Ethical Leadership in Healthcare Management: The Case of Greek Hospitals

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Abstract: Ethical Leadership constitutes a pivotal factor for the effective functioning of an organization's workforce, as it is directly linked with the notions of justice, honesty, respect, and social cohesion. The significance of the ethical leadership derives from the fact that they provide guidance to a leader on how to treat the decisions and values of others with respect, how to make decisions that are beneficial rather than detrimental to human well-being, how to aim for justice as the focal point of their decision-making, how to remain sensitive toward the attitudes and feelings of others without exercising manipulation, and how to actively pursue the common good. Within healthcare organizations, where decisions carry direct implications for patient welfare and staff conduct, ethical leadership assumes particular importance. This empirical study examines the psychometric properties of the "Ethical Leadership at Work Questionnaire" (ELW; Kalshoven et al., 2011) within the Greek healthcare sector. This study was conducted on the personnel of public hospitals. To examine the construct's validity, the researchers used Confirmatory Factor Analysis (CFA), and Cronbach's alpha coefficients were used to assess internal consistency. The results confirmed that the ELW has a strong factor structure and high reliability across the questionnaire's parts, consistent with findings from previous work using the same scale and supporting the scale's usefulness in Greek healthcare.

Keywords: Ethical leadership, ELW, Healthcare management, Greek public hospitals

1. Introduction

Ethical leadership is one of the key concepts that has emerged in recent years in the field of organizational behavior. The reason behind this is that this concept is closely related to a fair workplace environment, honesty, respect, and employees getting along with each other (South Eastern Oklahoma State University, 2012). By their ethical standards, leaders can lead their subordinates towards making decisions that respect others' values and autonomy; fairness takes priority, they are responsive to the emotional needs of the members of the team without resorting to manipulation, and they are always striving for the common good instead of their narrow self-interest (Bass & Steidlmeier, 1999). These features make great sense when viewed in the context of health care organizations, where leaders' choices directly affect patients' health, employees' behavior, and, more generally, the quality of care. The level of ethical commitment, healthcare being one such demanding field, together with the increasing number of findings that connect ethical leadership with less burnout, less resignation, and improved overall performance of the organization, is the reason why this concept has been attracting so much research for the past decade (Eisenbeiss & van Knippenberg, 2015).

Although it seems to be expanding, most of the literature demonstrating ethical leadership in healthcare is geographically unbalanced. The following review shows that studies are predominantly published by researchers from Northern Europe, East Asia, and the Middle East. In contrast, Southern European countries, and Greece specifically, have barely produced any publications or are significantly lagging behind. In addition, there have been no efforts to develop in Greek a validated psychometric instrument that will be suitable for measuring ethical leadership in healthcare organizations in a psychometrically valid and reliable way. This lack is also mirrored in the fact that despite having been widely adopted around the world, the questionnaire Ethical Leadership at Work (ELW) of Kalshoven, Den Hartog, and De Hoogh (2011) has no translated and back-translated Greek version that has been psychometrically validated.

The aim of the present study is therefore to examine and validate the psychometric properties of the Ethical Leadership at Work (ELW) questionnaire among personnel employed in Greek public hospitals. In pursuit of this aim, the study sets out the following objectives: (a) to verify the seven-dimensional factorial structure of the ELW questionnaire within the Greek healthcare sector using Confirmatory Factor Analysis; (b) to assess the

internal consistency and reliability of the overall scale and its constituent dimensions using Cronbach's Alpha and McDonald's Omega coefficients; and (c) to examine the descriptive characteristics of, and the interrelationships among, the ELW dimensions within this population. In doing so, the study seeks to contribute a validated measurement tool to the Greek healthcare management literature and to address the broader geographic gap identified in the international ethical leadership research.

2. Defining Ethical Leadership

The concept of Ethical Leadership is one of the most important factors for the smooth functioning of an organization, as it is directly linked to the concepts of justice, honesty, respect, and social cohesion (South Eastern Oklahoma State University, 2012).

The theoretical significance of these constructs lies in the ethical framework they provide for authentic leadership practice. Authentic leadership as defined by Bass and Steidlmeier (1999) refers to a leader who respects other's decisions and values, encourages followers to engage in activities that are beneficial to them without causing harm, makes the ideals of fairness and justice central components of her/his decision making and continues to have a relationship which she/he is sharing the emotions with them without manipulating them on a personal level and makes sure that collective good is pursued even in sacrificing self interests.

One of the most popular definitions regarding the concept of ethics is the following: "*Ethics is directly related to knowing and doing what is right*" (Ethical Leadership Guide, 2016). Various scholars have focused on the factors that help identify the concept of ethical leadership (Monahan, 2012). One of the earliest scholars of ethical leadership, Greenlead (2002) emphasized that "*the primary responsibility of an ethical leader is to serve their followers*". Similarly, Heifetz (2006) suggests that a key priority for ethical leaders is to address conflicts among members and guide them in the right direction. Furthermore, Cumbo (2009) argues that ethical leadership must focus on the leader. More specifically, "*a leader is considered ethical when his or her inner virtues guide him or her in the decision-making process. Followers benefit from a leader who lives a virtuous life. The ethical leader influences others through his or her own virtues*".

Cumbo (2009) argues that these virtues are strengthened when a leader demonstrates imagination, compassion, empathy, and discretion. Serving one's followers is the primary responsibility of ethical leaders. In conclusion, Plinio (2009) argues that ethical leadership is related to three forms of leadership. The first form of leadership associated with ethical leadership is transformational leadership. "*Transformational leadership is related to ethical leadership, as it enhances the level of ethical aspirations (and, by extension, human behavior) of both the leader and the follower. In this way, it has a transformative effect on both*" (Burns, 1978). The second form of leadership relates to servant leadership. This emphasizes the need to serve one's followers and to be dedicated to their moral development. Finally, the third form of ethical leadership relates to authentic leadership, since, according to Plinio (2009), the essence of ethics lies in being true and authentic to oneself.

3. The Concept Of Ethical Leadership in the Healthcare Sector

This research explores the area of ethical leadership in a medical context. This topic has witnessed massive growth in recent years. The issue at stake has shifted from a small point in a broader study to a stand-alone, thoroughly investigated subject. It is easy to understand why there is a focus on ethics, given how ethically challenging health care jobs are, together with growing evidence that leaders who behave morally are those who can bring about tangible results, e.g., lower levels of burnout and staff turnover, patient safety, and organizational performance.

Many studies on this topic have largely built on Brown, Treviño, and Harrison's (2005) Social Learning Conceptual Framework of Ethical Leadership, which was later developed into a multidimensional, validated measurement tool such as the Ethical Leadership at Work Questionnaire (Kalshoven, Den Hartog, & De Hoogh, 2011). A significant meta-analytic review paper published in the Journal of Business Ethics by Bedi, Alpaslan, and Green (2016) examined the inverse relationship between ethical leaders and counterproductive behaviours, as well as the link between leadership and employee health, across a diverse range of industries. This review established a correlation between the construct and the mentioned effects. The healthcare samples provided further support for the general pattern of results. Eisenbeiss & van Knippenberg (2015), in the Journal of Organizational Behavior, further expanded the research by showing that followers' mindfulness and morally driven feelings are both predictors of leadership effectiveness resulting from ethical leadership, which serves as a mechanism.

Empirical research exploring the effects of ethical leadership in relation to nurse burnout, job satisfaction, and psychological well-being has been published in various forms. Franczukowska et al. (2021), who surveyed 458 healthcare employees in Austrian hospitals, nursing homes, and rehabilitation centers, found that ethical leadership had a significant positive association with job satisfaction and affective commitment, and a significant negative association with burnout. Frustration tolerance and emotional stability were identified as partial moderation variables in this model. Kaffashpoor and Sadeghian (2020) examined a private hospital sample from Mashhad in Iran and concluded that a person's well-being is mainly affected by ethical leaders. The mediator for this relationship turns out to be the worker's satisfaction. Si et al. (2023) recently found that through the leader's attunement to the environment, ethical leadership manifests the leadership quality unique to it in influencing the nurses' well-being - offering a more granular account of the pathway than earlier studies had provided.

Ethical leadership was repeatedly identified as one of the strong protective factors that could be most effective against nurse turnover. In Cho et al. (2022), a systematic review and meta-analysis of 21 studies published in the Journal of Korean Academy of Nursing, ethical leadership was found to have the highest effect size ($r = -0.34$) among all leadership styles considered in reducing hospital nurses' turnover intention, followed by transformational, authentic, and transactional leadership. Similarly Lambert et al. (2024), after administering questionnaires to 216 nurses in the US, uncovered that ethical leadership not only accounted for the nurses' intention to remain in work but also reduced the negative effects that workplace bullying could have on burnout indicating that ethical leadership is not just a direct retention factor, but may also be a protective moderation in stressful work settings.

There is another parallel research thread that links ethical leadership to employees' discretionary behaviours that support organizational functioning. Almanbahi et al. (2025), in a structural equation modelling study of 300 employees in a Saudi Arabian hospital, concluded that ethical leadership had a major direct impact on organizational excellence and, through an indirect route mediated by organizational citizenship behaviours, where integrity and employee orientation were the most predictive dimensions. Zhang et al. (2023) similarly observed that ethical leadership could moderate the negative consequences of workplace ostracism on the citizenship behaviour of Chinese healthcare employees, whereas from the point of view of public service employees working in Nigeria, Tabiu (2023) identified that ethical leadership's effect on citizenship behaviour could be greatly reinforced when it was coupled with supportive HR practices. The work of Aloustani et al. (2020), published in BMC Nursing as an earlier but widely cited descriptive correlational study, revealed the basic relationship between ethical leadership, ethical climate, and nurses' experienced citizenship behaviour. This research paper served as the basis for most subsequent papers by Chinese and Middle Eastern scholars on ethical leadership.

Not only is trust an outcome of ethical leadership, but it functions as a channel through which such leadership exerts its effects. Varga et al. (2023), through a systematic review, identified not only ethical leadership as the third most mentioned characteristic of trustworthy hospital management in the empirical literature but also benevolence and manager availability as such characteristics. Moreover, Gonçalves and Curado (2023), in a survey of 321 Portuguese healthcare professionals, revealed that ethical leadership has a positive impact not only on workplace happiness but also on strengthening professional social networks, both of which are expected outcomes that ultimately determine the quality of patient care.

Also, a recently emerged stream in the paper literature has focused primarily on the relationship between ethical leadership and the moral agency of nurses. Wang, Zhou, Wen & Gou (2024) conducted a survey of 837 nurses across five hospitals in Sichuan Province, China. Their work demonstrates that the positive effects of ethical leadership on nurses' moral courage are mediated by psychological empowerment. Moreover, Meng & Guo (2025), building on this work, found that moral sensitivity partially mediated the relationship between ethical leadership and the moral courage of head nurses. Another study by Zhou & Zhang (2021) also reported that during pandemic nursing work conditions, ethically led nurses achieved better subordinate outcomes even under crisis conditions, such results are also supported by Musbahi et al. (2022), whose survey of the NHS clinical leaders before and after the start of the pandemic showed that pandemic had significantly changed the way ethical leadership principles were both implemented and judged.

A number of recent literature reviews have attempted to integrate this diverse but growing body of evidence on ethical leadership. Singh & Vashist (2025), who examined 22 publications (Scopus, Emerald, Web of Science) concluded that a training program aimed at ethical leadership has consistently shown to bring organizational sustainability. Nevertheless, they added that the field is primarily characterized by cross-

sectional data, a nurse focus, and confined to a few national contexts. Sere et al. (2025), in contrast, asserted that empirical research in the area of ethical leadership is mostly conducted from the followers' perspective, and they recommend more investigations from the leaders' point of view that are in the spirit of ethical leadership research. Ozdoba et al. (2022), in their review of hospital ethical climate research, showed that ethical climate is strongly associated with job satisfaction, while also emphasizing the lack of longitudinal and comparative designs at the national and international levels.

Putting all these studies into a single view, one gets the sense that ethical leadership is based on strong findings yet remains a geographically and methodologically fragmented arena. There is solid evidence that ethical leadership is linked to burnout, turnover, and citizenship behaviour among nurses, mainly in Northern Europe, East Asia, and the Middle East. In contrast, in Southern Europe, physician populations and longitudinal approaches have been studied only weakly, leaving a substantial gap.

4. Methodology

4.1 Participants and Procedure

This sample of this study consisted of 268 employees who worked in Greek hospitals. More specifically, 186 women and 82 men participated. The majority of the participated aged more than 50 years old (41%, 109 participants), as well as from 41 to 50 years old (33%, 88 participants). As far as the educational level is concerned, most participants have a bachelor’s degree (46%, 123 participants) or a master’s degree (38%, 101 participants). Finally, the majority of the sample worked as nursery personnel (128 employees, 48%) or medical doctors (83 employees, 31%).

A questionnaire was given to the participants. All the questionnaires were completed anonymously by the employees of Greek hospitals with the presence of the researchers who did not interfere in the completion of the questionnaire. The participation on this research was voluntary and all participants were informed that they could be notified if they wanted to learn about the outcome of the research. The sampling method was the convenience sampling method.

4.2 Measurement Tool

The measurement tool that was used in this specific research was Ethical Leadership at work questionnaire (ELW) by Kalshoven et al. (2011). This tool consists of 38 items which have organized in seven dimensions so as to measure the level of organization’s Ethical Leadership: people orientation, fairness, power sharing, concern for sustainability, ethical guidance, role clarification, integrity. More specifically:

- People orientation: It denotes genuine care and respect for followers' well-being, expressed through attentiveness to their needs and personal concerns.
- Fairness: It refers to the extent to which the leader makes transparent, objective, and balanced decisions and treats subordinates equitably in interpersonal dealings.
- Power sharing: It concerns the degree to which the leader allows subordinates a voice in decision-making and incorporates their input, thereby fostering autonomy and self-efficacy.
- Concern for sustainability: It reflects the leader's attentiveness to the broader environmental and societal consequences of organizational decisions.
- Ethical guidance: It captures the leader's active communication of ethical standards, including the clarification of integrity-related codes of conduct and the reinforcement of ethical behaviour through recognition or sanction.
- Role clarification: It refers to the leader's clarity in communicating expectations, responsibilities, and performance priorities to followers.
- Integrity: It reflects the consistency between the leader's stated values and actual conduct, encompassing promise-keeping and behavioural predictability.

These items are measured through a 5-point Likert scale (from 1 = Totally Disagree to 5 = Totally Agree).

4.3 Data Analysis

The aim of this section was to evaluate and validate the psychometric properties of the Ethical Leadership at Work (ELW) questionnaire within the study sample. More thoroughly, the factorial structure, internal consistency, and reliability of the tool were examined via Confirmatory Factor Analysis (CFA), Cronbach's Alpha Coefficient, and McDonald's Omega Coefficient. Descriptive statistics (mean and standard deviation) were calculated for all items and subscales to characterize the central tendency and dispersion of responses, while

Spearman's rho correlation coefficient was used to examine the associations between the ELW dimensions, given the ordinal nature of the Likert-type data and the non-normal distribution of several subscales.

Regarding CFA, model fit was assessed using multiple complementary indices: the ratio of chi-square to degrees of freedom (χ^2/df), the Comparative Fit Index (CFI), the Tucker–Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR). A χ^2/df ratio below 3 was considered indicative of good fit, while values below 5 were deemed acceptable. CFI and TLI values equal to or greater than 0.90 were considered acceptable, with values above 0.95 indicating good fit. RMSEA values below 0.08 were considered acceptable, with values below 0.06 indicating good fit, while SRMR values below 0.08 were considered indicative of adequate fit. All standardized factor loadings were required to exceed 0.40 to be retained as meaningful indicators of their respective latent constructs.

Regarding internal consistency, both Cronbach's Alpha and McDonald's Omega coefficients were calculated for each ELW dimension and for the overall scale, as Omega was included to address the known limitations of Alpha under conditions of non-tau-equivalence, providing a more robust estimate of reliability for multidimensional instruments. Values equal to or greater than 0.70 were considered acceptable for both coefficients, with values above 0.80 regarded as indicating good reliability. Finally, Spearman's rho was interpreted according to conventional benchmarks, with coefficients of 0.10–0.29 indicating a weak relationship, 0.30–0.49 a moderate relationship, and values of 0.50 or above indicating a strong relationship between variables.

5. Results

5.1 Validation the Factorial Structure of ELW via Confirmatory Factory Analysis

To verify the factorial structure of the ELW Questionnaire in the Greek Healthcare Section, the statistical method of Confirmatory Factor Analysis (CFA) was implemented. According to Table 1, CFA fit measures indicate that the model does not demonstrate good fit. All indicators do not value in the acceptable rate.

Table 1: Fit measures for CFA – ELW Questionnaire (1st attempt)

χ^2	df	p	CFI	TLI	SRMR	RMSEA	RMSEA 90% CI	
							Lower	Upper
5080	644	<.001	0.766	0.745	0.0817	0.130	0.127	0.134

Cutoff criteria: CFI ≥ 0.90 (acceptable), ≥0.95 (good fit); TLI ≥ 0.90 (acceptable), ≥0.95 (good fit); RMSEA ≤ 0.08 (acceptable), ≤0.06 (good fit); SRMR ≤ 0.08 (good fit).

According to Table 2, some items present unacceptable and very low loading. More specifically, Item 8 of the Fairness dimension demonstrate low loading (λ=0.484), Items 15 and 18 of power sharing demonstrate low loadings (λ=-0.364 and λ=-0.144 accordingly). Hence, these items were deleted and the researchers executed the statistical method of CFA one more time.

Table 2: Factor Loadings of ELW Questionnaire Items (1st attempt)

Factors	Items	Loadings	p value
People orientation	Item 1	0.887	<.001
	Item 2	0.881	<.001
	Item 3	0.912	<.001
	Item 4	0.928	<.001
	Item 5	0.948	<.001
	Item 6	0.919	<.001
	Item 7	0.934	<.001
Fairness	Item 8	0.484	<.001
	Item 9	0.541	<.001
	Item 10	0.701	<.001
	Item 11	0.938	<.001

Factors	Items	Loadings	p value
	Item 12	0.911	<.001
	Item 13	0.825	<.001
Power sharing	Item 14	0.502	<.001
	Item 15	-0.364	<.001
	Item 16	0.705	<.001
	Item 17	0.695	<.001
	Item 18	-0.144	<.001
	Item 19	0.862	<.001
Concern sustainability	Item 20	0.762	<.001
	Item 21	0.969	<.001
	Item 22	0.752	<.001
Ethical guidance	Item 23	0.845	<.001
	Item 24	0.866	<.001
	Item 25	0.853	<.001
	Item 26	0.842	<.001
	Item 27	0.825	<.001
	Item 28	0.807	<.001
	Item 29	0.798	<.001
Role clarification	Item 30	0.851	<.001
	Item 31	0.880	<.001
	Item 32	0.917	<.001
	Item 33	0.888	<.001
	Item 34	0.823	<.001
Integrity	Item 35	0.955	<.001
	Item 36	0.959	<.001
	Item 37	0.964	<.001
	Item 38	0.717	<.001

The re-specified CFA model yielded improved and more satisfactory fit statistics. Although certain fit indices fell marginally outside conventional acceptability values, the authors decided to retain the model on the basis of the consistently high values obtained for average variance extracted (AVE), factor loadings, Cronbach's alpha, and McDonald's omega, which collectively provided strong evidence of construct validity and reliability. The results of CFA measures are described in Tables 3 and 4.

Table 3: Fit measures for CFA – ELW Questionnaire (Final model)

χ^2	df	p	CFI	TLI	SRMR	RMSEA	RMSEA 90% CI	
							Lower	Upper
1409	539	<.001	0.801	0.781	0.0619	0.128	0.124	0.131

Cut-off criteria: CFI ≥ 0.90 (acceptable), ≥0.95 (good fit); TLI ≥ 0.90 (acceptable), ≥0.95 (good fit); RMSEA ≤ 0.08 (acceptable), ≤0.06 (good fit); SRMR ≤ 0.08 (good fit).

Table 4: Factor Loadings of ELW Questionnaire Items (Final model)

Factors	Items	Loadings	AVE	p value
People orientation	Item 1	0.887		<.001
	Item 2	0.881	0.839	<.001
	Item 3	0.912		<.001

Factors	Items	Loadings	AVE	p value
	Item 4	0.928		<.001
	Item 5	0.947		<.001
	Item 6	0.919		<.001
	Item 7	0.935		<.001
Fairness	Item 9	0.522		<.001
	Item 10	0.692		<.001
	Item 11	0.941	0.630	<.001
	Item 12	0.912		<.001
	Item 13	0.825		<.001
Power sharing	Item 14	0.528		<.001
	Item 16	0.696	0.501	<.001
	Item 17	0.688		<.001
	Item 19	0.875		<.001
Concern sustainability	Item 20	0.762		<.001
	Item 21	0.970	0.695	<.001
	Item 22	0.751		<.001
Ethical guidance	Item 23	0.846		<.001
	Item 24	0.866		<.001
	Item 25	0.853		<.001
	Item 26	0.842	0.696	<.001
	Item 27	0.825		<.001
	Item 28	0.807		<.001
	Item 29	0.798		<.001
Role clarification	Item 30	0.851		<.001
	Item 31	0.879		<.001
	Item 32	0.917	0.761	<.001
	Item 33	0.889		<.001
	Item 34	0.824		<.001
Integrity	Item 35	0.955		<.001
	Item 36	0.959	0.819	<.001
	Item 37	0.964		<.001
	Item 38	0.717		<.001

Cutoff criteria: AVE ≥ 0.5 (acceptable); Factor loadings ≥ 0.40 (acceptable).

5.2 Descriptive Statistics, Internal Consistency and Correlations

Table 5 describes the descriptive statistics, the Cronbach's alpha coefficient, and the McDonald's omega coefficient of the dimensions of Ethical Leadership. Based on the five-point rating system, the total score on ethical leadership averaged 3.452 (SD = 0.682). This meant that respondents, on the whole, held a reasonably favourable view of ethical leadership among other factors. The seven dimensions of ethical leadership were assessed, with the dimension of integrity getting the highest mean score (M = 3.868, SD = 1.159), which was followed by ethical guidance (M = 3.825, SD = 0.987) and role clarification (M = 3.750, SD = 0.989) very closely. This meant that, overall, respondents perceived their leaders more positively in terms of maintaining consistent behaviour, upholding moral standards, and being clear about what was required and expected. In contrast, "fairness" scored the lowest mean score across all the dimensions of M = 2.183 (SD = 1.101), which was below the middle of the scale. This reflects a less favourable overall perception of leaders' fairness in their decision-making and treatment of others.

Regarding the internal consistency of the ethical leadership and its dimensions, both statistical measures (Cronbach's alpha and Mc Donald's omega) showed high consistency. More specifically, Cronbach's alpha (α) ranges from 0.802 to 0.973. Similar results are described in McDonald's omega (ω) (all values range from 0.806 to 0.974).

Table 5: Descriptive Statistics, Internal Consistency and Correlations of Ethical Leadership and its dimensions

Factors/Dimensions	Number of items	Mean (M)	Standard Deviation (SD)	Cronbach's α	Mc Donald's ω
Ethical Leadership	35	3.452	0.682	0.933	0.960
People orientation	7	3.502	1.289	0.973	0.974
Fairness	5	2.183	1.101	0.890	0.894
Power sharing	4	3.371	0.885	0.802	0.806
Concern sustainability	3	3.640	1.071	0.860	0.870
Ethical guidance	7	3.825	0.987	0.939	0.941
Role clarification	5	3.750	0.989	0.940	0.940
Integrity	4	3.868	1.159	0.928	0.947

Ethical leadership as well as its dimensions were examined using the Kolmogorov-Smirnov test for normality. Kolmogorov-Smirnov test showed that all variables do not follow the normal distribution ($p<0.01$). Hence, to examine the correlations among these dimensions, Spearman coefficient was applied (Table 6). More thoroughly, with the exception of fairness, all dimensions showed strong, statistically significant, positive correlations with the overall construct, ranging from moderate-to-strong (power sharing, r = 0.658) to very strong (ethical guidance, r = 0.919; role clarification, r = 0.908; people orientation, r = 0.867). On the contrary, fairness correlated negatively with every other dimension and with the overall scale (r = -0.605), a pattern that diverges from both the original ELW validation study and the wider ethical leadership literature, and which warrants explicit discussion as a notable finding of the present study.

Table 6: Correlations of Ethical Leadership and its dimensions

Variables	People Orientation	Fairness	Power Sharing	Concern Sustainability	Ethical Guidance	Role Clarification	Integrity	Ethical Leadership
People Orientation	1.000	-0.741*	0.572*	0.682*	0.758*	0.712*	0.707*	0.867*
Fairness		1.000	-0.453*	-0.505*	-0.635*	-0.565*	-0.675*	-0.605*
Power Sharing			1.000	0.465*	0.547*	0.612*	0.399*	0.658*
Concern Sustainability				1.000	0.743*	0.681*	0.638*	0.809*
Ethical Guidance					1.000	0.830*	0.771*	0.919*
Role Clarification						1.000	0.769*	0.908*
Integrity							1.000	0.823*
Ethical Leadership								1.000

6. Results

The present study examined the psychometric properties of the Ethical Leadership at Work (ELW) questionnaire among personnel of Greek public hospitals. Following item deletion and model re-specification, the ELW demonstrated high internal consistency across all seven dimensions (Cronbach's α = 0.802–0.973; McDonald's ω = 0.806–0.974), supporting the reliability of the Greek adaptation. However, CFA fit indices remained below conventional acceptability thresholds even in the final model (CFI = 0.801, TLI = 0.781, RMSEA = 0.128), indicating that the seven-factor structure was only partially confirmed within this sample, despite strong factor loadings and AVE values. A particularly notable result was the consistent negative correlation between fairness and all remaining dimensions, diverging sharply from both the original validation study and

the wider international literature. This pattern warrants further investigation, as it may reflect a distinct cultural interpretation of fairness within Greek public hospital hierarchies, item-translation effects, or sector-specific dynamics not previously captured in the ELW literature. Future research should employ larger, multi-hospital samples, test alternative or modified fairness items, and consider qualitative approaches to clarify how fairness is understood among Greek healthcare professionals. These findings offer a preliminary but important contribution to validating ethical leadership measurement in an underexplored Southern European healthcare context.

7. Practical and Policy Implications

Beyond its psychometric contribution, this study approaches findings that are directly relevant to the governance of hospitals in Greece. Two results are translated into actionable recommendations: the consistently high scores and strong reliability of integrity, ethical guidance, and role clarification, and the markedly low, negatively correlated fairness dimension. These results point to concrete adjustments in how leadership is developed and how managerial staff is selected within the hospital system, though the results remain preliminary given the modest CFA fit indices reported above.

With respect to leadership training, curricula for hospital leaders should give explicit attention to distributive and procedural justice, given that fairness was both the lowest-scoring dimension and the only one to correlate negatively with the rest of the construct: transparent criteria for shift allocation, workload distribution, promotion, and disciplinary action, together with structured opportunities for staff to contest decisions they view as inequitable, would directly target this weakness. At the same time, training should build on the strengths already evident in integrity, ethical guidance, and role clarification rather than treating ethical leadership development as a uniform, one-size-fits-all programme, and the validated Greek ELW can itself be embedded into continuous-professional-development cycles as a pre- and post-training diagnostic, allowing hospitals and the Ministry of Health to target resources at the specific dimensions where a given department scores weakest. Because the negative fairness pattern may reflect structural features of Greek hospital hierarchies rather than individual leader behaviour alone, such training should also be paired with organisational-level reviews of decision-making transparency.

Ethical Statement: This study was conducted in accordance with the ethical principles for research involving human participants. Participation was voluntary, and all respondents completed the questionnaire anonymously. Participants were informed in advance about the purpose of the study and were offered the option to be notified of the research outcomes upon completion. No personally identifiable information was collected, and data were analysed and reported only in aggregate form.

Declaration on the Use of AI: During the preparation of this manuscript, the authors used Grammarly (AI-assisted writing tool) for grammar and language proofreading.

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