

Original Article



Should the Mandatory Health Referral System be Implemented in Türkiye? A Perspective from a Tertiary Pulmonology Hospital

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ABSTRACT

OBJECTIVE: Providing care at the appropriate level is key to cost-effective healthcare. In Türkiye, a mandatory referral system has not yet been implemented. This study aimed to determine the proportion of cases presented to a tertiary outpatient clinic that genuinely required tertiary-level care and to analyze their characteristics compared with those better suited for management at lower levels of care.

MATERIAL AND METHODS: This observational study included 692 patients (mean age: 54±15 years; 51% male) who attended two pulmonologists' outpatient clinics. Data on demographics, reasons for application, and all institutions to which individuals applied (primary, secondary, tertiary) for chest conditions within the previous 12 months were collected. After clinical evaluations, the appropriate level of care for each case was assessed.

RESULTS: Overall, 70.2% (n = 486) of cases bypassed primary care. While 10.7% (n = 74) required tertiary-level care, 66.3% (n = 459) required secondary-level care. Emergency departments (30%, n = 208) were visited more frequently than family physicians (29.6%, n = 205). Among cases seen in primary care, 11% were referred to higher-level care. The most common diagnoses were asthma and chronic obstructive pulmonary disease (56.8%; n = 394). While 46% (n = 318) of all cases received prescriptions or follow-up, 18.6% (n = 129) required interventions. Among the cases, 70.1% avoided non-teaching public hospitals, while 15% (n = 104) made more than 10 return visits to the study hospital.

CONCLUSION: Approximately 70% of cases presenting to a tertiary pulmonology center could have been managed at lower levels of care. Healthcare policymakers should urgently implement sustainable solutions to address the factors that impede the referral chain.

KEYWORDS: Healthcare, referral chain, overcrowding, burnout, tertiary hospital

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INTRODUCTION

The health system seeks to offer patients more effective, efficient, and equitable access to organized levels of care, classified as primary, secondary, and tertiary. This goal can be achieved through a referral system that directs patients to more specialized care when necessary.¹

In many developed countries, a "gatekeeper system" is used whereby residents first consult their family physicians for health issues and are referred to specialists for complex or unresolved cases, thereby avoiding unnecessary referrals to higher levels of care.^{2,3} Since patients have most of their health needs met in primary care institutions, their satisfaction increases.⁴ Furthermore, multiple referrals to health institutions are avoided; hospital and emergency visits decline; the use of limited resources and healthcare costs decrease; and high-quality care and treatment are provided.⁵⁻⁷

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The history of family medicine within the Turkish health system spans roughly four decades. In 1983, family medicine was officially recognized as a distinct field of medical education in the Medical Specialization Regulation. Specialization training in family medicine began in 1985, and by 1993, departments of family medicine were established within medical faculties. The organization for family medicine was founded in 1990 with the creation of the Turkish Family Physicians Specialist Association.⁸ Family medicine model was implemented as part of the Health Transformation Program, published in 2003, and introduced across Türkiye in 2010, with its legal and institutional framework gradually established. Family medicine has become a key part of the referral chain by initiating referrals.⁹

According to the latest health services statistics (2023) 28,054 family medicine units operating in Türkiye met approximately 99% of applications to primary health-care institutions and approximately 43% of applications to all health institutions. Although the number of family physician applications was around 417 million, the referral rate for family physician units remained very low, at 0.2%.¹⁰ Underutilization of the health referral system leads to severe patient overcrowding at secondary and tertiary care institutions. As a result, specialists are often overburdened by outpatient clinic services. Therefore, the extent to which the referral system is followed in tertiary care settings is frequently questioned. We aimed to discuss this issue based on the outcomes of a study in which we evaluated applications to the pulmonology outpatient clinics at a tertiary care hospital.

MATERIAL AND METHODS

This single-center, cross-sectional, descriptive study was conducted at a reference hospital for chest diseases located in a densely populated city and easily accessible from the city's most populous districts. The study protocol was approved by Yedikule Chest Diseases and Thoracic Surgery Education and Research Hospital's Local Ethics Committee (approval no: 21-1; date: 19.03.2025). This study was carried out in accordance with the ethical principles outlined in the Declaration of Helsinki. Participants were informed about the study's objectives, and verbal consent was obtained before the face-to-face interview.

Main Points

- At least seven of every ten cases presenting to the tertiary pulmonology hospital could have been managed at lower levels of care without compromising quality of care.
- Overall, 70.2% had not consulted a family physician in the past year, highlighting opportunities for improvement in the healthcare system.
- Visits to emergency departments were more frequent than those to family physicians (n = 214 vs. 205), which, in itself, suggests a potential overuse of emergency services.
- Only 11% of the 205 cases seen by family physicians were referred to other institutions, suggesting that family care has substantial potential to enhance overall system efficiency.

Data Collection

The pulmonologist researchers recorded data through face-to-face interviews during outpatient appointments scheduled through the Central Physician Appointment System between March and May 2020. Demographic characteristics, educational status, comorbidities, complaints and their duration, and reasons for presentation to our hospital were recorded. All visits related to chest issues within 12 months-including consultations with family physicians, visits to emergency departments, and admissions to public, private, and university hospitals-were retrieved from the "E-nabız" electronic database. These institutions were classified into primary, secondary, and tertiary categories.

Statistical Analysis

Quantitative data are expressed as mean \pm standard deviation (SD), and qualitative data are expressed as frequencies. Variables were recorded and analyzed using the statistical software package SPSS for Windows, version 16.0 (SPSS Inc., Chicago, IL, USA). The quantitative data were presented as mean \pm SD or median (minimum-maximum), and qualitative data were reported as numbers and frequencies. For comparative statistical analyses, a t-test was used to analyze quantitative data, and a chi-square test was used to analyze qualitative data. Logistic regression was conducted to identify independent predictors of family physician visits.

End Point

Based on examinations, final diagnoses, and treatments, the most appropriate level of care was determined retrospectively.

RESULTS

Of the 692 cases enrolled, 351 (51%) were male, with a mean age of 54 \pm 15 years (range, 16-92 years). 10% (n = 72) of the participants were illiterate, 46% (n = 316) had completed primary school, and 10% (n = 70) were university graduates or university students.

The four most common comorbidities were hypertension (21%), asthma (21%), diabetes (16.5%), and chronic obstructive pulmonary disease (COPD) (16%). The most common complaints were shortness of breath (n = 285, 41%) and cough (n = 217, 31%) (Table 1). Complaint durations (in months) were as follows: <1 (n = 94, 13.6%), 1-3 (n = 188, 27.2%), 3-12 (n = 87, 12.6%), and >12 (n = 127, 18.4%).

The reasons for cases' visits to our outpatient clinics, listed below in order of frequency, were: 48.3% (n = 334) presented with complaints; 18.8% (n = 130) attended for follow-up and control visits; 12.6% (n = 87) were referred for examination; 11.8% (n = 82) sought examination based on a recommendation without a preliminary diagnosis; 5.3% (n = 37) required a prescription or medical report; and 3.2% (n = 22) sought a second opinion from other hospitals (Table 1).

The distribution of cases based on the number of previous applications to our pulmonology outpatient clinics was as follows: no previous applications (n = 71, 10%), fewer than 3 (n = 286, 42%), 4-10 (n = 231, 33%), and more than 10

(n = 104, 15%). The etiological factors for follow-up among 321 cases included: asthma (n = 155, 22%); COPD (n = 110, 16%); pulmonary nodules (n = 22, 3%); radiological control, tuberculosis, and bronchiectasis (n = 18, 3%); pulmonary sarcoidosis (n = 6, 1%); pulmonary embolism (n = 5, 0.7%); interstitial lung diseases (n = 3, 0.4%); and obstructive sleep apnea syndrome (n = 2, 0.3%).

Among all cases, 70.2% (n = 486) had not visited a family physician in the past year, and 10% (n = 69) had visited once (Table 2). The main reason these patients did not visit a family physician was that they did not consider consulting one as their first point of contact for their complaints. Of the 205 patients who visited their family physicians, 92 (49%) were prescribed medication and received medical reports, 82 (40%) were

prescribed medication for their complaints, and the remaining patients were advised to visit the hospital.

Over the last year, 70.1% of cases were not treated at public hospitals. Among the cases, 6.5% presented to private hospitals and 3.5% presented to other tertiary care hospitals. The proportion of cases presenting to emergency departments was 30% (n = 208) in the past year and 10.3% (n = 71) in the past month (Table 2).

When factors associated with family physician visits were analyzed, cases presenting to family physicians were older (56±14 vs. 53±15 years, $P=0.005$), had lower follow-up rates at our hospital, and more frequently used emergency department services (Table 3). In logistic regression analysis, emergency

Table 1. Comorbidities, presenting complaints, and reasons for application among patients attending the pulmonology outpatient clinic in the tertiary care hospital

Total n = 692					
Additional diseases	n (%)	Complaints	n (%)	Reasons for applying to the study center	n (%)
HT	146 (21)	Shortness of breath	285 (41)	Direct application due to complaints	338 (48.3)
Asthma	147 (21)	Cough	217 (31)	Follow-up	130 (18.8)
DM	114 (16.5)	Sputum	64 (9)	Referral for examination	87 (12.6)
COPD	111 (16)	Chest pain	56 (8)	Prescription-medical reports	37 (5.3)
CAD	60 (9)	Back pain	39 (5.6)	Recommendation for pulmonology examination	82 (11.8)
Extrapulmonary malignancies	30 (4)	Wheeze	25 (4)	Consulting on examinations and diagnoses at external institutions	22 (3.2)
Thyroid diseases	27 (4)	Rash	22 (3)		
CHF	22 (3)	Flank pain	17 (2.5)		
CTD	22 (3)	Fatigue	14 (2)		
Arrhythmias	20 (3)	Hemoptysis	10 (1.4)		
Sequelae of tuberculosis	20 (3)	Sweating	8 (1)		
Bronchiectasis	9 (1)	Sneeze	8 (1)		
ILD	4 (1)	Snore	4 (0.6)		
OSAS	4 (1)	Weight loss	2 (0.3)		
Lung malignancies	4 (1)				

N: number of patients, %: percentage of patients, HT: hypertension, DM: diabetes, COPD: chronic obstructive pulmonary disease, CAD: coronary artery disease, CHF: congestive heart failure, CTD: connective tissue disorders, ILD: interstitial lung diseases, OSAS: obstructive sleep apnea syndrome

Table 2. Distribution of patient visits to primary, secondary, and tertiary hospitals within one year of the index pulmonology outpatient clinic visit at our tertiary center

n = 692 Family physician AN n (%)	n = 683 Public hospital AN n (%)	n = 686 Emergency department AN n (%)	n = 684 Private hospital AN n (%)	n = 692 University hospital AN n (%)
0 486 (70.2)	0 485 (70.1)	0 478 (69.1)	0 639 (92.3)	0 668 (96.5)
1 69 (10)	1 151 (21.8)	1 134 (19.4)	1 35 (5.1)	1 24 (3.5)
2 31 (4.5)	2 21 (3)	2 39 (5.6)	2 4 (0.6)	
3 22 (3.2)	3 9 (1.3)	3 11 (1.6)	3 2 (0.3)	
4 71 (10.3)	4 10 (1.4)	4 10 (1.4)	4 3 (0.4)	
5 6 (0.9)	5 2 (0.3)	5 4 (0.6)	7 1 (0.1)	
6 3 (0.4)	6 1 (0.1)	6 3 (0.4)		
7 1 (0.1)	7 1 (0.1)	7 3 (0.4)		
8 1 (0.1)	8 1 (0.1)	10 4 (0.6)		
10 2 (0.3)	10 1 (0.1)			
	15 1 (0.1)			

AN: application number, n: number of patients, %: percentage of patients

department visits and lack of follow-up at our hospital were independently associated with a lower likelihood of visiting a family physician (Table 4).

Among all cases, the final diagnosis was asthma and COPD in 56.8%. When the final diagnoses and further examination requirements were evaluated, the application rate that could be managed in primary or secondary care institutions was 4.8% (n = 42), and the application rate that could be managed in a secondary care institution was 66.3% (n = 459). While 16.9% (n = 117) of the cases were considered to require an application to a secondary or tertiary care institution, the rate of cases that absolutely required to be examined in a tertiary care institution remained at 10.7% (n = 74) (Table 5).

Cases were divided into two groups: those manageable at secondary- or tertiary-level care and those requiring definitive tertiary-level care (n = 191). These groups were then compared (Table 6). Cases that did not require tertiary hospital admission were more likely to be male, younger, and to have visited family physicians.

DISCUSSION

The main finding of this study was that at least seven out of every ten cases presenting to the tertiary hospital were diagnosed with diseases that could have been managed at lower-level care facilities. Additionally, the referral rate from external institutions to the tertiary hospital for further examination and recommendations was only 24.4%. These findings alone demonstrate the potential for enhancements in

the health referral system in Türkiye. The referral rate is a crucial parameter in the hierarchical diagnosis-and-treatment system, as its magnitude directly determines treatment accessibility and the efficiency of healthcare utilization.¹¹ To identify solutions for targeted healthcare services, the implications of congestion in the referral system are reviewed alongside the study outcomes.

Among the cases, 70.2% (n = 486) did not visit a family physician or use any primary care services last year. Of the 205 cases presenting to family physicians, only 11% were referred to other institutions, indicating that the “gatekeeper system” is not functioning as intended. The overcrowding in tertiary care hospitals results from the deliberate weakening of primary care under neoliberal transformations. Since 1960, the state has provided healthcare in Türkiye as a fundamental human right within the framework of a social state, in accordance with the Health Law 224 on socialization.¹² As was the case globally, healthcare in Türkiye came under the influence of market-driven policies in the 1990s with the launch of the Health Transformation Program.¹³ Because the aim of this reform program is to rely heavily on technological and scientific advances cost-effectively, performance-based compensation for healthcare professionals has been the standard since 2004.¹⁴ The current anomalies in the referral system may stem from policy reforms. Further studies may provide clearer insights into administrative measures aimed at liberalization and cost control.

Upon returning to family care as a key step in primary care, we found that family physicians who worked under performance

Table 3. Factors associated with family physicians' visits

	n = 486 No family physician visit n (%)	n = 206 Any family physician visit n (%)	P
Male gender	251 (52)	99 (48)	0.405
Age (mean ± SD years)	53±15	56±14	0.005
Education status			
Illiterate	47 (10)	25 (12)	
Primary school	212 (43)	104 (33)	
Middle/high school	174 (36)	60 (29)	0.154
University	53 (11)	17 (8)	
Follow-up in the study center	191 (39)	131 (64)	<0.0001
Any ED visits within 12 months	138 (28)	75 (36)	0.039
Any public hospital visits within 12 months	144 (30)	54 (26)	0.408
Any private hospital visits within 12 months	30 (6)	15 (7)	0.614

SD: standard deviation, ED: emergency department

Table 4. Results of logistic regression analysis for family physician visits

	Beta coefficient	Standard error	Wald	Significance	Exponential beta	95% CI
Age	0.011	0.006	3.450	0.063	1.011	0.999-1.024
Follow-up in the study center	-0.936	0.176	28.411	<0.0001	0.392	0.278-0.553
Any ED application within 12 months	-0.406	0.182	4.965	0.026	0.666	0.466-0.952
Constant	-0.751	0.384	3.831	0.05	0.472	

Wald: wald test in the logistic regression, CI: confidence interval, ED: emergency department

Table 5. Final diagnoses, examination results, and appropriate institutions for the management of patients when they applied to the pulmonology outpatient clinics at the tertiary study center

n = 679 Final diagnosis n (%)	n = 563 Examination results n (%)	n = 692 Appropriate institutions for management of patients n (%)
Asthma, COPD 394 (56.8)	Treatment continuation, prescription, and medical reports 318 (46)	Primary care level 9 (1.3)
Pulmonary nodules 70 (10.1)	Routine assessment 124 (17.9)	Secondary care level 459 (66.3)
Acute bronchitis 35 (5.1)	Non-invasive examination plan 73 (13.5)	Tertiary care level 74 (10.7)
Standard examination 33 (4.8)	Invasive examination plan 35 (5.1)	Secondary and tertiary care levels 117 (16.9)
Pneumonia 30 (4.3)	Referral to allergy clinic 6 (0.9)	Primary and secondary care levels 33 (4.8)
Extrapulmonary diseases 24 (3.5)	Referral to sleep clinic 5 (0.7)	
Lung malignancy examination 23 (3.3)	Evaluation of results 1 (0.1)	
ILD, HP 13 (1.9)	Hospitalization 1 (0.1)	
Pulmonary embolism 12 (1.7)		
Bronchiectasis, sequelae of tuberculosis 11 (1.6)		
Allergic rhinitis 10 (1.4)		
Pulmonary sarcoidosis 5 (0.7)		
Tuberculosis examination 5 (0.7)		
Pleural effusion examination 4 (0.6)		
Hemoptysis 4 (0.6)		
OSAS 4 (0.6)		
Pulmonary hypertension 1 (0.1)		
Pectus excavatum 1 (0.1)		

n: number of patients, COPD: chronic obstructive pulmonary disease, ILD: interstitial lung disease, HP: hypersensitivity pneumonia, OSAS: obstructive sleep apnea syndrome

Table 6. Factors related to referral chain compliance

	n = 501 Tertiary level not required n (%)	n = 191 Tertiary level may be required n (%)	P
Male gender	237 (48)	113 (60)	0.006
Age (mean \pm SD years)	52 \pm 14	58 \pm 14	<0.0001
Education status			
Illiterate	51 (10%)	21 (11)	
Primary school	225 (45%)	91 (48)	
Middle/high school	174 (35%)	60 (31)	0.856
University	51 (10%)	19 (10)	
Follow-up in the study center	233 (47%)	89 (47)	0.998
Any family physician visits within 12 months	172 (34%)	34 (18)	<0.0001
Any ED visits within 12 months	157 (31%)	56 (29)	0.646
Any public hospital visits within 12 months	138 (27)	60 (31)	0.347
Any private hospital visits within 12 months	27 (5)	18 (9)	0.059

SD: standard deviation, ED: emergency department

pressure could only spend 3-5 minutes per patient. According to 2023 data, the number of patients per family physician in Türkiye is twice the OECD average.¹⁵ This shortfall may suggest that healthcare professionals prefer not to work in primary care due to unfavorable factors such as excessive workload, low wages, and limited career prospects. An insufficient number of family physicians exacerbates inequities in access to tertiary care among patients who primarily require primary care. Additionally, family physicians are instructed to focus on specific populations rather than serving patients regionally.¹⁶

Although we have not measured this, some low-income individuals may choose tertiary care services for convenience, for example, lower transportation costs and shorter commute times. Finally, prevailing discourse regarding service quality and the performance pressures faced by public professionals may contribute to the current suboptimal functioning of the referral system.

More specifically, the rate of applications to family physicians was lower than that to the emergency department (n = 205

vs. 214). The use of emergency services as primary-level care (30% of presentations) highlights a collapse of the system's triage mechanism. In this context, we also analyzed the factors associated with visits to family physicians. High emergency department visit rates and low follow-up rates at our hospital were found to be independent predictors of low family physician visit rates. These findings suggest that patients receiving follow-up care for chronic diseases at any institution are also more likely to visit family physicians and that these patients represent a more severe group requiring emergency care. Conversely, the finding that individuals without chronic diseases were less likely to seek care from family physicians may reflect greater reliance on tertiary care hospitals.

The most common final diagnoses among the cases were asthma and COPD (56.8%), which were manageable at primary- and secondary-level care institutions. This condition highlighted the weaknesses in the management of chronic pulmonary diseases, especially in primary-level care. Asthma and COPD are chronic pulmonary diseases that can be improved with the appropriate treatment protocol after risk factors and symptoms are controlled. Family physicians may be assigned responsibility for the diagnosis, control, and treatment of these diseases when appropriate conditions are met. A study found that family physicians were inadequately trained in these diseases and that the primary chest diseases they requested training in were COPD and asthma.¹⁷ Nevertheless, family physicians can always enhance their skills and knowledge by participating in postgraduate training programs, notwithstanding performance pressure and funding limitations.^{18,19} Additionally, investment in medical devices and equipment at primary care facilities can be reconsidered, especially for chronic pulmonary diseases, for which diagnostic and follow-up capacity is significantly lacking.²⁰

In the examination results, the proportion of patients instructed to continue treatment, receive prescriptions, or submit medical reports was 2.5 times greater than the proportion of patients requiring invasive or non-invasive interventions (46% vs. 18.6%). This finding indicates that conditions that could have been managed at primary or secondary care levels unnecessarily increased the workload of the tertiary institution. Such a situation undermines the efficiency of tertiary-care delivery and may hinder critically ill patients' timely access to appropriate specialists-patients who strictly require tertiary-level interventions. This condition may cause serious adverse outcomes in patients with chest diseases. For instance, 2023 data from the Ministry of Health indicate that the incidence of advanced lung cancer is 52.7%.²¹ We consider that this rate can be reduced among lung cancer patients who present to a tertiary hospital without delay, provided a well-functioning referral chain is in place.

The fact that 70.1% of patients did not seek care from a public hospital indicates a lack of trust in secondary-level care. This condition may be explained by the general perception of the public that better-quality healthcare services are provided at higher levels of care. Unfortunately, university and private hospitals, which are considered "reference hospitals" under neoliberalism, receive only 4% and 8% of cases, respectively. This result further demonstrates that public hospitals bear an enormous and disproportionate burden in providing basic public

services. A functioning referral system would undoubtedly benefit all segments of the population, simplifying allocation of the required level of care across income groups.^{22,23}

The factors associated with compliance in the referral chain were also analyzed. Male gender, younger age, and lower rates of applications to family physicians were associated with the need for care at non-tertiary facilities. This may indicate that cases perceive primary care assessments as inadequate, even when their conditions do not warrant tertiary-level care.

Specialist physicians working in tertiary-level care institutions are struggling to cope with excessive workloads caused by an inefficient referral system and performance-related pressures. A study conducted in training and research hospitals, including our center, reported that 92% of physicians experienced burnout syndrome.²³ In Türkiye, health policies, together with harsh working conditions, low wages, increasing rates of violence, and rising immigration in recent years, have been asserted to contribute to physician burnout.²⁴ The Turkish Medical Association reported that more than 1,400 physicians emigrated in 2021. In the last decade, the total number of physicians who left the country to work abroad has reached 4,000.²⁵ Additionally, a study conducted among medical students in Türkiye reported that a significant majority of them (94%) were considering practicing medicine overseas, with nearly half (46%) committed to that decision.²⁶ These data suggest that improving working conditions for healthcare professionals through more effective allocation of patients could reduce turnover and increase physicians' job satisfaction.

For comparison, in countries with a successful "gatekeeper system", such as Cuba, the healthcare system is entirely public and free, whereas in Türkiye it consists of public, semi-public, private, and non-governmental organizations.^{27,28} In Cuba, family physicians are assigned on a geographical rather than a population basis, in contrast to Türkiye.^{16,29} In Cuba, primary care plays a proactive role in preventive medicine and in the diagnosis, treatment, and follow-up of patients, with approximately 80% of all health problems resolved at the primary care level.³⁰ In Türkiye, primary care plays a reactive role in preventive medicine, performing procedures such as prescribing medication and reporting.³¹ To ensure the feasibility of the mandatory system, we suggest: (1) providing additional funding and authority to family physicians; (2) applying penalties or providing incentives to encourage patients to follow the referral process; and (3) integrating the appointment system in tertiary hospitals with referral requirements. However, without free and accessible primary care services, the mandatory referral system would fail to fulfill its intended purpose.

Study Limitations

This study has some limitations. Because the study was single-center and included a homogeneous group of cases, the results cannot be generalized. The geographical distribution of individuals who did not visit a family physician could not be mapped because of missing data. The relatively small sample size ($n = 692$) and brief data collection period (two months) may compromise the statistical power. Additionally, no comparison was made with secondary-level institutions with respect to appropriate referrals. Either multi-center study or a

brief report, each with a larger sample size and an extended data collection period that includes secondary and tertiary healthcare institutions has been planned on this topic.

CONCLUSION

The current study demonstrates that shortcomings in the referral system have resulted in at least 70% of patients receiving tertiary-level care could have been appropriately managed at lower levels. This suggests that the challenge lies not only in the system's structure but also in patient behaviors and perceptions. Therefore, simply mandating referrals may not be sufficient.

The following policy measures could be considered in ongoing reform efforts: (1) Immediate reinvestment in community-based primary care, (2) Reevaluation of profit-driven physician quotas, and (3) Establishment of democratic health councils to help guide policy reforms.

Ethics

Ethics Committee Approval: The study protocol was approved by Yedikule Chest Diseases and Thoracic Surgery Education and Research Hospital's Local Ethics Committee (approval no: 21-1; date: 19.03.2025).

Informed Consent: Participants were informed about the study's objectives, and verbal consent was obtained before the face-to-face interview.

Footnotes

Authorship Contributions

Concept: H.A., F.T.A., Design: H.A., F.T.A., Data Collection or Processing: H.A., F.T.A., Analysis or Interpretation: H.A., F.T.A., Literature Search: H.A., Writing: H.A., F.T.A.

Conflict of Interest: No conflict of interest was declared by the authors.

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