39.5% exhibited symptoms of depression, 54% anxiety, 58.1% stress, and 9.5% met criteria for burnout. Significant differences ($p < 0.05$) were observed in the burnout subscales across sociodemographic, occupational, and health variables. Likewise, significant differences were found in depression, stress, and anxiety scores across these same variables. **Conclusions:** The findings reveal a significant mental health burden

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among university faculty, underscoring the urgent need for comprehensive interventions that foster wellbeing and strengthen preparedness for future crisis scenarios similar to the pandemic.

Keywords

stress; psychological; anxiety; depression; burnout; psychological; faculty; coronavirus infections.

RESUMEN

Introducción: La docencia en línea fue una de las estrategias más relevantes para enfrentar la actividad académica durante la pandemia por covid-19; sin embargo, esta modalidad implicó elevadas exigencias emocionales a los docentes. **Objetivo:** Analizar las características sociodemográficas, laborales y de salud de docentes de una universidad privada chilena que presentaron *burnout* y síntomas de estrés, ansiedad y depresión durante la pandemia por covid-19. **Método:** Estudio cuantitativo, observacional, correlacional, de corte transversal. Se llevó a cabo en una muestra por conveniencia de 124 académicos durante 2021. Para la recolección de datos se utilizaron la Escala de Depresión, Ansiedad y Estrés; el Inventario de Burnout de Maslach y una encuesta de datos sociodemográficos, laborales y de salud, mediante una plataforma web. Los datos se analizaron con estadísticos descriptivos, pruebas paramétricas y no paramétricas (χ^2 para independencia, coeficientes de correlación de Spearman y Pearson, análisis de varianza y prueba t de Student para muestras independientes). **Resultados:** Un 39,5 % de los docentes sufría depresión; el 54 %, ansiedad; el 58,1 %, estrés, y el 9,5 %, *burnout*. Se encontraron diferencias significativas ($p < 0,05$) en las subescalas del síndrome de *burnout* para variables sociodemográficas, laborales y de salud. En tanto para depresión, estrés y ansiedad hubo diferencias significativas en variables sociodemográficas, laborales y de salud. **Conclusiones:** Se detectó una importante problemática de salud mental en el cuerpo docente que requiere intervenciones integrales que contribuyan a su bienestar y los preparen ante futuros escenarios como el vivido durante la pandemia.

Palabras clave

estrés psicológico; ansiedad; depresión; agotamiento psicológico; docentes; infecciones por coronavirus.

RESUMO

Introdução: O ensino online foi uma das estratégias mais relevantes para enfrentar a atividade acadêmica em tempos de pandemia de covid-19; no entanto, esta modalidade implicou elevadas exigências emocionais aos professores. **Objetivo:** Analisar as características sociodemográficas, acadêmicas e de saúde de docentes de uma universidade privada chilena com *burnout* e sintomas de estresse, ansiedade e depressão durante a pandemia de covid-19. **Método:** Estudo quantitativo, observacional, correlacional, transversal. Foi realizado em uma amostra de conveniência de 124 acadêmicos durante o ano de 2021. Para a coleta de dados foi utilizada a Escala de

Depressão, Ansiedade e Estresse; o Maslach Burnout Inventory, e um levantamento de dados sociodemográficos, de trabalho e de saúde, por meio de plataforma web. Para a análise dos dados, foram utilizados estatísticos descritivos, testes paramétricos e não paramétricos (teste Qui-quadrado para independência, coeficientes de correlação de Spearman e Pearson, ANOVA e teste t de Student para amostras independentes). **Resultados:** 39,5 % dos professores sofriam de depressão, 54 % de ansiedade, 58,1 % de estresse e 9,5 % de *burnout*. Foram encontradas diferenças significativas ($p < 0,05$) nas subescalas da síndrome de *burnout* para variáveis sociodemográficas, acadêmicas e de saúde. Em relação à depressão, ao estresse e à ansiedade, houve diferenças significativas nas variáveis sociodemográficas, laborais e de saúde. **Conclusões:** Foi detectado um importante problema de saúde mental no corpo docente que requer intervenções integrais que contribuam para o seu bem-estar e os preparem para cenários futuros como o vivido durante a pandemia.

Palavras-chave

estresse psicológico; ansiedade; depressão; esgotamento psicológico; docentes; infecções por coronavirus.

Introduction

Since its onset, the COVID-19 pandemic has altered people's lives and caused a variety of psychological problems, including fear, depression, insomnia, and anxiety (1); the latter being the most prevalent symptom in the population (2). In the field of education, an emergency shift to virtual learning had to be implemented (3), a situation that affected teachers due to inadequate working conditions and poor internet connectivity. In addition, most were unprepared to use technological tools, which led to extended working hours as they adapted their classes (4).

The internet became a key ally, as did information and communication technologies, which became essential tools for delivering education (5). However, the pandemic had a profound impact on teachers' mental health, with high global rates of anxiety (17%), depression (19%), and stress (33%) being reported (6).

The teaching profession is widely recognized as highly stressful (7), and the pandemic introduced additional factors on top of the usual workload and emotional strain. These included the need to adapt to online teaching, social isolation, difficulties balancing work and family life, salary

reductions, severe routine disruptions, school closures, and fear of illness (8–12). Moreover, teachers are more vulnerable to experiencing burnout syndrome (13), as they are required to perform multiple tasks and face high demands (14), which were exacerbated by the pandemic—especially among women, who had to manage both work responsibilities and family care (15), including supporting their children's schoolwork (16).

During the pandemic, high rates of stress, anxiety, and depression were reported among teachers in Latin America (17–19); a higher risk of mental health problems was even identified among university faculty aged 44 to 54, particularly women (20). Prior to the pandemic, Chilean society already faced significant mental health challenges, with high rates of depression (21). Among teachers, higher levels of *burnout* and poorer quality of life—particularly in physical and mental health domains—had already been reported compared to the rest of Latin America (22–24). As some authors have pointed out, the COVID-19 pandemic magnified human vulnerabilities, highlighting the need to investigate its psychosocial and occupational consequences among teachers, in order to help protect their health given its direct impact on educational quality (25).

Therefore, this study aimed to analyze the sociodemographic, occupational, and health characteristics of faculty members at a private Chilean university who experienced burnout and symptoms of stress, anxiety, and depression during the COVID-19 pandemic.

Methods

This research corresponds to a quantitative, observational, correlational, and cross-sectional study. It was conducted at a private university in the Valparaíso region (Chile) between July and September 2021. All full-time faculty members at the university ($n = 228$) were invited to participate. Of these, 124 agreed to take part in the study, resulting in a convenience sample representing 54.4% of the academic staff. Given

the remote conditions imposed by the pandemic, this sampling method was the most feasible for carrying out the research.

Inclusion criteria were: being a full-time faculty member, currently teaching classes, and agreeing to participate in the study by signing the informed consent form. Exclusion criteria included being on medical leave or vacation at the time of data collection. Faculty members were invited via institutional email, and data were collected through the Google Forms platform. Prior to completing the instruments, participants read the informed consent and indicated their agreement to participate in the study.

Three instruments were administered: the Depression, Anxiety and Stress Scale (DASS-21), developed by Lovibond and Lovibond in 1995 (26) and validated in Chile (27); the Maslach Burnout Inventory–Human Services Survey (MBI-HSS), developed by Maslach, Jackson, and Leiter (28) and validated in Chile (29); and a sociodemographic, occupational, and health survey designed by the researchers, consisting of single-choice items. The variables included are detailed in Table 1. During the data collection period, weekly reminder emails were sent to encourage faculty participation.

The DASS-21 is designed to assess symptoms of depression, anxiety, and stress. Among its advantages are its brevity (21 items) and its capacity to evaluate the three dimensions—depression, anxiety, and stress—simultaneously, with 7 items per subscale. It is a self-administered questionnaire that has been used in various contexts and demonstrates excellent internal consistency (30).

Participants rate each item using a 4-point Likert scale, indicating how frequently they experienced the described situation (0 = “Did not apply to me at all,” 1 = “Applied to me to some degree, or some of the time,” 2 = “Applied to me to a considerable degree or a good part of the time,” and 3 = “Applied to me very much or most of the time”). Higher overall scores indicate a greater degree of symptomatology. The cut-off scores for depression levels are as follows: mild (5–6 points), moderate (7–10

points), severe (11–13 points), and extremely severe (>14 points). For anxiety: mild (4 points), moderate (5–7 points), severe (8–9 points), and extremely severe (>10 points). For stress: mild (8–9 points), moderate (10–12 points), severe (13–16 points), and extremely severe (>17 points).

Therefore, the absence of stress symptoms corresponds to a score below 5; the absence of anxiety symptoms to a score below 4; and the absence of stress symptoms (again) to a score below 8. The internal consistency of the version validated for Chile is Cronbach's $\alpha = 0.91$. Construct validity analysis revealed a three-factor structure corresponding to the DASS-21 subscales: Factor 1: stress; Factor 2: depression; and Factor 3: anxiety, which together account for 49.99% of the total variance (27).

The MBI-HSS questionnaire is an instrument whose three-factor structure has been confirmed by multiple authors. It was developed specifically for professions in the service sector. The questionnaire consists of 22 items divided into three subscales: emotional exhaustion, depersonalization, and personal accomplishment. Respondents rate each item using a Likert-type scale that indicates the frequency with which they have experienced the described situation. The scale includes seven frequency levels, ranging from 0 (never) to 6 (every day). Burnout is identified when emotional exhaustion and depersonalization subscale scores are high, and personal accomplishment scores are low.

-The questionnaire establishes the following cut-off points for subscale severity levels:

-Emotional exhaustion: low (≤ 18 points), moderate (19–26 points), high (≥ 27 points);

-Depersonalization: low (≤ 5 points), moderate (6–9 points), high (≥ 10 points);

-Personal accomplishment: low (≥ 40 points), moderate (34–39 points), high (≤ 33 points) (28).

The internal consistency of the version validated in Chile is as follows: Cronbach's $\alpha = 0.86$ for emotional exhaustion; Cronbach's $\alpha = 0.72$ for depersonalization; and Cronbach's $\alpha = 0.76$ for personal accomplishment. Exploratory

factor analysis for construct validity confirmed the three-factor structure proposed by the authors of the MBI-HSS, explaining 42.4% of the total variance. Goodness-of-fit tests yielded satisfactory results, indicating strong alignment with the theoretical model. Once the model was confirmed, its discriminative capacity was assessed and found to be adequate (29).

Finally, for the study of sociodemographic, occupational, and health-related variables, a 27-item questionnaire was developed and validated by a panel of experts using the Question Appraisal System (QAS-99), a tool developed by Willis and Lessler (31) for evaluating the quality of survey questions prior to their use in research. The purpose of the QAS-99 is to identify potential issues in question wording and comprehension through a systematic review process. This system helps to improve the clarity, relevance, and accuracy of survey items, ensuring that participants interpret the questions correctly and that the data collected are valid and reliable.

Following data collection via the Google Forms platform, all questionnaires were coded to preserve participant anonymity. The data were then exported into an Excel spreadsheet and subsequently imported into SPSS software, version 21, for statistical analysis.

Once data were compiled, descriptive statistics were calculated, followed by exploratory and multivariate analyses. To determine relationships between sociodemographic, occupational, and health factors with levels of stress, burnout, anxiety, and depression, the chi-square (χ^2) test was used for categorical variables, and Spearman's or Pearson's correlation coefficients were applied depending on the nature of the variable (ordinal or numerical). A significance level of $p < 0.05$ was used for assessing associations, while $p < 0.05$ and $p < 0.10$ thresholds were used to explore differences in mean scores for emotional disorders and the characteristics under study.

Correlation coefficients range from -1 to 1 , with the following interpretations: $-0.9 < r < -1$ indicates a strong negative correlation; $-0.5 < r < -0.9$ a moderate negative correlation; $0 < r < -0.5$ a weak negative correlation; $r =$

0 indicates no correlation; $0 < r < 0.5$ a weak positive correlation; $0.5 < r < 0.9$ a moderate positive correlation; and $0.9 < r < 1$ a strong positive correlation (32).

Furthermore, sociodemographic, occupational, and health variables were compared with results from the MBI-HSS and DASS-21 questionnaires. Analysis of variance (ANOVA) and Student's t-test for independent samples were used, as normal distribution of the data was confirmed. This study adhered to the ethical principles outlined in the Declaration of Helsinki and was approved by the University's Scientific Ethics Committee on March 23, 2021.

Results

Table 1 summarizes the sociodemographic, occupational, and health characteristics of the faculty members under study who presented with *burnout* and symptoms of stress, anxiety, and depression during the COVID-19 pandemic.

Table 1.
Distribution of Sociodemographic, Occupational, and Health Characteristics in Faculty Members with Emotional Disorders

Variables	Dimension	Total Sample (n = 124)	Burnout (n = 12)	Depression (n = 49)	Anxiety (n = 65)	Stress (n = 72)
Sociodemographic Characteristics	Age (n [%])					
	Ages 25 a 34	13 (10.5)	3 (25.0)	8 (16.3)	9 (13.8)	9 (12.5)
	Ages 35 a 44	55 (44.4)	6 (50.0)	25 (51.0)	31 (47.7)	37 (51.4)
	Ages 45 a 54	39 (31.5)	2 (16.7)	14 (28.6)	21 (32.3)	23 (31.9)
	Ages 55 a 64	10 (8.1)	1 (8.3)	1 (2.0)	3 (4.6)	2 (2.8)
	> 64 years	7 (5.6)	---	1 (2.0)	1 (1.5)	1 (1.4)
	Gender (n [%])					
	Female	79 (63.7)	9 (75.0)	38 (77.6)	50 (76.9)	55 (76.4)
	Male	45 (36.3)	3 (25.0)	11 (22.4)	15 (23.1)	17 (23.6)
	Marital Status (n [%])					
	Married	61 (49.2)	7 (58.3)	18 (36.7)	29 (44.6)	28 (38.9)
	Divorced or Separated	14 (11.3)	---	5 (10.2)	6 (9.2)	12 (16.7)
	Single	46 (37.1)	4 (33.3)	25 (51.0)	29 (44.6)	30 (41.7)
	Civil Union	2 (1.6)	---	---	---	1 (1.4)
	Widowed	1 (0.8)	1 (8.3)	1 (2.0)	1 (1.5)	1 (1.4)
	Do you have children? (n [%])					
	No	46 (37.1)	6 (50.0)	28 (57.0)	30 (46.2)	35 (48.6)
	Yes	78 (62.9)	6 (50.0)	21 (42.9)	35 (53.8)	37 (51.4)
	Besides your partner or children, do you care for any other family member? (n [%])					
	No	95 (76.6)	10 (83.3)	38 (77.6)	52 (80.0)	56 (77.8)
	Yes	29 (23.4)	2 (16.7)	11 (22.4)	13 (20.0)	16 (22.2)
	Life Stage of the Family Member You Care For (n [%])					
	Adult	4 (13.8)	1 (50)	3 (27.3)	2 (15.4)	3 (18.7)
	Older Adult	22 (75.9)	1 (50)	7 (63.6)	10 (76.9)	12 (75)
	Preschool-aged	2 (6.9)	---	1 (9.1)	---	1 (8.3)
	School-aged	1 (3.4)	---	---	---	---
	School-aged Adolescent	---	---	---	1 (7.7)	---
	Has your household income been affected by the pandemic? (n [%])					

Occupational Characteristics	No	86 (69.4)	9 (75.0)	33 (67.3)	45 (69.2)	48 (66.7)
	Yes	38 (30.6)	3 (25.0)	16 (32.7)	20 (30.8)	24 (33.3)
	What is your academic degree? (n [%])					
	Bachelor's Degree	13 (10.5)	1 (8.3)	4 (8.2)	6 (9.2)	4 (5.6)
	Master's Degree	87 (70.2)	10 (83.3)	37 (75.5)	48 (73.8)	56 (77.8)
	Doctorate o PhD	24 (19.4)	1 (8.3)	8 (16.3)	11 (16.9)	12 (16.7)
	Contracted Weekly Hours (n [%])					
	Less than 20	3 (2.4)	1 (8.3)	2 (4.1)	2 (3.1)	1 (1.4)
	Between 20 and 29	14 (11.3)	1 (8.3)	3 (6.1)	6 (9.2)	6 (8.3)
	Between 30 and 39	12 (9.7)	---	6 (12.2)	9 (13.8)	7 (9.7)
	Between 40 and 45	95 (76.6)	10 (83.3)	38 (77.6)	48 (73.8)	58 (80.6)
	Number of Overtime Hours Worked per Week (n [%])					
	0	10 (8.1)	1 (8.3)	2 (4.1)	5 (7.7)	4 (5.6)
	Between 1 and 3	7 (5.6)	1 (8.3)	3 (6.1)	4 (6.2)	6 (8.3)
	Between 4 and 6	35 (28.2)	3 (25.0)	14 (28.6)	17 (26.2)	21 (29.2)
	Between 7 and 9	30 (24.2)	1 (8.3)	11 (22.4)	14 (21.5)	13 (18.1)
	Between 10 and 12	42 (33.9)	6 (50.0)	19 (38.8)	25 (38.5)	28 (38.9)
	Before the COVID-19 health emergency, did you teach online classes? (n [%])					
	No	77 (62.1)	10 (83.7)	29 (59.2)	39 (60.0)	46 (63.9)
	Yes	47 (37.9)	2 (16.7)	20 (40.8)	26 (40.0)	26 (36.1)
	Did you receive training from the university to teach online classes? (n [%])					
	No	13 (10.5)	1 (8.3)	7 (14.3)	8 (12.3)	10 (13.9)
	Yes	111 (89.5)	11 (91.7)	42 (85.7)	57 (87.7)	62 (86.1)
	Do you share your computer with a member of your household? (n [%])					
	No	112 (90.3)	10 (83.7)	43 (87.9)	55 (84.6)	64 (88.9)
	Yes	12 (9.7)	2 (16.7)	6 (12.2)	10 (15.4)	8 (11.1)
	With which household member do you share it?					
	Spouse	4 (33.3)	2 (100)	3 (50.0)	4 (40.0)	3 (37.5)
	Children	8 (66.7)	---	3 (50.0)	6 (60.0)	5 (62.5)
	Do you have an adequate space for virtual classes? (n [%])					
	No	25 (20.2)	4 (33.3)	16 (32.7)	17 (26.2)	16 (22.2)
	Yes	99 (79.8)	8 (66.7)	33 (67.3)	48 (73.8)	56 (77.8)
Health Characteristics (Self-Care)	Do you engage in physical activity? (n [%])					
	No	62 (50.0)	10 (83.7)	27 (55.1)	37 (56.9)	41 (56.0)
	Yes	62 (50.0)	2 (16.7)	22 (44.9)	28 (43.1)	31 (43.1)

	Number of Weekly Hours of Physical Activity (n [%])					
	1 to 3	43 (69.3)	2 (100)	16 (72.7)	19 (67.9)	22 (70.9)
	4 to 6	13 (21.0)	---	4 (18.2)	7 (25.0)	7 (22.6)
	>6	6 (9.7)	---	2 (9.1)	2 (7.1)	2 (6.5)
	Number of Times per Week You Engage in Recreational Activities (n [%])					
	Fewer than three	108 (87.1)	11 (91.7)	48 (98.0)	63 (96.9)	69 (95.8)
	Three to five	14 (11.3)	1 (8.3)	1 (2.0)	2 (3.1)	3 (4.2)
	Six to seven	2 (1.6)	---	---	---	---
	Number of Daily Sleep Hours (n [%])					
	2 to 4	2 (1.6)	---	1 (2.0)	---	1 (1.4)
	5 to 6	74 (59.7)	10 (83.7)	37 (75.5)	47 (72.3)	50 (69.4)
	7 to 8	48 (38.7)	2 (16.7)	11 (22.4)	18 (27.2)	21 (29.2)
	Are you a smoker? (n [%])					
	No	97 (78.2)	11 (91.7)	37 (75.5)	49 (75.4)	52 (72.2)
	Yes	27 (21.8)	1 (8.3)	12 (24.5)	16 (24.6)	20 (27.8)

The administration of the DASS-21 questionnaire revealed that 39.5% (n = 49) of participants exhibited symptoms of depression; 52.4% (n = 65) showed symptoms of anxiety, and 58.1% (n = 72) presented symptoms of stress (Figure 1).

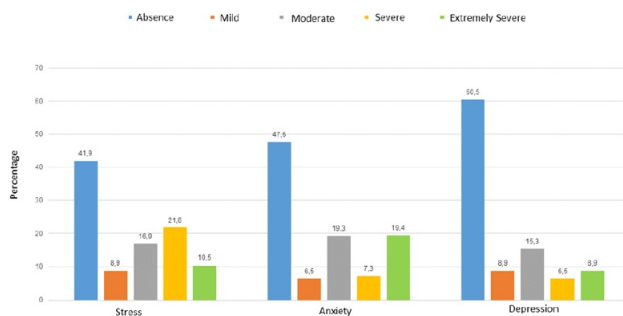


Figure 1.
Percentage Distribution of Faculty Members by Severity of Stress, Anxiety, and Depression

In addition, the administration of the MBI-HSS questionnaire showed that 9.7% ($n = 12$) of faculty members presented with burnout syndrome. A significant proportion of the sample exhibited high levels of emotional exhaustion and depersonalization, along with low levels of personal accomplishment (Figure 2).

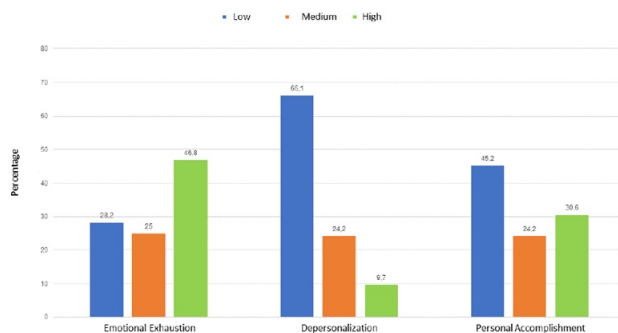


Figure 2.
Percentage Distribution of Faculty Members According to MBI-HSS Scores

Of all faculty members with depression, 20% ($n = 10$) also experienced burnout; 75% ($n = 43$) reported anxiety, and 81% ($n = 46$) reported stress. Additionally, among those with anxiety symptoms, 15.4% ($n = 10$) also presented with burnout, 66% ($n = 43$) with depression, and 89% ($n = 58$) with stress. Finally, among those who reported stress, 13.9% ($n = 10$) also experienced burnout, 64% ($n = 46$) had depression, and 81% ($n = 58$) had anxiety.

For faculty members who exhibited burnout in combination with depression, anxiety, and stress, the results across the studied variables were as follows: individuals primarily within the 35–54 age range showed the highest incidence of these mental health issues, with average rates close to 50%. Female faculty members also represented the highest proportion in all four mental health issues, with prevalence rates $\geq 75\%$. Furthermore, those with two children were the most affected, with proportions exceeding 48%.

Burnout syndrome was more common among married faculty members (58.3%) and those with adolescent children (50%), particularly those who reported assisting their children with schoolwork (83%). Depression was most frequent among faculty without children (57%) and among single individuals (51%). Anxiety was equally prevalent among both married and single faculty members (44.6% each), and also among those with adolescent children (25%). Lastly, stress was more frequent among single faculty members (41.7%) and those with adolescent children (37.8%).

With regard to occupational variables, faculty holding a master's degree showed the highest prevalence of burnout (83.3%), depression (75.5%), anxiety (73.8%), and stress (77.8%). Similarly, those with contracts for 40 to 45 hours per week showed rates above 73% in all four conditions. The same was true for those working between 10 and 12 extra hours per week, with rates exceeding 38%, and for those with no prior experience teaching online, with prevalence rates over 59%. Lastly, faculty who did not have an adequate space for teaching reported symptoms of burnout, depression, anxiety, and stress in the majority of cases, with rates over 66%.

Regarding health-related variables, faculty members who did not engage in physical activity or did so for less than three hours per week showed the highest prevalence of burnout (83.3% and 100%, respectively), depression (55.1% and 72.7%), anxiety (56.9% and 67.9%), and stress (56.9% and 70.9%). In addition, those who participated in recreational activities fewer than three times per week and those who slept

between 5 and 6 hours per night exhibited all four mental health conditions at rates above 90% and 69%, respectively.

Significant relationships were found between the MBI-HSS and DASS-21 subscales and certain variables under study, using the χ^2 test and Pearson's and Spearman's correlation coefficients. Additionally, significant differences were identified in the mean scores of the MBI-HSS and DASS-21 subscales with some of the variables under study, applying ANOVA and Student's t-test, with a significance level of $\alpha = 0.05$ (Tables 2 and 3).

Table 2.
Relationship Between Variables and Emotional Disorders

Variables	MBI-HSS			DASS-21		
	Personal Accomplishment	Emotional Exhaustion	Depersonalization	Depression	Anxiety	Stress
Age	$r_p: -0.33^{***}$	$r_p: 0.39^{***}$	$r_p: -0.33^{**}$ $r_p: 0.312^{***}$	---	$r_p: 0.54^{***}$	$r_p: 0.55^{***}$
Pandemic-related income impact	$\chi^2: 7.8^*$	---	---	---	---	---
Weekly overtime hours	---	$r_p: 0.40^*$ $r_p: 0.37^{**}$ $r_p: 0.34^{***}$	---	---	---	$r_p: 0.30^{**}$ $r_p: 0.27^{***}$
Academic degree	---	$r_s: -0.28^*$	---	---	---	---
Online teaching prior to pandemic	$\chi^2: 15.39^*$ $\chi^2: 6.1^{**}$ $\chi^2: 9.1^{***}$	---	---	$\chi^2: 12.5^*$ $\chi^2: 10.5^{**}$ $\chi^2: 13.6^{**}$	---	---
Contracted weekly hours	---	---	---	$r_p: 0.26^{**}$	---	---
Physical activity	---	$r_s: -0.34^*$	---	$r_s: -0.34^*$	---	---
Daily sleep hours	---	$r_p: -0.35^*$	---	---	---	---

$p < 0.05$ among faculty members who presented depression ($n = 49$).

** $p < 0.05$ among faculty members who presented anxiety ($n = 65$).

*** $p < 0.05$ among faculty members who presented stress ($n = 72$).

r_s : Spearman correlation coefficient.

r_p : Pearson correlation coefficient.

χ^2 : Chi-square test.

Table 3.
Differences in Sociodemographic, Occupational, and Health Characteristics According to Emotional Disorders

Variables	MBI-HSS			DASS-21		
	Personal Accomplishment	Emotional Exhaustion	Depersonalization	Depression	Anxiety	Stress
Age						
Ages 25 to 34			7.78 \pm 5.7			
Ages 35 to 44			5.26 \pm 3.5			
Ages 45 to 54			3.76 \pm 3.7			
Ages 55 to 64			0.33 \pm 0.6			
F			3.6			
p-value			0.018**			
Gender						
Female	31.3 \pm 6.7					
Male	35.3 \pm 5.4					
F	3.6					
p-value	0.061***					
Do you have children?						
No	34.1 \pm 6.5					
Yes	30.9 \pm 6.3					
F	4.24					
p-value	0.043***					
Number of Overtime Hours Worked per Week						
0		31 \pm 5.9	24.8 \pm 10.1			10.6 \pm 3.8
Between 1 and 3		25.3 \pm 7.3	23 \pm 6.8			10.7 \pm 5.31
Between 4 and 6		27.1 \pm 9.6	26.7 \pm 10.0			12.9 \pm 3.2
Between 7 and 9		28.5 \pm 7.3	27.3 \pm 7.9			11.1 \pm 4.2
Between 10 and 12		34.8 \pm 9.4	34.5 \pm 9.2			14.5 \pm 3.6
F		3.06	3.3			2.6

p-value		0,022***	0,016**			0,044**
Online Teaching Prior to the Pandemic						
No	28,1 ± 5,9			11,9 ± 4,3		
Yes	35,2 ± 6,4			7,8 ± 2,5		
F	16,1			14,9		
p-value	0,000*			0,001*		
No	30,5 ± 6,5			9,3 ± 5,7		
Yes	35,0 ± 5,9			5,8 ± 3,5		
t	2,8			-2,8		
p-value	0,006**			0,008**		
No	35,6 ± 6,1					
Yes	30,8 ± 6,3					
F	9,8					
p-value	0,003***			-		
Training for Online Teaching						
No						14,4 ± 1,6
Yes						12,5 ± 4,2
t						2,36
p-value						0,027**
Engagement in Physical Activity						
No		35,0±8,4				
Yes		28,5±9,7				
F		6,2				
p-value		0,016*				
Number of Daily Sleep Hours						
5 to 6		33,3±9,2				
7 to 8		27,0±9,2				
F		3,8				
p-value	-	0,055*	-	-	-	-

$p < 0.05$ and $p < 0.10$ among faculty members who presented depression ($n = 49$).

** $p < 0.05$ among faculty members who presented anxiety ($n = 65$).

*** $p < 0.05$ and $p < 0.10$ among faculty members who presented stress ($n = 72$).

F: Fisher's F statistic.

t:calculated using Student's *t*-test.

p-value: significance level.

Discussion

The purpose of this study was to analyze the sociodemographic, occupational, and health-related characteristics of faculty members at a private Chilean university who exhibited burnout and symptoms of stress, anxiety, and depression during the COVID-19 pandemic. The prevalence rates of the various mental health issues in the sample analyzed were higher than those reported by Ozamiz-Etxebarria et al. (33), who found 37.2% for anxiety, 19.5% for depression, and 34.5% for stress. These results indicate that the academic staff faced a challenging context for carrying out their professional duties, in the midst of an

unprecedented global pandemic that required rapid adaptation in all areas of life, marked by a high degree of uncertainty (1,2). In addition, academic activities in Chile were not suspended but rather transitioned from in-person to virtual formats.

Regarding sociodemographic variables, female faculty members were more affected across all four mental health dimensions: 1) burnout (women: 75%, men: 25%); 2) depressive symptoms (women: 77.6%, men: 22.4%); 3) anxiety (women: 76.9%, men: 23.1%); and 4) stress (women: 76.4%, men: 23.6%). These findings are consistent with those reported by other authors (16, 20, 34). This trend may be attributed to the intensification of the “double burden” during the pandemic due to telework, social distancing measures, and the need to support children's online learning (35). However, it is essential to consider the role of women within each cultural context. In Chile, domestic and family caregiving responsibilities traditionally fall on women, and the teaching profession is predominantly female (20). These factors should be taken into account when designing interventions, as incorporating a gender perspective is necessary to enhance their effectiveness (36).

With respect to parental status, participants with children had lower average personal accomplishment scores $\bar{x}_{no} = 34,1$; $\bar{x}_{yes} = 30,9$; $p = 0,043$). This suggests that the exacerbation of the double burden due to telework and online schooling negatively impacted teachers' self-assessment of their professional performance. This was noted by Andrada and Mateus (37), who reported that female teachers not only had to cope with their professional workload but also with the demands of household responsibilities. As a result, they had limited time to address the new challenges posed by the pandemic.

While previous research in Latin America has documented that the age group most affected by emotional disorders during the pandemic ranged from 44 to 54 years (19, 20), in the present study, the most affected group was faculty aged 35 to 44 years. This finding is

consistent with a Brazilian study on university faculty (18), suggesting a specific vulnerability in this age range. This may be related to their life and career stage, as many professionals in this group face significant professional demands—such as academic consolidation, administrative responsibilities, and publication pressure—simultaneously with personal and family responsibilities, including parenting or caregiving for older relatives. This combination may increase chronic stress exposure and contribute to the development of burnout, anxiety, and depression symptoms.

Marital status did not show any statistically significant associations or differences across the subscale scores. This contrasts with findings from other studies reporting higher anxiety scores among married teachers (38), while other authors have found that stress levels are lower in married teachers (13).

In terms of occupational variables, faculty members with more than 30 contracted weekly hours (87.6%) presented symptoms of anxiety. Additionally, the number of contracted hours was significantly associated with anxiety ($r_p = 0.26$; $p = 0.040$), a result that suggests the emotional and workload-related strain experienced by academic staff during the public health emergency.

Regarding workload overload, as reflected by overtime hours, this was significantly associated with stress and emotional exhaustion, consistent with findings from other studies. These studies highlight that the lack of time for rest, coupled with the blurring of boundaries between home and work, contributes to emotional fatigue and chronic exhaustion among teachers (3, 16). It is also worth noting that during the pandemic, the volume of indirect teaching hours increased due to the need to adapt educational materials and assessment tools for virtual learning, leading to extended workdays during hours not typically dedicated to such tasks.

These results are consistent with the literature, which has shown that the intensification of academic work during crisis contexts—such as the rapid shift to remote teaching, increased administrative responsibilities, and

pressure to maintain research productivity—significantly contributed to emotional distress. A heavier workload not only demands more time but also entails greater cognitive and emotional effort, particularly in a context marked by public health uncertainty, technological adjustments, and personal concerns (39).

Additionally, among faculty members with depression, academic degree was significantly associated with emotional exhaustion ($r_s = -0.28$; $p = 0.044$), as also reported by other studies (16). This likely reflects the complex environment experienced during the pandemic, characterized by threats to personal health, a constant flow of negative information in the media, strict adherence to public health measures, and the need to continue teaching without compromising quality (8, 9). In the university studied, faculty members with a master's degree had more classroom teaching hours compared to those with doctoral degrees, who dedicated more time to research. As a result, the latter group performed a greater variety of tasks, which were less routine and involved less direct student contact.

Furthermore, among faculty members with stress, anxiety, and depression, lack of prior experience in teaching online was significantly associated with lower scores on the MBI-HSS subscale of personal accomplishment. This is consistent with what the dimension measures: self-perceived performance. The findings may be explained by the critical experience faculty underwent during their process of adjustment and adaptation to virtual environments—an experience marked by high levels of stress, complexity, and rapid change (40).

Among faculty with stress and anxiety, significant differences were also observed between those who did or did not receive training for emergency remote teaching. This aligns with previous research highlighting the abrupt nature of the transition to virtual modalities, which in many cases occurred without sufficient prior preparation and resulted in greater stress among educators (41).

Regarding health-related variables, among faculty members with depression, an association

was found with the absence of physical activity and emotional exhaustion, but not with stress symptoms. This latter finding contrasts with a study conducted among academics in Bulgaria, which reported a negative relationship between perceived stress and the frequency of physical activity ($p = 0.017$) (13). It is important to note that outdoor and gym-based activities were restricted during periods of lockdown and social distancing measures (42), limiting opportunities for regular exercise—even among those who were previously active. This may have affected faculty members unevenly, depending on factors such as motivation levels, access to private spaces, and socioemotional support, which can either mitigate or exacerbate emotional disorders.

Finally, among faculty members experiencing depression, significant associations and differences were found in the scores of the emotional exhaustion subscale. This finding is consistent with studies on Mexican educators, in which a significant association was observed between depression and emotional exhaustion (43). This link suggests that emotional exhaustion functions as a central component of the burnout syndrome and may facilitate or coexist with depressive symptomatology. The intensity of this interaction may be mediated by factors such as perceived work efficacy, institutional support, and work-life balance.

Some authors emphasize two key aspects concerning burnout in university faculty: prevention and intervention. Regarding prevention, they highlight the importance of a deeper understanding of emotional demands and their impact on students, as well as the need to expand knowledge about protective factors to mitigate burnout. With respect to intervention, the lack of targeted programs is attributed to the limited research on the phenomenon and institutional disinterest. Moreover, the role of public policies is considered crucial in regulating academic work, particularly in the context of telework, where burnout risks may intensify (44).

In summary, studies have confirmed the presence of burnout syndrome among university faculty, with personal accomplishment being the

most affected dimension. This is significant, as teaching should ideally be a rewarding activity aimed at helping others achieve their goals. The high demands of the labor market and the responsibilities placed on universities have increased pressure within higher education. Contributing factors such as mental overload, isolation, and insufficient digital competencies also appear to influence the low scores in personal accomplishment. The inclusion of assessment tools that specifically explore this dimension is recommended, as well as considering variables such as gender and age in future research. Furthermore, the evolving landscape of education and the impact of information and communication technologies (ICT) have increased the psychological demands on teachers and transformed the very nature of the teaching profession (45).

Given these findings, this study reinforces the urgent need for comprehensive interventions that not only address workload but also promote self-care, accessible physical activity, and emotional well-being among university faculty—particularly in the context of prolonged crises like the pandemic. This scenario highlights the importance of higher education institutions recognizing the psychosocial risks associated with excessive workloads, especially in emergency contexts. Designing work-life balance policies with a gender-sensitive approach, setting reasonable academic workload limits, and strengthening emotional support networks could contribute significantly to preventing mental health issues such as anxiety, stress, depression, and burnout within the academic workforce.

Conclusions

The prevalence of the mental health issues examined was high, yet consistent with findings from international studies. Stress and anxiety were the most frequently reported conditions. Among sociodemographic factors, age and gender were significantly associated with the presence of the emotional disorders investigated. Regarding occupational factors, the number of

hours worked and the lack of prior experience in online teaching were associated with low levels of personal accomplishment and higher rates of depression.

In terms of health-related variables, sleep duration and physical activity were also linked to emotional exhaustion and depression. Even before the pandemic, the teaching profession was recognized as a highly demanding and stressful occupation. The public health emergency forced faculty members to face complex situations in both personal and professional spheres, exposing underlying mental health challenges that must be addressed to protect the well-being of both faculty and students. Therefore, there is a pressing need to strengthen self-care strategies, social support, and institutional interventions within higher education settings.

Study Limitations

The findings of this study are applicable only to the sample analyzed, as it was obtained through non-probability, convenience sampling. Additionally, the study included only full-time faculty members, due to limited access to information on adjunct faculty hired on a weekly basis, which prevented an understanding of the situation faced by that group.

Furthermore, the voluntary participation of 124 out of a total of 228 potential respondents may have introduced a self-selection bias. Since participants were not randomly selected, but instead chose to take part in the study, the sample may not be representative of the broader faculty population. This may have led to overestimation or underestimation of the prevalence of emotional disorders, thereby limiting the generalizability of the findings.

Given the institutional setting of the study, some faculty members may have opted not to participate due to concerns about the confidentiality and use of the collected data. This could have biased the sample toward individuals who felt more comfortable sharing their personal and professional experiences.

Moreover, as a cross-sectional study, the results reflect the specific point in time at which data were collected and do not necessarily capture the broader experience of faculty members throughout the entire pandemic period. Finally, due to the absence of pre-pandemic clinical histories, it was not possible to determine whether the mental health conditions assessed in this study were pre-existing.

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