

Physical and Mental Fatigue, Social Support and Quality of Life Among Healthcare Professionals in Greece: Which Is the Impact of Demographic and Occupational Features?

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Abstract

The multitude of stressful factors in the work environment, combined with work burnout and the absence of social support, significantly degrades the quality of life of health professionals. The purpose of this research is to examine the levels of fatigue, quality of life and social support in the case of healthcare professionals in the post-pandemic environment, as well as the impact of demographic and occupational features. FAS, MSPSS and GHQ-28 were the psychometric tools that were used. The quantitative method with a structured questionnaire was chosen to conduct the research in 506 health workers, 14 hospitals of the 6th Health Region of Greece. It was observed that there is a statistically significant difference in the case of family, significant others, in the overall scale of social support and physical symptoms ($p < 0.05$), with women scoring a higher mean rank. There is also a statistically significant negative correlation between age and overall social support, as well as its subscales (family, friends, significant others). Further investigation of the factors affecting physical and mental fatigue, social support and quality of life among healthcare professionals in Greece is needed.

Keywords: Social Support, Fatigue, Quality of Life, Healthcare Professionals.

1. Introduction

The overall assessment of human experience has been commonly expressed as quality of life in many disciplines, including psychology, medicine, economics, environmental science, and sociology. From a sociological point of view, the concept of quality indicates satisfaction with life, level of functioning in the environment, while at the same time it allows monitoring the availability of social protection. From a psychological perspective, quality of life provides information about one's feelings and interactions with others. In medicine, quality of life is a relatively new concept, the purpose of which is not only the prevention, alleviation of the symptoms of various diseases and their consequences, but the effort for a more complete, healthy and better life [1].

The study by Saridi et al. [2] investigated health workers' physical activity levels associated with their quality of life. Health workers

from all departments of a General Hospital in Greece participated in the study with the Short Form Health Survey (SF-36) and International Physical Activity Questionnaire. Regarding the lack of physical exercise, the participants mainly blame, in descending order, the lack of free time, working hours, but also pure negligence. Having health problems can negatively affect and worsen almost every parameter of the quality of life. There were also differences based on level of mental health and postgraduate education.

Assessing the quality of life of healthcare professionals during the pandemic was the purpose of the systematic review by Kandula and Wake [3]. The emergence of the pandemic caused numerous diversions in maintaining the quality of life of health professionals from deviations from normal aspects of physical, mental and social well-being. This is largely because healthcare professionals are the most vulnerable population to the transmission of the virus while providing emergency medical services to people infected with the

virus. Also, healthcare professionals often experience fear and anxiety due to viral transmissions in the workplace and potential cross-contamination between family members. Therefore, they tend to experience insomnia caused by sudden increased work pressure, try too hard to balance work and personal life, suffer from mental health disorders and depressive disorders.

The occupational quality of life and occupational stress of 186 health professionals during the pandemic in Attica was examined by Latsou et al. [4]. The majority had moderate levels of compassion satisfaction and fatigue, while nearly half had moderate levels of PTSD. Overall, a moderate level of stress was also found. Demographic and occupational characteristics of healthcare professionals appeared to influence both occupational stress and quality of life. Occupational stress was positively associated with both fatigue and PTSD. Pérez-Valdecantos et al. [5] examined the quality of life of 97 health professionals working in the emergency departments of two Spanish hospitals before the onset of the pandemic. Participants have a good perception of professional quality of life as reflected in administrative support, workload and intrinsic motivation. Health professionals have adequate professional management, with levels of stress, sleep and quality of life according to a controlled lifestyle. Rashid et al. [6] examined quality of life in a sample of 322 health professionals in Bangladesh after the end of the pandemic. In descending order, health professionals had a higher score in physical, psychological, social and finally environmental quality of life. Those who lived in urban areas enjoyed 2.4 times better socially stable lives, but 72% less psychologically satisfying lives. Quality of life in the post-pandemic environment was found to depend on the variable interaction of demographic socioeconomic factors, including age, female gender, education level, and highest monthly income.

Ruiz-Fernández et al. [7] report that emergency department nurses are constantly exposed to distressing experiences that can lead to burnout and compassion fatigue, affecting their professional quality of life. In their cross-sectional study in a sample of 253 nurses in Andalusia, Spain, they examined the relationship of perceived health, professional quality of life, social support, in relation to socio-demographic and professional variables. A large percentage of nurses had a high level of compassion fatigue. Perceived health significantly influenced fatigue and compassion fatigue. Perceived social support was found to be significantly related to occupational quality of life, but had the greatest effect on the occurrence of burnout.

In another study by Theofilou et al. [8] investigated the relationship of health professionals' general health, perceived level of fatigue and social support, combined with sociodemographic and professional variables. The survey was conducted on 165 health professionals working in hospitals in the region of Eastern Macedonia-Thrace and in the urban centers of Athens and Thessaloniki. Data were collected with the General Health Questionnaire (GHQ-28), the Fatigue Assessment Scale (FAS) and the Multidimensional Scale of Perceived Social Support (MSPSS). The majority of health

professionals were found to be characterized by low general health and quality of life and a high level of fatigue. Perceived social support was at high levels. Having a cyclical schedule and heavy work worsens the levels of fatigue and quality of life.

The purpose of this research is to examine the levels of fatigue, quality of life and social support in the case of healthcare professionals in the post-pandemic environment, as well as the impact of demographic and occupational features.

2. Method

This is a quantitative cross-sectional study investigating the variables of social support, fatigue and quality of life. The questionnaire used in this research consists of the following sections:

Section A - Demographic data: the demographic data questionnaire consists of eight questions aimed at capturing the demographic profile of the survey participants (gender, age, education level, marital status, specialty, years of service, work per week, position of responsibility), but also through statistical tests to examine the second research hypothesis.

Section B - Fatigue Assessment Scale: the Greek version of the Fatigue Assessment Scale (FAS) was used, as it has been translated and culturally adapted to the Greek population by Theofilou [9]. The scale was created in 2003 by Michielsen et al. and consists of ten (10) questions, where five (1-5) examine physical fatigue and five (6-10) mental exhaustion, while overall this tool examines the level of overall fatigue. Responses are given on a five-point Likert scale as follows: 1=Never, 2=Sometimes, 3=Always, 4=Often, 5=Always. Questions 4 and 10 are reversed. The total score ranges from 10 to 50. In the event that the total score is up to 22 the respondents fall into the "no fatigue" group, if it is 22-34 then they are categorized as "tired", while if it is more than 35 then they are categorized as "too exhausted." Alikari et al. [10] examined the internal reliability of the Greek version of the scale, where it was found equal to 0.761, while Theofilou et al. [11] report that the internal reliability of the scale is 0.91. In the present work, the Cronbach's α index was found equal to 0.869.

Section C - Social support of nursing staff: the Greek version of the Multidimensional Scale of Perceived Social Support (MSPSS) was used, as it has been translated and culturally adapted to the Greek population by Theofilou [12]. The scale was created in 1988 by students Zimet et al. and consists of 12 questions that assess three sources of perceived social support: family (3, 4, 8, 11), friends (6, 7, 9, 12) and significant others (1, 2, 5, 10). Responses are given on a seven-point Likert scale as follows: 1=Strongly Disagree, 2=Strongly Disagree, 3=Disagree, 4=Neutral, 5=Agree, 6=Strongly Agree, 7=Strongly Agree. The total score ranges from 12 to 84 with higher scores indicating greater social support. Specifically, a score of 65 or less is considered indicative of sufficiently low levels of perceived social support. Mourdoukouta et al. [13] used this scale in their research and found that the internal reliability coefficient is 0.80. In the present work, the Cronbach's α index was found equal to 0.944.

Section D - General Health Questionnaire: the Greek version of the

General Health Questionnaire (GHQ) scale 28 was used, as it has been translated and culturally adapted to the Greek population by Garyfallos et al. [14]. The scale was created in 1978 by Goldberg and consists of 28 questions concerning the respondent's overall health during the last two weeks. These questions are categorized into four groups: a) physical symptoms, b) anxiety and insomnia, c) social dysfunction, d) severe depression. Answers are given on a four-point Likert scale from 0 (best score) to 3 (worst score). The total score ranges from 8 to 84, with higher scores indicating less mental and physical well-being. Garyfallos et al. [14] report that the internal reliability of the scale is equal to 0.93, while Kokkinis et al. [15] 0.89. In the present work, the Cronbach's an index was found equal to 0.899.

The research population consists of all public secondary care health professionals. The research sample consists of a part of this population and a total of 506 employees. On the basis of convenience (opportunity) sampling, health workers working in 14 hospitals in the 6th Health Region (Peloponnese and Ionian Islands, Epirus and Western Greece) were selected. The criteria for entering the respondents into the sample were: a) over 18 years old, b) understanding of the Greek language, c) health professionals as a qualification, d) voluntary participation. Accordingly, exclusion criteria from the sample were: a) insufficient understanding of the Greek language, b) status other than that of a health professional, c) unwillingness to participate in the research voluntarily.

The researcher initially obtained permission from the administration of the 6th Ministry of Health for the research regarding the safeguarding of personal data protection and the

method of data collection. Similarly, permission was then obtained from the scientific board of each nursing organization to distribute the questionnaires. Finally, permission was also obtained from the creators of the questionnaires in order to use them in this research. At the same time, together with the questionnaire there was attached a letter addressed to the health professionals and informing them about the following: a) the identity of the researcher and the purpose of the research, b) the assurance of their anonymity and the confidentiality of the data, c) the fact that the data will be analyzed and presented grouped, d) their voluntary participation in the research and their right to withdraw from the research until a specific date (15.01.2024), after which the processing of the questionnaires will begin, e) the estimated time to complete the questionnaire.

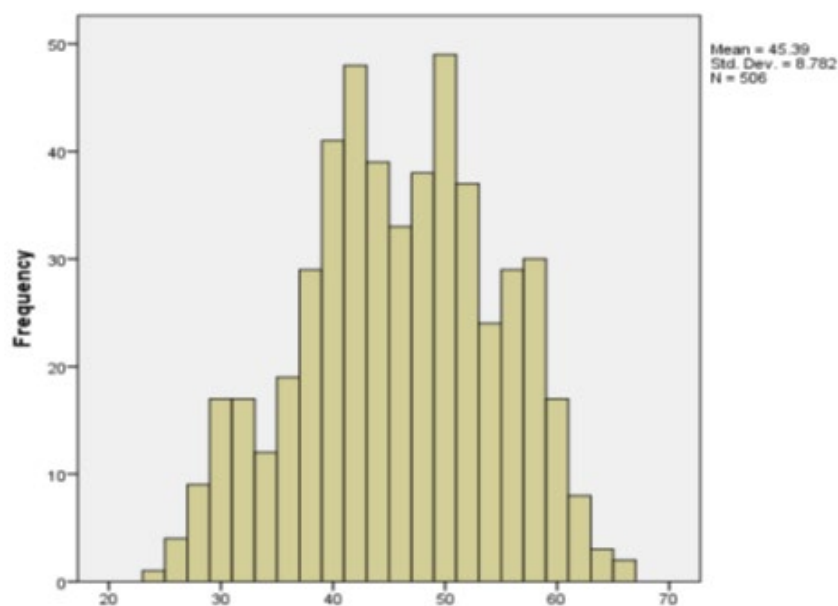
Afterwards, the researcher coded the data into the statistical program SPSS 26, in order to process them. Descriptive statistics (tables of descriptive measures and frequencies) as well as inductive statistics (correlation coefficients, mean differences of respondents' opinions) were used to test the hypotheses. For all controls the level of statistical significance was set equal to $\alpha=0.05$.

3. Results

Demographics Most of the participants in the survey are women (65.6%), university graduates (49.4%), married (65.8%), members of the nursing staff (36.2%) and who do not hold a position of responsibility (71.7%).

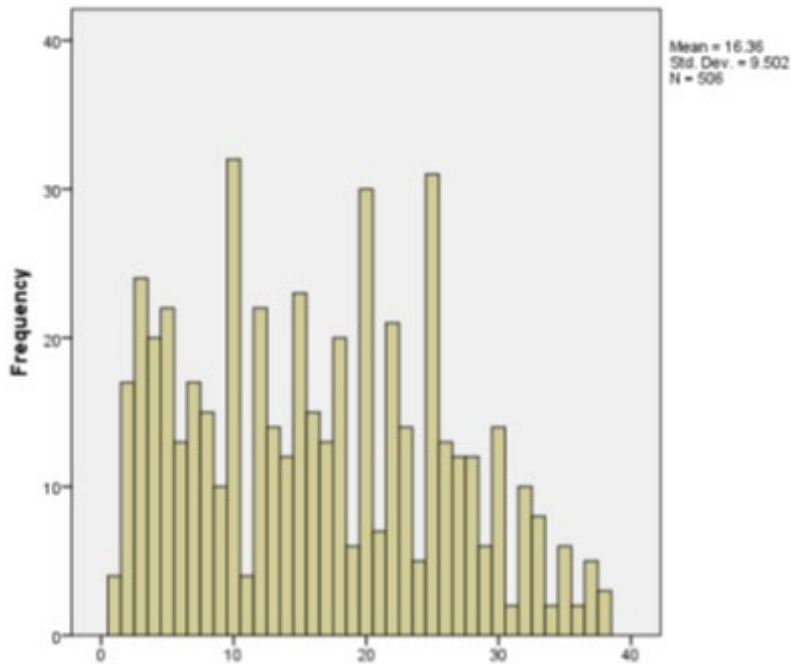
In terms of age, the respondents are 24-66 years old with an average of 45.39 years (SD=8.782).

Graph 1 Age of respondents



Regarding the years of work in their specialty, the range is 1-38 years with an average of 16.36 years (TA=9.502). Regarding the weekly working hours, they range from 8-120 hours, with an average of 43.98 hours (TA=10.404).

Graph 2 Total years of work of respondents in their specialty



Graph 3 Respondents' working hours per week

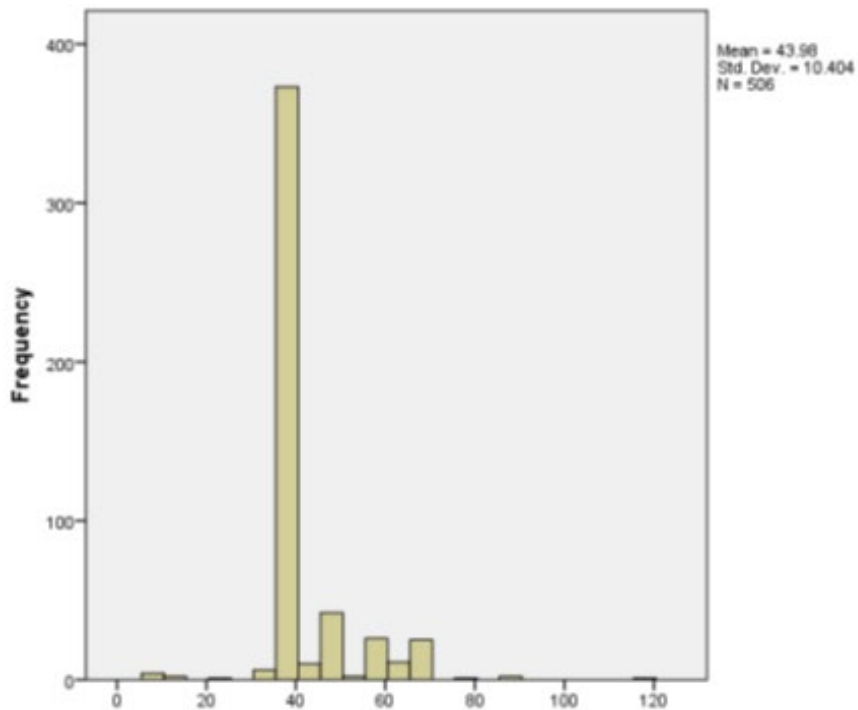


Table 1 presents the descriptive measures of the FAS scale and its subscales. It is observed that for the separate scales of physical fatigue and mental exhaustion the average is less than 22 which means that the respondents fall into the "non-fatigue" group. Overall, however, it is found that $M=24.10$, which means that overall, there is fatigue.

	N	Mean	Standard deviation
Physical fatigue	506	12.4328	3.39429
Mental Fatigue	506	11.6680	3.70555
Total FAS	506	24.1008	6.54366

Table 1: Descriptive FAS scale measures

As can be seen from Table 2, more than half of the respondents (55.9%) fall into the 22-34 score category and are therefore categorized as "fatigued". The percentage of those categorized as "non fatigued" is also large (37%). Only a small percentage of 7.1% are categorized as "extremely fatigued".

	Frequency	Percentage
Up to 21	187	37.0
22-34	283	55.9
35 and over	36	7.1

Table 2: Categorization of respondents by fatigue level

Table 3 presents the descriptive measures of the MSPSS scale and its subscales. It is observed that for the individual scales and overall, the average is less than 65, which indicates low levels of perceived social support. The lowest levels of social support are found in friends (M=19.35, TA=4.193), then in family (M=20.41, TA=4.446) and highest in significant others (M=21.09, TA=4.236). Overall, however, there is not a high level of social support.

	N	Mean	Standard deviation
Family	506	20.4111	4.44649
Friends	506	19.3557	4.19334
Important Others	506	21.0949	4.23691
Total MSPSS	506	60.8617	11.30393

Table 3: Descriptive MSPSS scale measures

Table 4 presents the descriptive measures of the GHQ scale and its subscales. It is observed that there are moderate to high levels of mental and physical well-being in the individual scales. Higher average and therefore lower levels of mental and physical well-being are recorded in the anxiety and insomnia subscale (M=14.76, TA=4.267), then in physical symptoms (M=14.39, TA=3.951) and then in social dysfunction (M=14.30, TA=2.79). Conversely, a lower mean is noted in the depression subscale (M=10.36, TA=3.169). Overall, however, it is observed that the average of the entire scale is above average.

	N	Mean	Standard deviation
Physical symptoms	504	14.3929	3.95155
Anxiety and Insomnia	506	14.7668	4.26788
Social Dysfunction	506	14.3024	2.79063
Severe depression	506	10.3617	3.16941
Total GHQ	504	53.7996	10.63872

Table 4: GHQ Scale Descriptive Measures

The effect of demographic and occupational characteristics on fatigue, social support, and general health was then explored. The Mann-Whitney test was used to control for gender. From the table below, it is observed that there is a statistically significant difference in the case of family, significant others, in the overall scale of social support and physical symptoms ($p < 0.05$), with women scoring a higher mean rank. There is also a statistically significant difference in the case of severe depression ($p < 0.05$), with men scoring a higher mean rank.

	Gender	N	Mean Rank	p-value
Physical fatigue	Male	0174	242.21	0,207
	Female	332	259.42	
	Total	506		
Mental fatigue	Male	174	240.57	0,148
	Female	332	260.27	
	Total	506		
Total FAS	Male	174	240.15	0,137
	Female	332	260.50	
	Total	506		
Family	Male	174	232.39	0,018
	Female	332	264.56	
	Total	506		
Friends	Male	174	237.86	0,080
	Female	332	261.70	
	Total	506		
Important others	Male	174	232.88	0,021
	Female	332	264.31	
	Total	506		
Total MSPSS	Male	174	233.53	0,026
	Female	332	263.97	
	Total	506		
Physical symptoms	Male	174	227.83	0,006
	Female	330	265.51	
	Total	504		
Anxiety and insomnia	Male	174	239.85	0,127
	Female	332	260.66	
	Total	506		
Social dysfunction	Male	174	253.86	0,968
	Female	332	253.31	
	Total	506		
Severe depression	Male	174	271.71	0,041
	Female	332	243.95	
	Total	506		
Total GHQ	Male	174	243.99	0,340
	Female	330	256.99	
	Total	504		

Table 5: Effect of gender on fatigue, social support and quality of life

Spearman's coefficient was used to test the effect of age. From the table below, it can be seen that there is a statistically significant positive correlation between age and overall fatigue, as well as its subscales (physical fatigue and mental exhaustion). There is also a statistically significant negative correlation between age

and overall social support, as well as its subscales (family, friends, significant others). Finally, there is a statistically significant positive correlation between age and general health, but also between some of its subscales (anxiety and insomnia, social dysfunction).

		Age
Physical fatigue	Correlation Coefficient	.251**
	Sig. (2-tailed)	.000
	N	506
Mental fatigue	Correlation Coefficient	.181**
	Sig. (2-tailed)	.000
	N	506
Total FAS	Correlation Coefficient	.229**
	Sig. (2-tailed)	.000
	N	506
Family	Correlation Coefficient	-.090*
	Sig. (2-tailed)	.042
	N	506
Friends	Correlation Coefficient	-.110*
	Sig. (2-tailed)	.013
	N	506
Important others	Correlation Coefficient	-.145**
	Sig. (2-tailed)	.001
	N	506
Total MSPSS	Correlation Coefficient	-.143**
	Sig. (2-tailed)	.001
	N	506
Physical symptoms	Correlation Coefficient	.006
	Sig. (2-tailed)	.900
	N	504
Anxiety and insomnia	Correlation Coefficient	.095*
	Sig. (2-tailed)	.032
	N	506
Social dysfunction	Correlation Coefficient	.142**
	Sig. (2-tailed)	.001
	N	506
Severe depression	Correlation Coefficient	.022
	Sig. (2-tailed)	.629
	N	506
Total GHQ	Correlation Coefficient	.087*
	Sig. (2-tailed)	.050
	N	504

**p<0.01

*p<0.05

Table 6: Effect of age on fatigue, social support and quality of life

The Kruskal-Wallis test was used to test the effect of educational level. From the table below, it can be seen that there is a statistically significant difference in the case of anxiety and insomnia, but also

of general health ($p < 0.05$), with masters/doctorate holders having a higher mean rank.

	Education	N	Mean Rank	p-value
Physical fatigue	Gymnasium	7	366.93	0,061
	Lyceum	106	248.18	
	University	250	243.33	
	Master/PhD	143	269.67	
	Total	506		
Mental fatigue	Gymnasium	7	352.50	0,107
	Lyceum	106	251.78	
	University	250	242.87	
	Master/PhD	143	268.51	
	Total	506		
Total FAS	Gymnasium	7	359.71	0,062
	Lyceum	106	250.40	
	University	250	241.94	
	Master/PhD	143	270.81	
	Total	506		
Family	Gymnasium	7	175.07	0,397
	Lyceum	106	263.24	
	University	250	248.60	
	Master/PhD	143	258.68	
	Total	506		
Friends	Gymnasium	7	158.07	0,379
	Lyceum	106	255.98	
	University	250	253.79	
	Master/PhD	143	255.83	
	Total	506		
Important others	Gymnasium	7	114.71	0,088
	Lyceum	106	254.46	
	University	250	254.04	
	Master/PhD	143	258.64	
	Total	506		
Total MSPSS	Gymnasium	7	121.43	0,108
	Lyceum	106	258.31	
	University	250	251.94	
	Master/PhD	143	259.14	
	Total	506		
Physical symptoms	Gymnasium	7	340.50	0,303
	Lyceum	106	245.25	
	University	248	247.91	
	Master/PhD	143	261.53	
	Total	504		
Anxiety and insomnia	Gymnasium	7	399.14	0,030
	Lyceum	106	261.09	

	University	250	242.63	
	Master/PhD	143	259.75	
	Total	506		
Social dysfunction	Gymnasium	7	397.86	0,052
	Lyceum	106	243.01	
	University	250	255.86	
	Master/PhD	143	250.08	
	Total	506		
Severe depression	Gymnasium	7	381.21	0,085
	Lyceum	106	239.33	
	University	250	253.18	
	Master/PhD	143	258.32	
	Total	506		
Total GHQ	Gymnasium	7	403.50	0,042
	Lyceum	106	251.92	
	University	248	245.74	
	Master/PhD	143	257.27	
	Total	504		

Table 7: Effect of educational level on fatigue, social support and quality of life

The Kruskal-Wallis test was used to test the effect of marital status. From the table below it is observed that there is a statistically significant difference in all variables ($p < 0.05$).

	Marital status	N	Mean Rank	p-value
Physical fatigue	Single	114	238.70	0,000
	Married	333	247.66	
	Divorced	50	294.52	
	Widowed	9	429.17	
	Total	506		
Mental fatigue	Single	114	248.44	0,003
	Married	333	246.73	
	Divorced	50	280.48	
	Widowed	9	418.11	
	Total	506		
Total FAS	Single	114	244.11	0,000
	Married	333	246.06	
	Divorced	50	291.76	
	Widowed	9	434.94	
	Total	506		
Family	Single	114	227.41	0,000
	Married	333	281.23	
	Divorced	50	146.45	
	Widowed	9	152.50	
	Total	506		
Friends	Single	114	256.03	0,040

	Married	333	261.07	
	Divorced	50	214.29	
	Widowed	9	159.33	
	Total	506		
Important others	Single	114	234.66	0,000
	Married	333	277.38	
	Divorced	50	168.40	
	Widowed	9	81.44	
	Total	506		
Total MSPSS	Single	114	239.10	0,000
	Married	333	276.57	
	Divorced	50	159.43	
	Widowed	9	104.89	
	Total	506		
Physical symptoms	Single	114	240.91	0,050
	Married	331	249.79	
	Divorced	50	276.12	
	Widower	9	367.67	
	Total	504		
Anxiety and insomnia	Single	114	245.61	0,048
	Married	333	249.98	
	Divorced	50	272.67	
	Widowed	9	377.28	
	Total	506		
Social dysfunction	Single	114	249.93	0,001
	Married	333	244.57	
	Divorced	50	290.44	
	Widowed	9	423.94	
	Total	506		
Severe depression	Single	114	253.71	0,000
	Married	333	241.63	
	Divorced	50	305.35	
	Widowed	9	401.83	
	Total	506		
Total CHQ	Single	114	242.73	0,000
	Married	331	243.95	
	Divorced	50	301.72	
	Widowed	9	417.28	
	Total	504		

Table 8: Effect of marital status on fatigue, social support and quality of life

The Kruskal-Wallis test was used to test the effect of job position. From the table below, it is observed that there is a statistically significant difference in the case of family and overall social support ($p < 0.05$), with the nursing staff having a higher mean rank.

	Job Position	N	Mean Rank	p-value
Physical fatigue	Medical staff	59	263.11	0,338
	Nursing staff	183	259.18	
	Other scientific staff	42	256.65	
	Paramedics	49	265.28	
	Administrative staff	123	253.02	
	Technical staff	50	208.37	
	Total	506		
Mental fatigue	Medical staff	59	233.50	0,231
	Nursing staff	183	252.51	
	Other scientific staff	42	288.68	
	Paramedics	49	264.74	
	Administrative staff	123	261.63	
	Technical staff	50	220.14	
	Total	506		
Total FAS	Medical staff	59	244.93	0,269
	Nursing staff	183	256.16	
	Other scientific staff	42	276.05	
	Paramedics	49	266.37	
	Administrative staff	123	258.83	
	Technical staff	50	209.23	
	Total	506		
Family	Medical staff	59	186.29	0,003
	Nursing staff	183	271.26	
	Other scientific staff	42	246.07	
	Paramedics	49	231.16	
	Administrative staff	123	270.82	
	Technical staff	50	253.33	
	Total	506		
Friends	Medical staff	59	212.36	0,192
	Nursing staff	183	267.16	
	Other scientific staff	42	272.23	
	Paramedics	49	241.93	
	Administrative staff	123	250.34	
	Technical staff	50	255.44	
	Total	506		
Important others	Medical staff	59	208.52	0,111
	Nursing staff	183	269.69	
	Other scientific staff	42	259.85	
	Paramedics	49	237.31	
	Administrative staff	123	258.99	
	Technical staff	50	244.34	
	Total	506		

Total MSPSS	Medical staff	59	196.20	0,024
	Nursing staff	183	270.94	
	Other scientific staff	42	263.85	
	Paramedics	49	234.90	
	Administrative staff	123	259.48	
	Technical staff	50	252.11	
	Total	506		
Physical symptoms	Medical staff	59	248.16	0,843
	Nursing staff	182	258.74	
	Other scientific staff	42	261.25	
	Paramedics	48	265.47	
	Administrative staff	123	244.47	
	Technical staff	50	234.84	
	Total	504		
Anxiety and insomnia	Medical staff	59	268.64	0,838
	Nursing staff	183	256.96	
	Other scientific staff	42	236.75	
	Paramedics	49	247.55	
	Administrative staff	123	256.02	
	Technical staff	50	236.70	
	Total	506		
Social dysfunction	Medical staff	59	252.46	0,645
	Nursing staff	183	244.90	
	Other scientific staff	42	271.20	
	Paramedics	49	271.84	
	Administrative staff	123	245.53	
	Technical staff	50	272.96	
	Total	506		
Severe depression	Medical staff	59	268.83	0,180
	Nursing staff	183	235.32	
	Other scientific staff	42	273.98	
	Paramedics	49	263.96	
	Administrative staff	123	248.15	
	Technical staff	50	287.68	
	Total	506		
Total GHQ	Medical staff	59	263.43	0,947
	Nursing staff	182	250.62	
	Other scientific staff	42	261.50	
	Paramedics	48	262.27	
	Administrative staff	123	243.91	
	Technical staff	50	250.63	
	Total	504		

Table 9: Effect of work position on fatigue, social support and quality of life

Spearman's coefficient was used to test the effect of years of experience. From the table below, it can be seen that there is a statistically significant positive correlation between years of experience and overall fatigue, as well as its subscales (physical fatigue and mental exhaustion). There is also a statistically

significant negative correlation between years of experience and overall social support, but only the significant others subscale. Finally, there is a statistically significant positive correlation between years of experience and general health, but also between some of its subscales (anxiety and insomnia, social dysfunction).

		Years of experience
Physical fatigue	Correlation Coefficient	.249**
	Sig. (2-tailed)	.000
	N	506
Mental fatigue	Correlation Coefficient	.192**
	Sig. (2-tailed)	.000
	N	506
Total FAS	Correlation Coefficient	.236**
	Sig. (2-tailed)	.000
	N	506
Family	Correlation Coefficient	-.052
	Sig. (2-tailed)	.247
	N	506
Friends	Correlation Coefficient	-.083
	Sig. (2-tailed)	.064
	N	506
Important others	Correlation Coefficient	-.119**
	Sig. (2-tailed)	.007
	N	506
Total MSPSS	Correlation Coefficient	-.107*
	Sig. (2-tailed)	.016
	N	506
Physical symptoms	Correlation Coefficient	.026
	Sig. (2-tailed)	.556
	N	504
Anxiety and insomnia	Correlation Coefficient	.102*
	Sig. (2-tailed)	.022
	N	506
Social dysfunction	Correlation Coefficient	.123**
	Sig. (2-tailed)	.006
	N	506
Severe depression	Correlation Coefficient	.031
	Sig. (2-tailed)	.485
	N	506
Total GHQ	Correlation Coefficient	.098*
	Sig. (2-tailed)	.028
	N	504

**p<0.01

*p<0.05

Table 10: Effect of years of experience on fatigue, social support and quality of life

Spearman's coefficient was used to test the effect of weekly working hours. From the table below, it can be seen that there is a statistically significant positive correlation between weekly working hours and overall fatigue, as well as its subscales (physical fatigue and mental exhaustion). There is also a statistically significant negative

correlation between weekly working hours and total social support, as well as its sub-climates (family, friends, significant others). Finally, there is no statistically significant correlation between weekly working hours and general health, as well as its subscales.

		Working hours / week
Physical fatigue	Correlation Coefficient	.142**
	Sig. (2-tailed)	.001
	N	506
Mental fatigue	Correlation Coefficient	.127**
	Sig. (2-tailed)	.004
	N	506
Total FAS	Correlation Coefficient	.145**
	Sig. (2-tailed)	.001
	N	506
Family	Correlation Coefficient	-.223**
	Sig. (2-tailed)	.000
	N	506
Friends	Correlation Coefficient	-.161**
	Sig. (2-tailed)	.000
	N	506
Important others	Correlation Coefficient	-.187**
	Sig. (2-tailed)	.000
	N	506
Total MSPSS	Correlation Coefficient	-.207**
	Sig. (2-tailed)	.000
	N	506
Physical symptoms	Correlation Coefficient	.037
	Sig. (2-tailed)	.408
	N	504
Anxiety and insomnia	Correlation Coefficient	.074
	Sig. (2-tailed)	.096
	N	506
Social dysfunction	Correlation Coefficient	.073
	Sig. (2-tailed)	.103
	N	506
Severe depression	Correlation Coefficient	.060
	Sig. (2-tailed)	.178
	N	506
Total GHQ	Correlation Coefficient	.081
	Sig. (2-tailed)	.068
	N	504

Table 11: Effect of weekly working hours on fatigue, social support and quality of life

The Mann-Whitney test was used to test the position of responsibility. From the table below, it is observed that there is a statistically significant difference in the case of mental exhaustion and social dysfunction ($p < 0.05$), with those who do not have a

position of responsibility scoring a higher mean rank. There is also a statistically significant difference in the case of family, significant others, the overall scale of social support, ($p < 0.05$), with those in a position of responsibility scoring a higher mean rank.

	Holding a position of responsibility	N	Mean Rank	p-value
Physical fatigue	Yes	143	245.41	0,433
	No	363	256.69	
	Total	506		
Mental fatigue	Yes	143	228.89	0,017
	No	363	263.19	
	Total	506		
Total FAS	Yes	143	235.22	0,077
	No	363	260.70	
	Total	506		
Family	Yes	143	277.79	0,019
	No	363	243.93	
	Total	506		
Friends	Yes	143	263.63	0,325
	No	363	249.51	
	Total	506		
Important others	Yes	143	286.83	0,001
	No	363	240.37	
	Total	506		
Total MSPSS	Yes	143	279.92	0,011
	No	363	243.09	
	Total	506		
Physical symptoms	Yes	143	271.55	0,064
	No	361	244.95	
	Total	504		
Anxiety and insomnia	Yes	143	271.64	0,079
	No	363	246.35	
	Total	506		
Social dysfunction	Yes	143	214.49	0,000
	No	363	268.87	
	Total	506		
Severe depression	Yes	143	257.33	0,709
	No	363	251.99	
	Total	506		
Total GHQ	Yes	143	260.13	0,459
	No	361	249.48	
	Total	504		

Table 12 Effect of holding a position of responsibility on fatigue, social support and quality of life

4. Discussion

The purpose of this research was to examine the levels of fatigue, quality of life and social support in the case of healthcare professionals in the post-pandemic environment, as well as the impact of demographic and occupational features. According to the results of the statistical analysis, the main findings of this research are:

- 1) There is a statistically significant difference on the basis of gender in the case of family, significant others, total scale of social support, physical symptoms and major depression.
- 2) There is a statistically significant positive correlation between age and overall fatigue, as well as its subscales (physical fatigue and mental exhaustion), a statistically significant negative correlation between age and overall social support, as well as its subscales (family, friends, significant others), but also a statistically significant positive correlation between age and general health, but also between some of its subscales (anxiety and insomnia, social dysfunction).
- 3) There is a statistically significant difference based on educational level in the case of anxiety and insomnia, but also of overall general health.
- 4) There is a statistically significant difference on the basis of marital status in all variables.
- 5) There is a statistically significant difference in the basis of job position in the case of family and overall social support.
- 6) There is a statistically significant positive correlation between years of experience and total fatigue, as well as its subscales (physical fatigue and mental exhaustion), a statistically significant negative correlation between years of experience and total social support and the significant others subscale, as well as statistically significant positive correlation between years of experience and general health, as well as anxiety and insomnia and social dysfunction subscales.
- 7) There is a statistically significant positive correlation between weekly working hours and total fatigue, as well as its subscales (physical fatigue and mental exhaustion), a statistically significant negative correlation between weekly working hours and total social support, as well as its subscales (family, friends, significant others).
- 8) There is a statistically significant differences in the basis of having a position of responsibility in the case of mental exhaustion, social dysfunction, family, significant others, as well as the overall scale of social support.

The demographic characteristics of the respondents were found to influence their level of health and therefore their quality of life, which does not contradict the findings of previous studies (2,4). Similarly, fatigue was found to be influenced by the demographic characteristics of healthcare professionals, a finding consistent with the findings of previous studies (7). In addition, studies (16) have found an effect of demographics on social support.

The present research is subject to certain limitations. The first limitation is that the sample of health professionals comes from a specific geographical region, which means that the results cannot be generalized to the wider research population. Therefore, there

is a need for further investigation of this issue, involving a sample of healthcare professionals that is more representative of the wider population.

The second limitation is that specific scales were used to collect the data, which examine specific dimensions of the variables under consideration. Possibly the use of other tools would (and) lead to other conclusions. Therefore, in the future it is worth using other tools to collect the data. Another limitation related to the data collection method is that quantitative research does not provide the possibility of in-depth investigation of respondents' opinions, attitudes and behaviors based on their experiences and the meaning they attribute to them, as in qualitative research. Consequently, the future conduct of a qualitative research, or even a mixed method research, could perhaps also lead to the production of new knowledge.

The third limitation of this research is that the differences in the opinions of health professionals regarding the levels of fatigue, quality of life and social support were examined but only on the basis of their demographic variables. However, there are other factors that, based on the literature, have been found to affect these levels, such as organizational factors that were not examined in this research. Therefore, future research can also examine the effect of these factors on the levels of fatigue, quality of life and social support of healthcare professionals in the post-pandemic environment.

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