

Research article

Exhaustion and burnout in the healthcare system in Greece: A cross-sectional study among internists during the COVID-19 lockdown

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ABSTRACT

The COVID-19 pandemic has rapidly changed everyday life around the world. The situation created by the COVID-19 pandemic has been shown to be associated with severe mental health problems in frontline medical and nursing staff. The aim of this study was to investigate exhaustion, disengagement, secondary traumatic stress, compassion satisfaction, burnout, as well as depression, anxiety and stress among internists in Greece, during the second lockdown period. Internists were approached through the Internal Medicine Society of Greece and a total of 117 participated in the study (response rate: 15.3%). The participants responded through a Google form on the Depression, Anxiety and Stress Scale-21, the Oldenburg Burnout Inventory (OLBI) and the Professional Quality of Life Scale version 5 (ProQOL-5). Exhaustion was found in the majority of the participants (88%), 65.8% met the criteria for at least moderate levels of compassion satisfaction and 71.8% presented moderate levels of burnout. Furthermore, about half of the participants met the criteria for moderate to extremely severe levels of depression, anxiety and stress. Finally, regression analyses showed that depression was associated with both the OLBI and ProQOL-5 scales. The majority of the internists, during the lockdown period in Greece, were evaluated as "exhausted", with high rates of negative psychological symptoms. The present study, despite the limitations, highlights the impact of the COVID-19 pandemic on internists, which triggered a shift in attention onto the treatment, and especially the prevention, of stressful situations for health professionals.

KEYWORDS: COVID-19 pandemic, exhaustion, burnout, depression, internists, Greece.

Introduction

The Coronavirus disease of 2019 (COVID-19) is an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The virus and disease were first identified in the Chinese city of Wuhan in late 2019 and became known to the World

Health Organization on December 31, 2019. Since then, it has spread around the world and has developed into a pandemic.¹ The ever-increasing number of cases, the impending risk of infection as well as the excessive burden on health care systems are important factors of an intense psychological burden and are associated with

increased manifestation of anxiety and depression, especially among Health Care Workers (HCWs).² COVID-19 has been shown to be associated with severe mental health problems in patients as well as frontline medical and nursing staff, who had direct contact with infected patients and expressed greater mental distress, more stigma, and more concerns about their families' infection.³ In addition, symptoms of post-traumatic stress were reported in Italy,⁴ where the COVID-19 pandemic has had a stronger impact on the mental health of physicians.⁵

On February 26, 2020, the first wave of the epidemic began in Greece, along with the first implementation of strict measures for the prevention of infection and the early imposition of social distancing. During this period, emotional disorders and high levels of symptoms of depression and anxiety were similar or higher compared to the period of the 2009 financial crisis.⁶ Amidst COVID-19, burnout (BO) has a high prevalence in HCWs around the world as it appears as a response to stressful situations in the course of the development of a work activity.⁷ BO is a psychological syndrome that may emerge when employees are exposed to a stressful working environment, with high job demands and low resources or low gratification.⁸

Despite the fact that Greece took strict social prevention measures early on, the Greek public health system faced serious challenges and showed significant shortages of equipment, staff and hospital facilities from the beginning of the COVID-19 pandemic in the country.⁹ Greek clinicians were faced with unprecedented, serious challenges that they had to respond to immediately and effectively. Within a limited time and with minimal resources, they had to act in a timely manner and make decisions about the diagnoses, the sorting and isolation of cases with suspected infection, the treatment and maintenance of patients in life, as well as make immediate decisions about closing departments and preparing surgeries, with limited resources and beds in intensive care. These procedures are familiar in many countries and concern the daily difficulties and mental, spiritual and physical damage faced by frontline HCWs, as evidenced by the literature.^{1,9,10}

During the COVID-19 pandemic, frontline medical correspondents worked continuously to meet the high demands of healthcare, while higher levels of mental disorders have been reported among them.¹¹ At a time when public health systems are struggling and overburdened, trying to meet the requirements of COVID-19, physically and mentally healthy healthcare professionals are needed to provide reliable and effective health care services.¹² The aim of this study was to investigate

exhaustion, disengagement, secondary traumatic stress, compassion satisfaction, burnout, as well as depression, anxiety and stress among internists in Greece, during the second lockdown period.

Material and Method

Sample

Internists were approached through the Internal Medicine Society of Greece. A Google form link was emailed to their accounts and before participating in the study, all participants electronically gave their consent. The research was open from 21 April 2021 until 13 May 2021, during the second lockdown in Greece. During this period, the HCWs were not allowed to take any normal licenses.¹³ Of the total number of internists who were approached (n=764), eventually 117 participated in the study (response rate: 15.3%). To avoid double entries, only one questionnaire was accepted per specific IP address. The research structure did not allow any tracking of the participants' identity and participants were free to discontinue at any time. The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Scientific Council of the "AHEPA" University Hospital, Aristotle University of Thessaloniki, under approval number 15043, dated April 21, 2021.

Data collection

Participants' socio-demographic characteristics (age, gender, marital status, annual income, etc.) were collected. The Depression, Anxiety and Stress Scale-21 was then administered to explore levels of depression, anxiety, and stress. Following that, the Oldenburg Burnout Inventory was used to identify professional BO, and finally, the Professional Quality of Life Scale version 5 was used to identify the negative consequences of helping others and the positive feelings derived from the compassionate helping of working with people who have experienced extremely stressful events. The questionnaires used Likert scale and multiple-choice question answers.

Depression, Anxiety and Stress Scale-21 (DASS-21)

This is a 21-item self-report questionnaire scored on a 4-point Likert scale ranging from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). DASS-21 is designed to assess depression, anxiety, and stress with a three-factor structure of high validity among the three dimensions. Each of the three scales contains 7-items and higher scores indicate more frequent symptomatology.¹⁴ DASS-21 subscales scores were also recoded as "normal", "mild", "moderate", "severe" and "extremely severe" accordingly.¹⁵ The Greek

translation of the DASS-21 is both reliable and valid.¹⁶ In this study, the DASS-42 Cronbach alpha coefficients were ($\alpha_{\text{total}} = .914$; $\alpha_{\text{depression}} = .809$; $\alpha_{\text{anxiety}} = .771$; $\alpha_{\text{stress}} = .888$).

The Oldenburg Burnout Inventory (OLBI)

The OLBI is a 16-item self-report questionnaire scored on a 4-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree). The OLBI is designed to assess disengagement and exhaustion (physical, spiritual and emotional). Each of the two scales contains 8-items. Eight items need to be reversed and recoded as follows: 1 as 4, 2 as 3, 3 as 2 and 4 as 1. We considered participants to be at high risk of BO if they met cutoff scores of ≥ 2.25 for exhaustion and ≥ 2.10 for disengagement. These cut off scores have been suggested in previous studies¹⁷ and correlate with physical symptoms.¹⁸ The Greek translation of the OLBI is both reliable and valid.¹⁹ In this study, the OLBI Cronbach alpha coefficients were ($\alpha_{\text{total}} = .825$; $\alpha_{\text{disengagement}} = .762$; $\alpha_{\text{exhaustion}} = .785$).

The Professional Quality of Life Scale version 5 (ProQOL-5)

The ProQOL-5 is a 30-item self-report questionnaire scored on a 5-point Likert scale ranging from 1 (never) to 5 (very often), with higher scores indicating higher levels on each subscale. The ProQOL-5 incorporates two aspects, the positive "Compassion Satisfaction" (CS) and the negative "Compassion Fatigue" (CF) which contains the BO scale and Secondary Traumatic Stress (STS).²⁰ The ProQOL-5 consists of three subscales with 10 items each.²¹ The final score of each subscale was recoded as "Low", "Moderate" and "High" accordingly.²¹ The ProQOL-5 has been adapted for Greece with good reliability and construct validity.²² In this study, the ProQOL-5 was used with permission and the Cronbach alpha coefficients were ($\alpha_{\text{CF}} = .892$; $\alpha_{\text{BO}} = .758$; $\alpha_{\text{STS}} = .810$).

Statistical analyses

Statistical analyses were performed using the statistical package SPSS, version 22 (SPSS Inc., Chicago, IL). To compare the means of variables with two categories, the independent samples t-test with a 0.05 two-sided significance level and chi-square tests or the Fisher exact test with Monte-Carlo correction for categorical variables were used. Pearson correlation coefficients were calculated to assess relationships between the OLBI and ProQOL-5 scales.

In addition, multivariate linear regression analyses were conducted to examine the association between a number of predictors: gender (male/female); age; marital status (single/married); vaccinated against the SARS-COV-2 (yes/no); SARS-CoV-2 virus protection

is adequate at your workplace (yes/no); Depression-DASS-21; Anxiety-DASS-21 and Stress-DASS-21, and the continuous outcome variables of disengagement-OLBI; exhaustion-OLBI; CS-ProQOL-5; STS-ProQOL-5 and BO-ProQOL-5. Finally, we used bootstrapping (a sample of 1500 bootstraps) and 95% confidence intervals. Estimated associations were described as β -coefficients with 95% CIs.

Results

Socio-demographic characteristics

The majority of participants (58.1%) were females and most (81%) were under 50 years old. Half of the participants had children with the majority of them (67.7%) having at least two. In addition, most of the participants (80.3%) had been in contact with patients with COVID-19 ($p = 0.031$). There was a statistically significant difference between the internists that were vaccinated (82.9%) and those that were not vaccinated ($p = 0.045$). Finally, the majority of participants (64.9%) work in the city of Thessaloniki ($p = 0.027$) with 45.2% of the sample working at the University General Hospital. The gender differences between socio-demographics, OLBI, DASS-21 and ProQOL-5 questionnaires outcome variables are presented in table 1. Moreover, we regrouped the participants into three different groups according to OLBI scores. First, the disengagement group, with mean disengagement score ≥ 2.10 ; then the exhaustion group, with mean exhaustion score ≥ 2.25 , and finally the BO group, when both the disengagement and exhaustion score met the threshold inclusion criteria according to the literature.²³ Results are presented in figure 1. In addition, figure 2 presents the recoding (low, moderate, high) of the final score of each subscale BO, STS and CS of the ProQOL-5 questionnaire. Furthermore, according to the DASS-21 questionnaire, about half of the participants met the criteria for moderate to extremely severe levels of psychometrically measured depression, anxiety and stress symptomatology. The results of the recoded levels of the DASS-21 questionnaire: normal, mild, moderate, severe and extremely severe, are presented in figure 3. Finally, the relationship between the OLBI and ProQOL-5 scales is presented in table 2. It was found that according to Pearson's bivariate correlations all scales were statistically significantly associated ($p < 0.01$), apart from the STS-ProQOL-5 and Disengagement-OLB.

Multiple linear regression models of the OLBI and ProQOL-5 scales

A Multiple linear regression models were performed to highlight the role of disengagement, exhaustion (OLBI), CS, STS and BO (ProQOL-5), with the socio-demographic and

Table 1. Socio-demographic characteristic.

Variables		Males (N=49) Mean±SD N (%)	Females (N=68) Mean±SD N (%)	x ² or t	p ^a
Age (years)		41.5±11.0	39.2±9.2	1.233	0.22
Age group (years)	≤40	29 (59.2)	39 (57.4)	0.039	0.843
	>40	20 (40.8)	29 (42.6)		
Family status	Single	19 (38.8)	37 (54.4)	2.790	0.095
	Married	30 (61.2)	31 (45.6)		
Children	None	22 (44.9)	36 (52.9)	0.737	0.455
	Yes	27 (55.1)	32 (47.1)		
Vaccinated against SARS-CoV-2	Yes	45 (91.8)	52 (76.5)	4.745	0.045
	No	4 (8.2)	16 (23.5)		
SARS-CoV-2 virus protection is adequate	Yes	33 (67.3)	42 (61.8)	0.386	0.535
	No	16 (32.7)	26 (38.2)		
Contact with COVID-19 patients	Yes	41 (83.7)	53 (77.9)	6.091	0.031
	No	3 (6.1)	0 (0)		
	Probably	5 (10.2)	15 (22.1)		
City of employment	Thessaloniki	25 (51.0)	51 (75.0)	7.181	0.027
	Athens	4 (8.2)	3 (4.4)		
	Others	20 (40.8)	14 (20.6)		
Place of work	Public Hospital	26 (53.1)	21 (30.9)	6.975	0.062
	University General Hospital	16 (32.7)	37 (54.4)		
	Private Clinic	6 (12.2)	7 (10.3)		
	Other	1 (2.0)	3 (4.4)		
Depression DASS-21		5.0±4.0	5.0±3.7	-0.061	0.952
Anxiety DASS-21		3.4±3.3	3.5±3.1	-0.113	0.91
Stress DASS-21		8.4±4.5	7.7±4.7	0.909	0.39
Disengagement OLBI		2.3±0.5	2.2±0.5	1.088	0.279
Exhaustion OLBI		2.8±0.4	2.8±0.5	-0.181	0.857
Compassion satisfaction ProQOL-5		38.7±7.0	37.7±6.2	0.864	0.39
Burnout ProQOL-5		25.8±5.6	25.4±5.1	0.399	0.690
Secondary traumatic stress ProQOL-5		24.1±7.5	24.8±4.7	-0.634	0.527

^aP-values obtained by t-test for two independent samples, and x² test or Fisher exact test with Monte-Carlo correction

the three subscales of DASS-21: depression, anxiety and stress; the potential factors being significant was $p \leq 0.05$.

According to our sample, for each 1-year (age) of increment, disengagement decreases by -0.097 points (95%CI: $-0.18, -0.00, p=0.043$) respectively. For each 1-point of increment on the depression scale, disengagement respectively increases by 0.55 points (95%CI: $0.18, 0.87, p=0.005$). Also, for each 1-point of increment on the depression scale, exhaustion respectively increases by 0.318 points (95%CI: $0.13, 0.5, p=0.001$), CS decreases by -0.931 points (95%CI: $-1.35, -0.49, p=0.001$), STS increases by 0.41 points (95%CI: $0.06, 0.76, p=0.023$)

and BO respectively increases by 0.955 points (95%CI: $0.68, 1.22, p=0.001$). In addition, for each 1-point of increment on the anxiety scale, STS respectively increases by 0.609 points (95%CI: $0.13, 1.08, p=0.015$). Finally, for each 1-point of increment on the stress scale, exhaustion respectively increases by 0.316 points (95%CI: $0.15, 0.5, p=0.001$). Results are presented in table 3.

Discussion

The COVID-19 pandemic has seen an increased demand on frontline physicians, such as internists, who need to treat large numbers of patients in an unprec-

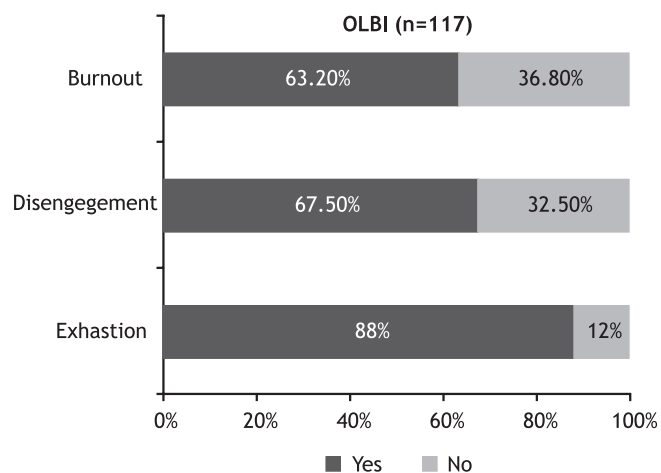


Figure 1. Sample’s scores on the Oldenburg Burnout Inventory (OLBI).

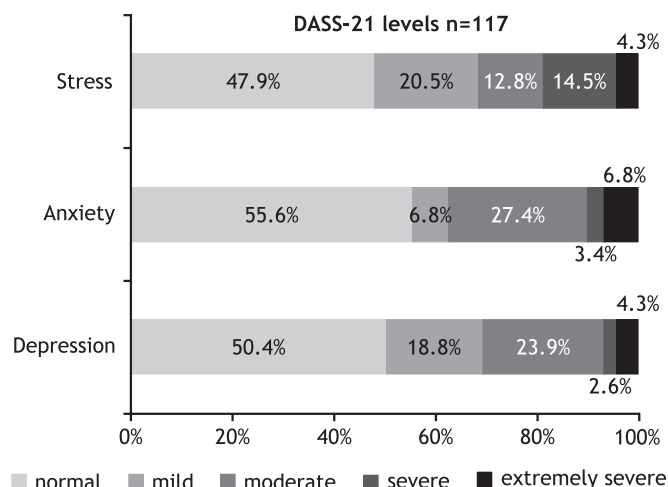


Figure 3. Sample’s scores on the Depression, Anxiety and Stress Scale – 21, DASS 21.

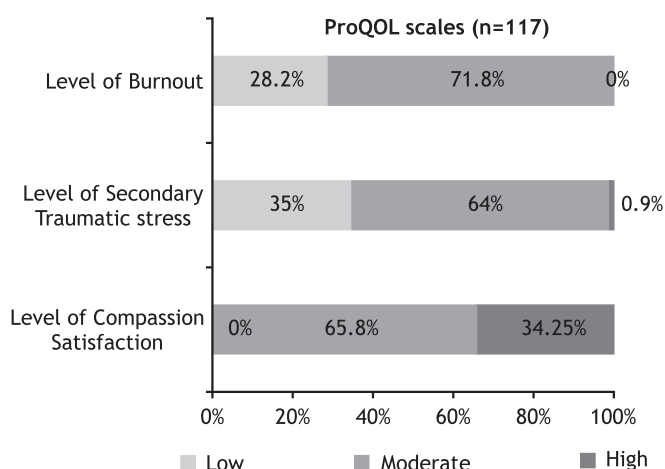


Figure 2. Sample’s scores on the Professional Quality of Life Scale version 5 (ProQOL-5).

edented pandemic crisis,²⁴ causing an unprecedented strain on HCWs.²⁵ During the COVID-19 pandemic, infection rates increased, hospitals were overloaded, with unavailability of hospital beds and a lack of inadequate personal protective equipment, resulting in further ex-

acerbation of the already vulnerable mental health of HCWs.²⁶ In this study we investigated the exhaustion, disengagement, STS, CS and BO, as well as the psychological symptoms among internists, frontline personnel facing COVID-19, in Greece.

Occupational BO was firstly mentioned in the literature in the late 1960s.²⁷ Since then, uncoordinated research has led to a multi-dimensional construct of BO¹⁶ consisting of the three main components: emotional exhaustion, depersonalization, and decreased personal accomplishment, as a result of constant and chronic occupational stress.²⁸ The OLBI evaluated BO in two dimensions: exhaustion and disengagement from work. On the one hand, exhaustion is defined as a consequence of intense physical, emotional and cognitive strain, resulting as a long-term consequence of prolonged exposure to certain job demands.²⁹ On the other hand, disengagement refers to distancing oneself from one’s work in general, work content (e.g., uninteresting, no longer challenging) and object of work. The disengagement dimension concerns the relationship between employees and their jobs, particularly with respect to identification

Table 2. Pearson correlations between Oldenburg Burnout Inventory (OLBI) and the Professional Quality of Life Scale version 5 (ProQOL-5) subscales.

Variables	1	2	3	4	5
1. Disengagement OLBI	1.00				
2. Exhaustion OLBI	0.43**	1.00			
3. Compassion satisfaction ProQOL-5	-0.57**	-0.38**	1.00		
4. Secondary traumatic stress ProQOL-5	-0.00	0.38**	-0.19*	1.00	
5. Burnout ProQOL-5	0.55**	0.68**	-0.65**	0.52**	1.00

*p<0.05, ** p<.001

Table 3. Multiple linear regression models predicting the scores on the Oldenburg Burnout Inventory (OLBI) and the Professional Quality of Life Scale version 5 (ProQOL-5) (n=1117).

Covariates	Disengagement OLBI†			Exhaustion OLBI†			Compassion satisfaction ProQOL-5†			Secondary traumatic stress ProQOL-5†			Burnout ProQOL-5†		
	b (95% CIs)	SE	p	b (95% CIs)	SE	p	b (95% CIs)	SE	p	b (95% CIs)	SE	p	b (95% CIs)	SE	p
Constant	19.919 (16.9, 23.5)	1.841	0.001**	17.536 (14.4, 20.8)	1.638	0.001**	38.318 (32.6, 44)	2.886	0.001**	18.366 (13.5, 23.2)	2.494	0.001**	21.071 (17.5, 24.6)	1.81	0.001**
Gender	-1.165 (-2.6, 0.2)	0.737	0.124	0.165 (-1.0, 1.3)	0.795	0.795	-0.874 (-3.0, 1.3)	1.128	0.436	1.566 (-0.5, 3.4)	1.014	0.138	-0.614 (-2.0, 0.8)	0.722	0.395
Age (years)	-0.097 (-0.1, -0.0)	0.045	0.043*	0.021 (-0.0, 0.1)	0.042	0.635	0.087 (-0.0, 0.2)	0.065	0.182	-0.005 (-0.1, 0.1)	0.062	0.936	-0.001 (-0.0, 0.0)	0.04	0.975
Marital status	0.335 (-1.6, 2.3)	1.0	0.753	-0.749 (-2.4, 0.9)	0.893	0.414	1.111 (-1.5, 3.7)	1.343	0.404	1.775 (-0.6, 4.1)	1.215	0.154	-1.129 (-3.0, 0.6)	0.949	0.233
Vaccinated against SARS-CoV-2	0.638 (-1.5, 2.3)	1.05	0.532	0.464 (-1.0, 1.9)	0.793	0.551	1.626 (-0.7, 3.0)	1.164	0.153	-2.584 (-5.5, 0.5)	1.525	0.092	0.339 (-1.3, 1.9)	0.834	0.68
SARS-CoV-2 virus protection is adequate at your workplace	0.785 (-0.7, 2.4)	0.798	0.337	1.057 (-0.3, 2.3)	0.689	0.127	0.073 (-2.1, 2.3)	1.129	0.953	-1.826 (-4.2, 0.4)	1.18	0.127	0.287 (-1.1, 1.6)	0.708	0.984
Depression	0.55 (0.1, 0.8)	0.176	0.005**	0.318 (0.1, 0.5)	0.095	0.001**	-0.931 (-1.3, -0.4)	0.214	0.001**	0.41 (0.0, 0.7)	0.181	0.023*	0.955 (0.6, 1.2)	0.136	0.001**
Anxiety	-0.22 (-0.5, 0.0)	0.156	0.145	-0.055 (-0.2, 0.1)	0.107	0.58	0.197 (-0.2, 0.6)	0.224	0.359	0.609 (0.1, 1.0)	0.249	0.015*	-0.053 (-0.2, 0.1)	0.124	0.665
Stress	0.075 (-0.1, 0.3)	0.133	0.584	0.316 (0.1, 0.5)	0.084	0.001**	-0.003 (-0.3, 0.3)	0.171	0.987	0.181 (-0.1, 0.5)	0.166	0.271	0.097 (-0.1, 0.3)	0.109	0.367
R ²	0.322			0.432			0.326			0.346			0.586		
F	6.410**			10.276**			6.531**			7.130**			19.125**		

*p<0.05, ** p<.001, †1500 bootstrap samples

with work and willingness to continue in the same occupation.³⁰ BO, according to the OLBI, occurs when both exhaustion and disengagement pass the cutoff mean scores.³¹ Our survey results present a high proportion of internists (88%) who met the criteria for exhaustion and a lower (67.5%) who met the criteria for disengagement. According to the OLBI, the majority of the participants (63.2%) met the criteria for BO. Exhaustion rates in our study appeared to be slightly higher, but in the same line as, the research of Tan et al.³² Chernoff et al.³³ and Sheehan et al,³⁴ conducted among frontline HCWs. Disengagement rates in our research were lower, compared to the study by Tan et al³² and Chernoff et al³³ Our research results regarding BO appeared to be in line with Pappa et al research³⁵ which was conducted among frontline HCWs in Greece. We believe that the reduced disengagement rates significantly restrained the BO rates among our sample. However, exhaustion seems to be the most obvious manifestation of BO, while overtime was also related with higher rates of the OLBI exhaustion dimension.³¹

Regarding the ProQOL-5 scale, the majority of the responders reported a moderate level (65.8%) of CS, while the rest (34.25%) reported a high level. CS occurs in the form of the helper's altruistic behaviors and results from a transactional dynamic understood as the positive effects or "payments" one gains as a result of care giving, despite the 'cost' of helping others.³⁶ This construct was identified as a protective factor against BO and STS.³⁷ The BO scale of the ProQOL-5 is a dimension of the CF which appeared to be mainly at a moderate level (71.8%) in our sample. The BO scale of the ProQOL-5 is associated with feelings of hopelessness and difficulties in dealing with work or in doing the job effectively, as well as frustration, exhaustion, anger and depression, while is also highly associated with STS.³⁸ In addition, the BO scale of the ProQOL-5 can reflect the feeling that your efforts make no difference, or they can be associated with a very high workload or a non-supportive work environment.^{20,21} Finally, STS, which is the second component of CF, is related to a negative feeling driven by fear and work-related trauma and is presented mainly at a moderate level in our sample (64.8%).²⁰ Similar results regarding STS were found by Kalaitzaki et al research,³⁹ which was conducted among HCWs in Greece during the same research period. On the one hand, CS among frontline doctors during COVID-19 presented higher rates in our research than Dosil et al⁴⁰ and Ortega-Galán et al research.⁴¹ On the other hand, BO and STS, presented lower rates in our research than Dosil et al⁴⁰ and Ortega-Galán et al research.⁴¹

A higher prevalence of mental health problems, such as anxiety, depression, and so on, was presented among

the frontline workers in comparison with the non-frontline HCWs.³⁶ In this survey we assessed psychological symptoms with the DASS-21 questionnaire. Initially, the depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest, anhedonia and inertia.¹⁵ Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxiety effects. Finally, the stress scale is sensitive to levels of chronic nonspecific arousal and assesses relaxation difficulty, nervous arousal, agitation, irritability, over-reaction and impatience.^{14,15} It is concerning for the mental health of the participants that about a third (30.8%) exhibited moderate to extremely severe depression symptoms, while 37.6% and 31.6% reported moderate to extremely severe anxiety and stress levels respectively. The results of our research show at least twice as high scores regarding moderate to extremely severe depression, anxiety and stress among doctors, in relation to an equivalent study that was conducted among HCWs in Australia⁴² and Malaysia.⁴³ In addition, our results regarding BO and anxiety are in line with Cheristanidis et al research,⁴⁴ which was conducted among primary HCWs in Greece. However, in line with the literature,⁴⁵ the results of the multivariate linear regression showed that depression significantly associated with exhaustion and disengagement of the OLBI as well as with CS, STS and the BO scale of ProQOL-5. Depression in our research was presented as a key element of BO, such as exhaustion, frustration and anger, according to the literature.¹⁸

The higher prevalence of depression, anxiety, stress and post-traumatic stress is well established among frontline HCWs in comparison with second-line HCWs.^{3,11,26,30} Nevertheless, mixed results are presented between frontline nurses and physicians, regarding the above psychological symptoms.^{12,25,40} During the COVID-19 pandemic, dysfunctional coping strategies among frontline HCWs contributed to a higher risk of STS⁴⁶ and negative psychological symptoms.²⁸ Individual focused intervention, as well as organisational interventions proved to be beneficial for HCWs. Initially, according to the literature, organizations can provide adequate nutrition, planning shorter rotations and schedules with sufficient rest for the medical staff. Furthermore, psychoeducation training in coping skills and self-care activities, trauma-focused psychological support, mindfulness practices, social and peer support as well as the increase of communication skills, are important individual focused interventions that can minimize the risk of negative psychological effects.^{8,12,28,30,31}

The first limitation of this study is the limited number of participants, a fact that was not under our control. In addition, the cross-sectional design cannot provide ev-

idence of causality and the self-report questionnaires may be influenced by recall and selection biases.

Conclusion

The findings in this study highlight that the majority of the internists qualified as exhausted during the COVID-19 pandemic. In addition, high levels of moderate to extremely severe depression, anxiety and stress

have been reported among the participants of the study. In contrast, CS levels present as high and counter balance the STS and BO scores. Nevertheless, the majority of the internists qualified as “Burnout” in both of the questionnaires used; thus, further attention should be focused on the treatment, and especially the prevention, of stressful situations for HCWs. Finally, a reminder to readers is that the uses of stress, anxiety, and depression meanings is psychometric not clinical.

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Ερευνητική εργασία

Εξάντληση και εξουθένωση στο σύστημα υγειονομικής περίθαλψης στην Ελλάδα: Μια συγχρονική μελέτη ανάμεσα σε παθολόγους κατά τη διάρκεια της απαγόρευσης κυκλοφορίας λόγω COVID-19

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ΠΕΡΙΛΗΨΗ

Η πανδημία του COVID-19 άλλαξε ραγδαία την καθημερινότητα σε όλο τον κόσμο. Η κατάσταση που δημιουργήθηκε από την πανδημία COVID-19 έχει αποδειχθεί ότι σχετίζεται με σοβαρά προβλήματα ψυχικής υγείας, τόσο στο ιατρικό, όσο και στο νοσηλευτικό προσωπικό της πρώτης γραμμής. Σκοπός αυτής της μελέτης είναι να διερευνήσει την εξάντληση, την αποδέσμευση, το δευτερογενές τραυματικό στρες, την ικανοποίηση από τη συμπόνια, την εξουθένωση, καθώς και την κατάθλιψη το άγχος και το στρες, μεταξύ των παθολόγων στην Ελλάδα, κατά την περίοδο της δεύτερης απαγόρευσης κυκλοφορίας. Οι παθολόγοι προσεγγίστηκαν μέσω της Εταιρείας Παθολογίας της Ελλάδας και συνολικά 117 άτομα συμμετείχαν στη μελέτη (ποσοστό ανταπόκρισης: 15,3%). Οι συμμετέχοντες απάντησαν μέσω μιας φόρμας Google, στα ερωτηματολόγια: Depression, Anxiety and Stress Scale – 21, the Oldenburg Burnout Inventory (OLBI) και Professional Quality of Life Scale version 5 (ProQOL-5). Εξάντληση εντοπίστηκε στην πλειοψηφία των συμμετεχόντων (88%), το 65,8% πληρούσε τα κριτήρια για τουλάχιστον μέτρια επίπεδα ικανοποίησης από τη συμπόνια και το 71,8% εμφάνισε μέτρια επίπεδα εξουθένωσης. Επιπλέον, περίπου οι μισοί από τους συμμετέχοντες πληρούσαν τα κριτήρια για μέτρια έως εξαιρετικά σοβαρά επίπεδα κατάθλιψης, άγχους και στρες. Τέλος, οι αναλύσεις παλινδρόμησης έδειξαν ότι η κατάθλιψη συσχετίστηκε τόσο με τις κλίμακες του OLBI, όσο και του ProQOL-5. Η πλειοψηφία των παθολόγων που συμμετείχαν στη μελέτη κατά τη διάρκεια της απαγόρευσης κυκλοφορίας του COVID-19, αξιολογήθηκε ως "εξαντλημένη", με υψηλά ποσοστά αρνητικών ψυχολογικών συμπτωμάτων. Η παρούσα μελέτη, παρά τους περιορισμούς, αποτυπώνει τις επιπτώσεις της πανδημίας COVID-19 στους παθολόγους, δίνοντας έτσι το έναυσμα για τη στροφή της προσοχής στην αντιμετώπιση και κυρίως στην πρόληψη πιεστικών καταστάσεων για τους επαγγελματίες υγείας.

ΛΕΞΕΙΣ ΕΥΡΕΤΗΡΙΟΥ: Πανδημία COVID-19, εξάντληση, εξουθένωση, κατάθλιψη, παθολόγοι, Ελλάδα.