

Article

Leadership Dynamics and Well-Being of Hospital Staff in Health Crisis Contexts in Greece

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Abstract

The present study takes place in the context of the COVID-19 pandemic and the Greek economic crisis, in which the health systems reached their limit and the physical and psychological exhaustion of professionals increased, testing supportive leadership in hospitals. An ex post facto, descriptive, and correlational study was designed, with non-probabilistic sampling, applied to 741 health professionals from public and private hospitals located in Attica and Piraeus. An 18-item ad hoc questionnaire was used, validated through an exploratory factor analysis (KMO = 0.805; 4 dimensions) and with a high reliability ($\alpha = 0.87$). The staff showed a moderately positive assessment of the leadership and the supervisor dynamics, but a low enjoyment of work during the crisis. The hypothesis of generalized stress was discarded, with differences found according to gender (more conflict and less recognition perceived by women) and age (more conflicts between the supervisors and younger staff), without important differences according to level of education or work position. It can be concluded that support, psychological capital, and work relations, appeared as relatively independent constructs, modulated by organizational and personal factors, which underlines the need for specific interventions oriented towards the well-being and recognition of health professionals in contexts of crisis.

Keywords: leadership; psychological support; work relations; healthcare personnel; COVID-19

1. Introduction

Starting in 2019, the entire planet was forced to face the COVID-19 pandemic caused by the SARS-CoV-2 virus, which first appeared in Wuhan, China, in December 2019. It is an acute respiratory disease commonly known as a disease caused by the coronavirus from 2019 (COVID-19) [1]. Initially, the virus was reported as an epidemic, and every country began to take measures to avoid its propagation. However, due to globalization and the travel of people, the epidemic became a pandemic (March 2020) [2]. It was evident that the coordination with other countries and the action of the worldwide community was necessary to identify, respond to, and manage the risk. This function clearly belonged to Supranational Structures, but also to each individual country.

As of today, six years after the outbreak of the pandemic, the World Health Organization (WHO) [2] has developed strategies to face it, publishing them on their official website. According to this institution, if they are implemented rapidly and in coherence at the national, regional, and worldwide level, they will allow the world to put an end to the



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acute phase of the pandemic. At the same time, it has laid the groundwork for a new and more effective response to the pandemic.

The study was situated at the intersection of two overlapping crises: the COVID-19 pandemic and the protracted Greek economic crisis. This combination was especially relevant because the pandemic did not occur in a neutral context, but rather within a healthcare and labor system already weakened by years of austerity, reduced public spending, and structural fragility, as reflected by the World Bank in 2022 [3]. In Greece, COVID-19 intensified pre-existing vulnerabilities, particularly in healthcare delivery, working conditions, and sectors such as tourism, making the social and organizational impact of the pandemic especially severe.

The role of leadership in the management of Health Units and their organization is fundamental, but so is the contribution of staff psychology, where its role is crucial, as well as the relationship between employees. The study by Ibañez-Cubillas and Miranda-Pinto [4] points to the close association between professional leadership and the members of a team in general. Focusing on the area of health, Tsounis and Sarafis [5] point out that leadership is closely related with the psychological state of the health professionals and their work experience in mental, social, and physical terms, which without a doubt affects the quality of the services provided in the health sector, in this line, as Ibañez-Cubillas and Miranda-Pinto and Tsounis and Sarafis [4,5] indicated, the contribution of staff psychology is especially relevant in crisis contexts because healthcare workers do not respond only to formal protocols or workload distribution. Their perception of recognition, support, calm, interpersonal trust, and emotional safety can shape how they interpret leadership behaviors and how they experience daily work. The matter of the influence of leadership acquired new dimensions during the period of crisis generated by COVID-19 in Greece, in which the needs of health services considerably increased. The health systems in every country had reached their limit and physically, psychologically, and socially exhausted the health professionals of the sector. Therefore, the need for supportive leadership was even greater, given that on the contrary, problems in employee relations would be created [6].

The purpose of the present study was to measure and determine to what degree the staff from six public hospitals in Attica, four general hospitals in Piraeus and three private hospitals in Attica believed that, during the period of crisis in Greece (economic and due to the COVID-19 pandemic), their leadership supported them through the adoption of supporting behaviors, as well as understanding their problems and concerns, recognizing their efforts, and informing them of the changes. In addition, the study sought to examine the association between the demographic characteristics of the sample (gender, age, level of education, work position, and previous experience) and their perceptions of supporting leadership, their psychological capital, and the relationships between them. The final exploratory aim was to investigate the existence of a correlation between the psychological capital of supportive leadership, and the relationships between employees. In this regard, and before outlining the initial hypotheses, it is necessary to clarify that when we refer to psychological capital, we understand it as a personal resource comprising self-efficacy, hope, resilience, and optimism, which influences how professionals cope with uncertainty, stress, and work demands, and whose development depends on both individual factors and the organizational climate, recognition, and support received [7]. Supportive leadership, for its part, is a management style based on listening, guidance, recognition, and assistance in problem-solving, conditioned by the institutional culture, the leader's training, and the work context. In healthcare settings, both constructs are often associated with less burnout, greater adaptation, increased well-being and job satisfaction, as well as stronger cooperation and less interpersonal conflict [8].

The hypothesis was whether the positive assessment of the degree of supportive leadership by health professionals was accompanied by a positive assessment of their psychological capital and by better relationships among employees. When health professionals perceived that their leaders supported them, they also tended to feel psychologically stronger, with greater confidence, optimism, and resilience, and to have better relationships with their colleagues.

2. Methods

2.1. Study Design

The methodology used, which was quantitative in nature, is supported by an ex post facto design with a descriptive approach through a cross-sectional quantitative survey, due to the numerical and reliable nature of the data collected, and the use of a deductive and structured research strategy [9,10].

The objective of the present research study was to investigate the existence of a correlation between the psychological capital of supportive leadership, and the relationships between employees. Based on this, the following working hypotheses were posited:

Hypothesis 1. *Health center staff experienced situations of stress and anxiety during the COVID-19 crisis.*

Hypothesis 2. *Male staff of the health centers perceived situations of conflict in the performance of their work.*

Hypothesis 3. *Younger staff in health centers perceived situations of conflict the performance of their work.*

Hypothesis 4. *Staff with a higher level of education in the health centers perceived situations of conflict the performance of their work.*

Hypothesis 5. *The job position does not determine the perception of conflict situations in the performance of one's work.*

To achieve these objectives and test these hypotheses, an ex post facto study method was used, so that the objective will be met a posteriori, as indicated by [10].

2.2. Analysis Performed

The present study, as previously mentioned, was centered on analyzing answers of the participants to the questionnaire. The completion of the questionnaire was performed in-person and anonymously, with the study researchers present in the hospital to solve any comprehension problems in some of the instrument items that may arise.

2.3. Instrument

An ad hoc questionnaire was designed ad hoc, composed of 37 items. The first 4 referred to the identification of dependent variables (gender, age, level of education, position in the hospital center and marital status) (Appendix A). The 33 remaining ones corresponded to independent variables, which tried to provide an answer to the research questions and hypotheses within which this study is framed. The response scale of the first set was nominal in nature, while a Likert-type scale was used in the second part, in which 1 corresponded to complete disagreement, and 5 to complete agreement.

In order to provide reliability to the instrument, a Cronbach's Alpha test was performed. It was observed that the reliability of the instrument was very high (0.87), considering the contributions by Mateo [10], Roco-Videla, Flores, Olguin-Barraza, and Maureira-Carsalade [11], and Hernández-Samperí and Mendoza Torres [12].

To verify the validity of the construct of the instrument, an exploratory factor analysis (EFA) was performed, through the performance of Bartlett's sphericity test (approximate Chi-square of 2286.439 and significance values of 0.000), in addition to the calculation of the Kaiser–Meyer–Olkin index ($KMO = 0.805$).

Principal component analysis was used as the extraction method, given its exploratory nature and its usefulness in identifying underlying latent structures in newly constructed instruments. Subsequently, a Varimax orthogonal rotation with Kaiser normalization was applied to maximize the interpretability of the factors and obtain a simpler and more conceptually coherent factor solution.

For factor retention, several methodological criteria were considered together: (a) eigenvalues greater than one (Kaiser criterion); (b) theoretical interpretability of the obtained factor solution; (c) analysis of the factor loadings of the items; and (d) absence of significant cross-loadings. The results from the analysis show the existence of 4 factors (or dimensions) that explain 84.548% of the total explained variance, a percentage that can be considered high for instruments assessing psychosocial variables. The observed communalities reflected an adequate representation of the retained items within the resulting factor structure, indicating that a substantial proportion of the variance for each variable was explained by the extracted factors.

The analysis eliminated 15 of the proposed items, with a final number of 18 items, which obtained scores lower than 0.30, as established by Mavrou [13], distributed into four dimensions—as previously indicated—as shown in Table 1.

Dimension 1: Relationships and well-being with superiors, which includes items related to conflicts with superiors, stress, work organization, professional evaluation, and work enjoyment during the crisis.

Dimension 2: Organizational changes and interpersonal calm. This refers to salary changes, the supervisor's focus on performance and people, conflicts with colleagues, and the ability to remain calm.

Dimension 3: Peer support and operational stability. This refers to fostering positive relationships with colleagues, avoiding conflicts with them, reducing visits to private hospitals, and maintaining the healthcare organization.

Dimension 4: Supervisor dynamics and sustainable achievements. This includes aspects related to potential conflicts with the supervisor, achievement of objectives, supervisor morale, reduction in healthcare spending, and consistency in the quality of healthcare services.

After establishing construct validity, the content validity of the resulting instrument was assessed. For this purpose, expert judgment was used, following the guidelines of [14]. The questionnaire was provided electronically to nine Spanish university professors (three from the University of Granada, three from the University of Málaga, and three from the University of Córdoba) so they could indicate the relevance and clarity of each item, as indicated by the factor analysis. These experts rated the items from one to five in each of the indicated areas (relevance and clarity), with 1 being completely clear or completely relevant and 5 being completely irrelevant or completely unclear. Ultimately, the experts indicated that the items were clear and relevant and that they measured and fulfilled the study's objective.

Furthermore, for its proper administration, the current legislation in Greece regarding personal data was strictly followed, and all ethical principles governing research with human participants were observed. Participation in the study was voluntary and anonymous, and respondents were informed about the purpose of the research and the confidentiality of their answers.

Table 1. Exploratory factor analysis.

Items	Dimension 1	Dimension 2	Dimension 3	Dimension 4
1. I had conflicts with my superiors.	−0.524			
2. I felt stressed.	−0.495			
3. My superiors organized the work well in the health unit.	0.406			
4. My superiors knew how to value me as a professional.	−0.362			
5. I enjoyed my work during the health crisis.	0.349			
6. There was a change in salary.		0.424		
7. The supervisor placed great importance on performance and people.		0.418		
8. I had conflicts with my colleagues.		−0.395		
9. I remained calm at all times.		0.336		
10. The number of people visiting private hospitals has decreased.			0.505	
11. My colleagues tried to cheer me up.			0.483	
12. I have tried to avoid problematic situations at work with my colleagues.			−0.357	
13. Regular maintenance was performed on the machinery.			−0.303	
14. I had conflicts with a supervisor.				0.418
15. I achieved my goals.				0.392
16. My supervisor encouraged me.				0.343
17. Health spending has decreased.				0.323
18. The quality of service was consistent.				0.310

Source: created by authors.

Given that the study did not involve any interventions nor collect any identifiable or sensitive personal data, no formal approval from an ethics committee nor an institutional review committee was needed. Nevertheless, the research study was conducted in agreement with the ethical guidelines of scientific research and the General Data Protection Regulation (GDPR 2016/679).

Before starting the completion of the questionnaire, a brief text provided information to the participants about the purpose of the survey, which ensured them that the anonymity and confidentiality of the information would be respected, that the confidentiality of the answers would be protected, and also provided information about the voluntary character of the survey.

2.4. Analyses Performed

In the present study, the following analyses were performed to achieve the objectives set forth:

First, a descriptive analysis was performed of the 18 variables that shaped the questionnaire through central tendency (mean) and dispersion (standard deviation) measurements.

In second place, a descriptive analysis of the four dimensions of the questionnaire was performed, similar to the previous one. In third place, a variance analysis was conducted to verify the existence or not of differences in each of the dimensions of the questionnaire as a function of the independent variables (sex, age, marital status, level of education, and job position) through a Student's T test and an ANOVA, with the SPSS 28 program. Then, the relationship between the dimensions that shaped the questionnaire was verified through bivariate correlations.

3. Results

3.1. Population and Sample

The starting population in the present study was composed by all those who worked in the health centers in the region of Attica (Greece), specifically in the six General Public Hospitals in Attica, four Public General Hospitals in Piraeus, and three Private Hospitals in Attica. To achieve higher participation, a letter was sent to the directors of the aforementioned hospitals. The departments participating in this study were those that responded to our call after a mass mailing to all units, specifically the departments of Pathology, Pulmonology, and Surgery, inviting them to participate in the study; units were selected for mailing because they were directly involved in the clinical management of high patient demand and sustained organizational pressure during the health crisis, making them especially relevant for the analysis of supportive leadership and work well-being.

To select the sample, a non-probabilistic, or convenience sampling method was used [15]. As a result, a sample of 741 professionals was obtained. Of these, 28.1% were men, and 71.9% women, with a mean age of 42.10 years old. At first, the existence of bias in the sampling towards the female gender could be pointed out. Nevertheless, just as [16] and [17] indicate, the health professional profile tends to be composed of a higher population of women than in other professions, just as in the field of engineering, in which a higher presence of males is observed [15].

Considering their level of education, 1.48% had a basic education, as compared to 4.86% who had a PhD degree (see Figure 1).

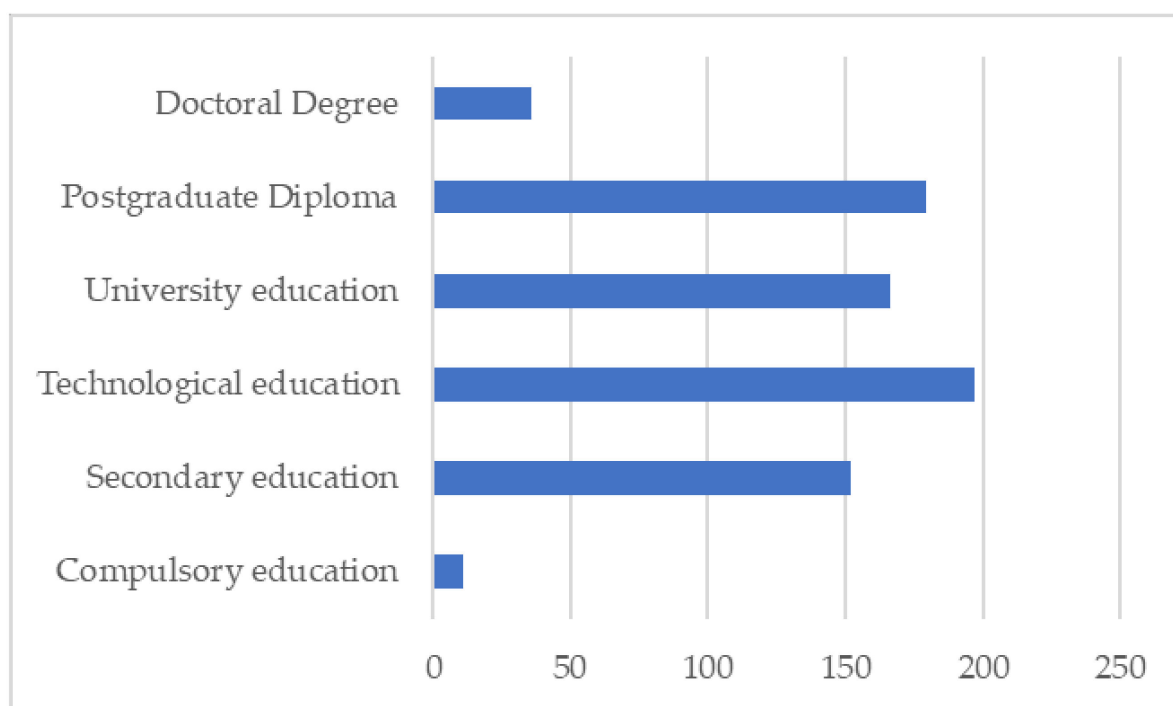


Figure 1. Sample distribution according to level of education.

As for their marital status, 36.84% were married or with a partner, and 2.97% were widowed (see Figure 2).

Lastly, with respect to the work position performed in the hospital centers, 33.34% were administrative staff, 24.56% were nurses, 17.54% were doctors, 16.60% paramedics, and 7.96% performed other work in the health centers.

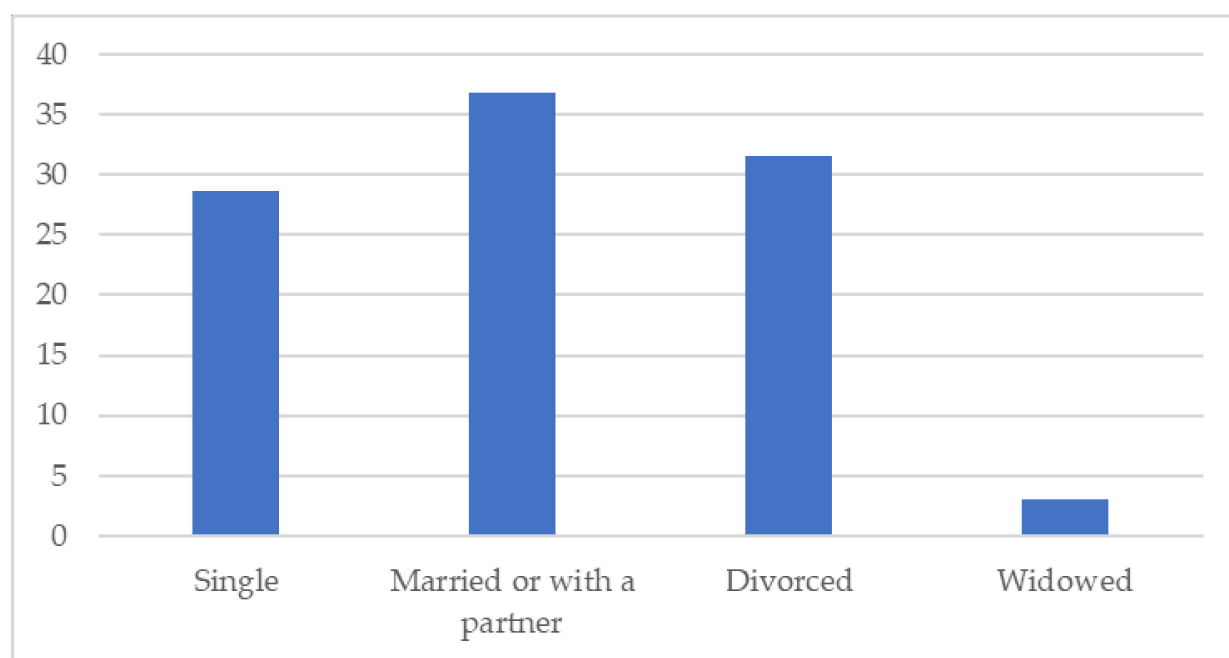


Figure 2. Marital status.

3.2. Descriptive Statistics

Based on the dimensions determined by the EFA, a descriptive study was performed to observe the behavior of the participants, and to initially describe their viewpoint with respect to the matters in question. Thus, in first place, the results related to the descriptive study of the 18 items that ultimately shaped the instrument are presented (mean, standard deviation, kurtosis, and skewness) (see Table 2).

Table 2. Descriptive study of the dimensions.

		Dimension 1	Dimension 2	Dimension 3	Dimension 4
N	Valid	741	741	741	741
	M.	17.3050	11.6518	15.1309	17.8704
	SD	2.51672	2.10539	2.05344	2.69021
	Skewness	−0.160	−0.259	−0.493	−0.297
	Standard error of skewness	0.090	0.090	0.090	0.090
	Kurtosis	−0.166	−0.091	−0.010	−0.042
	Standard error of kurtosis	0.179	0.179	0.179	0.179

Considering each of the dimensions, with respect to dimension 1, the participants were generally in agreement. Nevertheless, item 5 was notable, as participants were not in agreement ($M = 2.99$; $SD = 0.984$), which infers that the situation created by COVID-19 generated some rejection towards their professional work. As for the second dimension, the participants considered to be more inclined towards disagreement with respect to their salary, which did not change during the COVID-19 pandemic ($M = 1.18$; $SD = 0.527$), just as they did not believe they experienced any conflictive situations with their colleagues, an aspect that was repeated in the third dimension ($M = 3.92$; $SD = 0.930$), or with their supervisors (dimension 4) ($M = 3.84$; $SD = 1.156$). Given these results, the rejection of Hypothesis 1 (Health center staff experienced situations of stress and anxiety during the

COVID-19 crisis) should be interpreted with caution. Rather than concluding that staff did not experience stress and anxiety, the findings suggest that the evidence for generalized stress across the full sample was not sufficiently strong in the indicators analyzed. A more precise interpretation is that diminished work enjoyment was evident; whereas, the hypothesis of generalized stress was not consistently supported by the descriptive statistics available.

3.3. Inferential Study

Considering the gender of the participants, a Student's *T* test ($n.s. = 0.005$) was performed, which showed significant differences only in dimension 1, specifically in item 3 (see Table 3), indicating that women experienced conflicts with their colleagues when performing their work during the period of confinement. More specifically, these difficulties referred to their superiors and a lack of recognition of their professional work. Thus, Hypothesis 2 (Male staff of the health centers perceived situations of conflict in the performance of their work) must be rejected.

Table 3. Student's *T* test considering gender.

	Gender	N	M.	S.D.	F.	<i>p</i>	Cohen's <i>d</i>
Item 3	Male	208	3.69	1.220	4.080	0.04	0.01
	Female	533	3.78	1.106			

The ANOVA test, considering age, only showed significant differences in item 1 [$F(4736) = T = 4.267, p = 0.002, \eta^2 = 0.023$], indicating that the younger professionals (aged between 18 and 24 years old) verified the existence of conflicts with their supervisors during the health crisis, as compared to their peers older than 55 years old [$t(736) = T = 3.604, p = 0.003$]. Thus, Hypothesis 3 (Younger staff in health centers perceived situations of conflict the performance of their work) must be initially accepted.

When using the level of education as the selection variable, no significant differences were found, so Hypothesis 4 (Staff with a higher level of education in the health centers perceived situations of conflict the performance of their work) must be rejected in line with the suggest of Ferrando, Garay, Andrade-Gómez, Suarez-Serrano, and Marcén-Román [18]. As for the work position performed, just as in the previous case, no divergences were found, so Hypotheses 5 (The job position does not determine the perception of conflict situations in the performance of one's work) can be accepted [18].

Lastly, when using marital status as the selection variable, only one difference was found in item 11 (My colleagues tried to cheer me up), in that widowed participants [$F(4736) = T = 3.257, p = 0.021, \eta^2 = 0.013$] considered it more than single [$t(736) = 3.10, p = 0.012$] and married or partnered participants [$t(736) = 2.7, p = 0.036$]. Therefore, it can be concluded that the hypothesis set forth must be accepted, as only one divergence was found between the members of the sample [18].

3.4. Correlational Study

Considering the dimensions generated by the EFA performed, the results from the correlational study are presented below. As shown in Table 4, the items showed a substantial independence between factors: dimension 1 with dimension 2, which showed a very small negative correlation ($r = -0.082, p = 0.026$); and dimension 2 with dimension 4, which showed a small negative correlation ($r = -0.100, p = 0.006$). The remaining correlations did not show statistical significance ($r \leq 0.045, p \geq 0.219$). After the Bonferroni correction ($\alpha = 0.0083$), only the association between dimension 2 and dimension 4 remained signif-

icant. In every case, the effect sizes were small ($r^2 \leq 1\%$), so that the practical relevance of these associations is limited. In addition, it must be noted that leadership/supervision and support among colleagues/operational stability did not show relevant associations in these data.

Table 4. Correlational study.

		Dimension 1	Dimension 2	Dimension 3	Dimension 4
Dimension 1	R	1			
	P				
Dimension 2	R	−0.082 *	1		
	P	0.026			
Dimension 3	R	−0.025	0.018	1	
	P	0.497	0.618		
Dimension 4	R	−0.045	−0.100 **	0.026	1
	P	0.219	0.006	0.487	

* The correlation is significant at 0.05 (two-tailed). ** The correlation is significant at 0.01 (two-tailed).

The only significant correlation observed was between dimension 2 and dimension 4, as indicated, which leads us to think that certain organizational changes/interpersonal calm could be slightly associated with a lower perception of supervisor dynamic/sustainable achievements (or vice versa).

4. Discussion

The results from the present study allow us to delve into the understanding of supportive leadership, psychological capital, and labor relations in the health context during the crisis generated by COVID-19 in Greece. In first place, the descriptive analysis showed that most of the professionals manifested a moderately positive perception of the dimensions related with leadership, work well-being, and supervisor dynamics [19,20], as opposed to the results obtained by [21].

It is important to point out that some critical aspects clearly emerged. In particular, the fact that the professionals did not fully enjoy their work during the crisis indicates an emotional exhaustion that was expected in the context of high healthcare pressure, as previous studies have shown in similar contexts [20,21]. This finding coincides with the studies by [22–24], which pointed out that stress, overload, and uncertainty inherent in pandemic periods tend to decrease work enjoyment, even when relatively functional leadership exists.

Focusing on the sociodemographic variables, the results obtained showed significant differences considering gender only in dimension 1, specifically in the item related with the organization of work by superiors. Women manifested more conflict and less professional recognition than their male peers [25]. This result suggests the persistence of gender inequalities in job recognition within the healthcare sector, a problem that has already been documented in previous studies that pointed out that women tend to experience more pressure and less visibility in their professional roles [25–27]. In addition, the analysis according to age revealed that the younger professionals perceived a higher level of conflict with their supervisors, which may be due to their lack of experience and less consolidation of the internal dynamics of the health system, which increases their vulnerability in crisis situations. However, in other aspects, age was not a determinant factor in the performance of their professional work [19]. On the other hand, variables such as the level of education or job position did not show significant differences, which indicates that the perception

of leadership and the work environment was relatively homogeneous throughout the different professional profiles within the hospital centers analyzed [19].

Aspects such as the well-being with their superiors, the organizational changes, and the supervisor dynamics worked as relatively independent constructs within the work experience of the healthcare personnel during the pandemic [28,29]. On the other hand, sufficient empirical evidence was observed to support the hypothesis that there is a strong interrelationship between supportive leadership, psychological capital, and peer relations, as opposed to other studies [30,31]. On the contrary, the results point to the existence of multiple factors that have a differentiated influence on how professionals perceive their work environment [30,31].

Likewise, it is important to underline that the only correlation that remained significant after the application of a correction by multiple comparisons was dimension 2 with dimension 4. This result suggests that the organizational changes and interpersonal calm may be lightly associated with the perception of the supervisor dynamic and achievement of objectives. However, given the small magnitude of this association, its interpretation must be made with caution. Rather than a structural relationship between constructs, it could reflect one-time perceptions related to the way in which specific teams faced the internal reorganization during the healthcare emergency.

5. Conclusions

The impact of supportive leadership and interpersonal climate could be mediated by other variables not included in this study, such as real workload, the availability of resources, the perception of safety, or even personal characteristics of resilience and stress tolerance. Likewise, the performance of a longitudinal study would allow us to assess how these perceptions evolve once the most critical phase of the pandemic has been overcome.

Altogether, the findings show a complex panorama in which leadership, psychological capital, and interpersonal relations, do not act as a unique cohesive system, but as independent elements that can be strengthened or weakened depending on the organizational context and the individual experience of the professional. This knowledge is essential for the design of specific improvement interventions that will allow strengthening the well-being of healthcare personnel and the efficiency of the supervision structures in crisis situations.

6. Strengths, Limitations, and Projections for Future Research

The study presents several noteworthy strengths. First, it addresses a relevant and under-explored problem in a particularly sensitive context: the convergence of the COVID-19 health crisis and the economic crisis in Greece. Second, it incorporates a broad sample of healthcare professionals and combines descriptive, inferential, and correlational analyses, allowing for a relatively comprehensive approach to the phenomenon under study. Furthermore, the use of an ad hoc questionnaire with indicators of acceptable internal consistency provides a sufficient psychometric basis for interpreting the results with caution.

However, the study also exhibits significant limitations. The main one is the cross-sectional design, which prevents establishing causal relationships between the variables analyzed. In addition, the non-probability convenience sampling reduces the generalizability of the findings to the entire population of healthcare professionals. Another weakness lies in the self-reported nature of the data, which may introduce social desirability bias or subjective perception bias. Moreover, since the instrument is specific to this study, it would require further validation in other contexts and with other samples to solidify its robustness.

Looking ahead to future research, it would be advisable to develop longitudinal studies that analyze the evolution over time of perceived leadership, psychological capital, and workplace well-being. It would also be beneficial to incorporate comparative designs across hospitals, professional categories, and different sociocultural contexts to identify differential patterns. Including additional variables, such as workload, burnout, perceived organizational support, resilience, and team climate, which could act as mediators or moderators, would also be relevant. Finally, methodological triangulation combining questionnaires, interviews, and institutional analysis would enrich the understanding of the phenomenon and provide a more robust and contextualized perspective.

Author Contributions: Conceptualization, K.P. and V.M.; methodology, V.M. and M.J.N.-M.; formal analysis, V.M.; investigation, K.P.; data curation, V.M. and M.J.N.-M.; writing—original draft preparation, V.M. and M.J.N.-M.; writing—review and editing, K.P., V.M. and M.J.N.-M.; project administration, K.P. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: This study followed all procedures in accordance with the Ethical Principles and Code of Conduct of Psychologists and the Declaration of Helsinki guidelines on research involving human subjects. Formal ethics committee approval was not required for this study, as it involved anonymous questionnaires with no identifiable personal data.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available upon request to the corresponding author. The data are not publicly available due to ethical and privacy considerations related to safeguarding the confidentiality of participants, in accordance with the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (Standard 8.14) and as provided by Spanish data-protection legislation, the Organic Law on the Protection of Personal Data and Guarantee of Digital Rights (LOPDGDD).

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A

GENDER:

Female

Male

I prefer don't say

AGE

LEVEL OF EDUCATION

Doctoral Degree

Postgraduate Diploma

University Education

Technological education

Compulsory education

Secondary Education

MARITAL STATUS

Single

Married or with a partner

Divorced

Widowed

POSITION IN THE HOSPITAL CENTER:

The objective of this research study was to investigate the correlation between the psychological capital of supportive leadership and employee relationships.

Feel free to answer questions about your experience during the COVID-19 pandemic. There are no right or wrong answers.

A score of 1 means you strongly disagree with the statement, and a score of 5 means you strongly agree.

The data will not be publicly available due to ethical and privacy considerations related to safeguarding the confidentiality of minor participants, in accordance with the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (Standard 8.14) and as provided by Spanish data protection legislation, the Organic Law on the Protection of Personal Data and Guarantee of Digital Rights (LOPDGDD).

Thank you for your participation.

Mark the number that you feel right

Items	1	2	3	4	5
1. I had conflicts with my superiors.	1	2	3	4	5
2. I felt stressed.	1	2	3	4	5
3. My superiors organized the work well in the health unit.	1	2	3	4	5
4. My superiors knew how to value me as a professional.	1	2	3	4	5
5. I enjoyed my work during the health crisis.	1	2	3	4	5
6. There was a change in salary.	1	2	3	4	5
7. The supervisor placed great importance on performance and people.	1	2	3	4	5
8. I had conflicts with my colleagues.	1	2	3	4	5
9. I remained calm at all times.	1	2	3	4	5
10. The number of people visiting private hospitals has decreased.	1	2	3	4	5
11. My colleagues tried to cheer me up.	1	2	3	4	5
12. I have tried to avoid problematic situations at work with my colleagues.	1	2	3	4	5
13. Regular maintenance was performed on the machinery.	1	2	3	4	5
14. I had conflicts with a supervisor.	1	2	3	4	5
15. I achieved my goals.	1	2	3	4	5
16. My supervisor encouraged me.	1	2	3	4	5
17. Health spending has decreased.	1	2	3	4	5
18. The quality of service was consistent.	1	2	3	4	5

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