

Analysis of the algology field in Türkiye: A cross-sectional study

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SUMMARY

Objectives: This study examines the professional satisfaction levels of algology specialists, their expectations regarding their educational processes, their academic careers, their experiences of violence in healthcare, their future expectations, and the challenges they face. In addition, it explores the impact of algology on the family and social life of physicians working in this field, its contribution to academic and personal rights, and its effect on economic situations.

Methods: Participants in this study were physicians who switched from neurology, anesthesiology and reanimation, and physical medicine and rehabilitation branches to the algology subspecialty. The study was conducted by volunteer participants who completed a 30-question survey.

Results: A total of 91.5% of the participants worked in tertiary healthcare institutions, 76.6% were between the ages of 30 and 40, 66% were male, and 57.4% were physicians who had transitioned from anesthesiology and reanimation.

Conclusion: The findings highlight the need for regulations to improve the working conditions of algology specialists, eliminate existing difficulties, strengthen the training curriculum, and prevent violence in healthcare. This study aims to raise awareness about the problems and expectations of algology specialists in Türkiye, to develop a solution-oriented road map, and to provide insights into what can be done to deliver higher-quality healthcare services and train qualified and satisfied physicians. Our study fills an important gap in the literature in this field, as it is the first study conducted among specialties in this context.

Keywords: Algology; pain; specialty of algology.

Introduction

Algology is the medical field concerned with pain. The first pain unit in Türkiye was established in 1986 at Istanbul University Faculty of Medicine. In 1990, the Higher Education Council decided to establish algology as a scientific discipline. The first algology department in Türkiye was established under the Department of Anesthesiology and Intensive Care at Istanbul University Faculty of Medicine. ^[1] In 2011, algology was designated by the Ministry of Health as a subspecialty under three main branches (Anesthesiology, Physical Medicine and Rehabilitation, Neurology), and the training period was set at two years. Thus, subspecialty training in algology began in 2013.

The aim of this study is to evaluate the professional experiences, working conditions, and expectations of algology subspecialists in Türkiye for the future of algology. The study aims to identify the status and future development areas in this field by analyzing the educational processes, clinical practices, professional satisfaction levels, and challenges faced by algology specialists.

Materials and Methods

The study was approved by the Ankara Training and Research Hospital Clinical Research Ethics Committee with decision number 199/2024, dated July 24, 2024. The study was conducted in accordance with the principles of the 2008 Declaration of Helsinki.

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Participants were selected from physicians who are anesthesiology, physical medicine and rehabilitation (PMR), and neurology specialists and had an algology subspecialty certificate. Physicians were contacted through face-to-face interviews following meetings, symposiums, and conferences, as well as through online surveys on scientific networks. Participation in the study was voluntary. The confidentiality of participants was ensured, and survey data were collected anonymously. The data obtained were used solely for scientific purposes. A total of 47 algology subspecialists participated in the research. The calculation was performed assuming a type 1 error of 0.05, power of 80%, effect size of 0.2, and prevalence of 50%, and the minimum sample size was found to be 37. As a data collection tool, a questionnaire designed to evaluate the professional experiences of algology subspecialists and their expectations for the future of algology was used. The survey consisted of 30 questions covering demographic information (age, gender, major, working conditions, etc.) and opinions of participants about the subspecialty of algology. The survey topics and questions were inspired by issues raised by algology specialists at congresses, symposiums, and other scientific meetings. The questions of the survey used in the study and the results of the frequency analysis are shown in Appendix 1.

Statistical Analysis

SPSS version 20 software was used to analyze the data. Nominal data are presented as numbers and percentages, and numerical data are presented as mean±standard deviation. The Kolmogorov-Smirnov test was used to assess normal distribution. Parametric tests were applied to normally distributed data, whereas non-parametric tests were used for non-normally distributed data. The chi-square test was used to compare categorical variables. When the minimum expected value in 2x2 tables was <5, Fisher's exact test was preferred; when it was in the range of 5–25, Yates' chi-square test was preferred; and when it was >25, Pearson's chi-square test was preferred. The Pearson chi-square test was used in the MXN tables. An exact correction was made if the minimum expected value was <1 or if more than 20% of the expected values were >5. $P < 0.05$ was considered statistically significant.

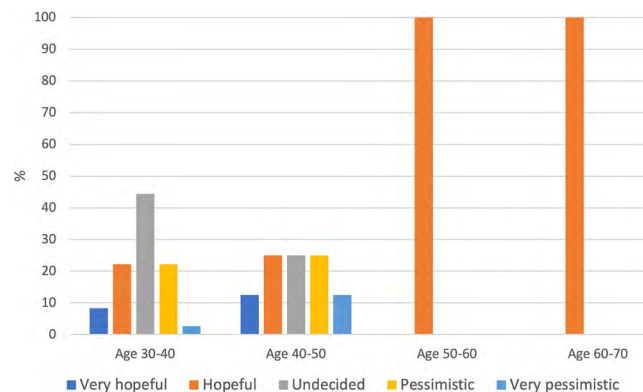


Figure 1. Percentage distribution of participants' thoughts on the future of algology according to age.

Results

When examining the relationship between thoughts on the future of algology according to age, no statistically significant difference was observed (Fig. 1).

In algology subspecialty preferences, professional satisfaction and economic reasons were statistically significant in women compared to men. No significant difference was found between genders in factors such as academic progress and the intensity of calls, on-call, and consultations within the major. No statistically significant difference was found between women and men in terms of the course of violent incidents in the subspecialty branch and experiences of mobbing (Table 1).

It was found that assignment in subspecialty specialization increased in those with anesthesiology and PMR, while it decreased in neurology (Table 2). It was observed that the incidence of verbal/physical violence or white code numbers (a system for the official reporting of workplace violence incidents against healthcare workers) increased among those whose main specialty was anesthesiology and intensive care, while it decreased among those whose main specialty was neurology (Table 2).

The impact of algology subspecialty training on active time spent with family and social life did not show a significant difference according to the level of healthcare service provided. In addition, no significant difference was found between the levels of health institutions in terms of salary satisfaction in the subspecialty, radiation leave entitlement, access to equipment, and provision of a suitable working environment in the operating room (Table 3).

Table 1. Reasons for choosing algology as a subspecialty and violence–mobbing experiences by gender

	Gender n (%)		p
	Male	Female	
Reasons for choosing algology subspecialty			
Professional satisfaction			0.020
Yes	26 (83.9)	8 (50)	
No	5 (16.1)	8 (50)	
Economic reasons			0.010
Yes	10 (32.3)	0 (0.0)	
No	21 (67.7)	16 (100)	
Academic advancement			0.848
Yes	14 (45.2)	6 (37.5)	
No	17 (54.8)	10 (62.5)	
High on-call, shift, and consultation workload in the main specialty			0.615
Yes	17 (54.8)	10 (62.5)	
No	14 (45.2)	6 (37.5)	
Change in frequency of violence/white code incidents from main to subspecialty			0.685
Increased	10 (32.3)	5 (31.3)	
Decreased	9 (29)	3 (18.8)	
No change	12 (38.7)	8 (50)	
Have you experienced mobbing in your subspecialty?			0.273
Yes	9 (29)	8 (50)	
No	22 (71)	8 (50)	

Table 2. Changes in workload, exposure to violence, and professional commitment during subspecialty training according to main specialty

	Main specialty n (%)			p
	Anesthesiology and intensive care	Physical medicine and rehabilitation	Neurology	
How has your workload changed during your subspecialty practice?				<0.001
Increased	17 (63)	5 (55.6)	1 (9.1)	
Decreased	7 (25.9)	1 (11.1)	10 (90.9)	
No change	3 (11.1)	3 (33.3)	0 (0.0)	
How has the frequency of verbal/physical violence or “white code” incidents changed during your subspecialty practice?				<0.001
Increased	14 (51.9)	1 (11.1)	0 (0.0)	
Decreased	1 (3.7)	3 (33.3)	8 (72.7)	
No change	12 (44.4)	5 (55.6)	3 (27.3)	
How has your professional commitment, motivation, and determination changed?				0.224
Increased	13 (48.1)	8 (88.9)	8 (72.7)	
Decreased	5 (18.5)	0 (0.0)	1 (9.1)	
No change	9 (33.3)	1 (11.1)	2 (18.2)	

Table 3. Impact of algology subspecialty training on family, social life, and academic activities, and satisfaction with salary, radiation leave, device access, and operating room conditions

	At which level of healthcare institution do you work? n (%)		p
	Secondary care	Tertiary care	
Change in time dedicated to family during algology subspecialty training			0.338
Increased	1 (25)	22 (51.2)	
Decreased	1 (25)	12 (27.9)	
No change	2 (50)	9 (20.9)	
Impact of algology subspecialty training on social life			0.818
Positive	2 (50)	27 (62.8)	
Negative	1 (25)	6 (14)	
Unchanged	1 (25)	10 (23.3)	
Change in time dedicated to academic work during algology subspecialty training			0.836
Increased	3 (75)	23 (53.5)	
Decreased	0 (0.0)	6 (14)	
No change	1 (25)	14 (32.6)	
Satisfaction with subspecialty salary			0.178
Yes	2 (50)	6 (14)	
No	1 (25)	19 (44.2)	
Undecided	1 (25)	18 (41.9)	
Institutional provision of radiation leave			0.260
Yes	0 (0.0)	15 (34.9)	
No	4 (100)	21 (48.8)	
Not aware	0 (0.0)	7 (16.3)	
Accessibility barriers to medical devices			0.121
None	1 (25)	27 (62.8)	
Ultrasonography	0 (0.0)	5 (11.6)	
Fluoroscopy	0 (0.0)	4 (9.3)	
Radiofrequency	1 (25)	2 (4.7)	
Do you experience difficulties in scheduling operating room time for interventional pain procedures?			0.171
Never	0 (0)	26 (60.5)	
Very rarely	0 (0)	1 (2.3)	
Rarely	0 (0)	1 (2.3)	
Sometimes	1 (25)	9 (20.9)	
Frequently	3 (75)	6 (14)	

When examining the change in work motivation according to the duration of subspecialty training, no significant difference was found (Table 4).

While professional satisfaction and workload in the major play an important role in determining the choice of an algology minor, economic reasons and academic progress appear to be less effective (Table 5).

Discussion

This study was conducted to comprehensively evaluate the professional satisfaction levels, educational processes, working conditions, exposure to violent incidents, and expectations regarding the future of algology among algology subspecialists in Türkiye. This is the first study to address this issue among

Table 4. Impact of algology subspecialty training on medical practice and levels of hope regarding its future

	Duration of practice as an algology subspecialist, n (%)			p
	≤5 years	5–10 years	>10 years	
How has your commitment, motivation, and determination toward the medical profession changed with algology subspecialty training?				0.621
Increased	22 (66.7)	5 (50)	2 (50)	
Decreased	4 (12.1)	2 (20)	0 (0)	
No change	7 (21.2)	3 (30)	2 (50)	
Would you recommend algology subspecialty training to physicians in your main specialty?				0.633
Definitely recommend	13 (39.4)	4 (40)	3 (75)	
Recommend	14 (42.4)	3 (30)	0 (0)	
Undecided	5 (15.2)	2 (20)	1 (25)	
Do not recommend	1 (2.9)	1 (10)	0 (0)	
How hopeful are you about the future of algology in general, and how do you assess its future prospects?				0.100
Very hopeful	3 (9.1)	1 (10)	0 (0)	
Hopeful	8 (24.2)	2 (20)	3 (75)	
Neutral	15 (45.5)	3 (30)	0 (0)	
Pessimistic	6 (18.2)	4 (40)	0 (0)	
Very pessimistic	1 (3)	0 (0)	1 (25)	

Table 5. Reasons for choosing algology as a subspecialty by main specialty

	Main specialty, n (%)			p
	Anesthesiology and intensive care	Physical medicine and rehabilitation	Neurology	
Professional satisfaction				0.004
Yes	21 (77.8)	9 (100)	4 (36.4)	
No	6 (22.2)	0 (0)	7 (63.6)	
Economic reasons				0.227
Yes	8 (29.6)	0 (0)	2 (18.2)	
No	19 (70.4)	9 (100)	9 (81.8)	
Academic advancement				0.615
Yes	10 (37)	5 (55.6)	5 (45.5)	
No	17 (63)	4 (44.4)	6 (54.5)	
High intensity of on-call duties, night shifts, and consultations in the main specialty				<0.001
Yes	17 (63)	0 (0)	10 (90.9)	
No	10 (37)	9 (100)	1 (9.1)	

algology and other subspecialties. The majority of participants (76.6%) were between the ages of 30 and 40, and 66% were male physicians. Furthermore,

most of the survey participants specialized in anesthesiology (57.4%), and 91.5% worked in tertiary healthcare institutions.

In the literature, there are conflicting results regarding the relationship between physician satisfaction and age or years of experience.^[2,3] However, some studies indicate that older and more experienced physicians have higher levels of professional satisfaction.^[4,5] In our study, no significant difference was found in opinions regarding the future of algology according to age groups ($p=0.477$) (Fig. 1). This indicates that physicians in different age groups share a similar perspective on the future of algology.

When the effect of gender on the reasons for choosing an algology subspecialty was examined, the professional satisfaction rate of physicians was found to be 50% in women and 83.9% in men; economic reasons were found to be 0.0% in women and 32.3% in men. The findings reveal that male physicians are more likely than female physicians to choose algology for reasons of professional satisfaction and economic factors. There was no significant difference in terms of academic advancement; both gender groups attached similar importance to this issue ($p=0.848$).

When violence experiences were evaluated within the main specialty, verbal and physical violence incidents were found to increase by 31.9% in algology. Fifty percent of female physicians had experienced mobbing, compared to 29% of male physicians ($p=0.273$). In our study, 63% of physicians working in anesthesiology and intensive care and 55.6% in PMR reported an increase in workload, while this rate was only 9.1% in neurology ($p<0.001$). Similarly, the rates of violent incidents also varied by department; they were found to be 51.9% in anesthesiology and intensive care, 11.1% in PMR, and 0% in neurology ($p<0.001$).

The most common experience of violence among participants was due to drug requests from addicted patients (80.9%), followed by requests for examination without an appointment (70.2%) and requests not to wait in line for examination (61.7%).

These data reveal the fundamental causes of violence encountered when providing healthcare services in the field of algology. Preventing mobbing incidents and raising awareness on this issue are particularly important for female doctors. Studies

can be conducted based on these data to identify the reasons for the increase in violence, prevent it, and increase physician satisfaction. It should be noted that research has shown that increased psychological stress and workload in the workplace significantly decrease physician satisfaction.^[2,6,7] Changes in commitment to the profession, motivation to work, and perseverance are similar across specialties (Table 2).

When examining the effects of algology subspecialists' working conditions on their family life, social life, and academic work, 33.3% of those working in secondary care and 51.2% of those working in tertiary care reported an increase in the time they spent with their families ($p=0.338$). The impact on social life was reported as positive by 62.8% of respondents working in tertiary care and by 50% of those in secondary care ($p=0.818$). The proportion of specialists who reported an increase in time devoted to academic studies was 75% in secondary care and 53.5% in tertiary care ($p=0.836$). These data indicate that the effects of algology subspecialists' working conditions on family and social life differ between levels but are not statistically significant. The fact that the radiation permit rate is 34.9% in tertiary care and 0% in secondary care indicates that algology physicians working in secondary care are at risk regarding radiation safety and face various difficulties in accessing their personal rights. Physicians working in tertiary care stated that 62.8% had no problems with access to medical devices and 60.5% had no problems with taking time off in the operating room (Table 3). We observe that specialists working in secondary healthcare institutions face greater difficulties in accessing equipment and using operating theatres.

A study examining individual and work environment factors affecting employee motivation levels showed that, in addition to individual factors such as age, length of service, and work-related thoughts, work environment-related reasons such as status and conditions also significantly affected satisfaction.^[8] When examining the commitment to the profession and the level of optimism about the future of algology among algology subspecialists, 66.7% of those with five years or less of experience reported an increase in their commitment to

the profession, whereas this rate decreased among those with longer experience. When examining levels of optimism regarding the future of algology, 33.3% of those who had been working for five years or less expressed a positive view, while 21.2% had a negative outlook. However, those who had been working for ten years or more appeared to have a more optimistic outlook ($p=0.100$) (Table 4).

In choosing algology as a subspecialty, professional satisfaction, economic reasons, academic advancement, and the intensity of on-call duties and consultations in the main specialty played a significant role in the decision-making process. For example, 36.4% of neurology specialists, 77.8% of anesthesiology and intensive care specialists, and 100% of PMR specialists chose the algology subspecialty for professional satisfaction ($p=0.004$). Although there was no significant difference according to major branches, it was seen that economic reasons were not an important source of motivation in the choices of most physicians in all branches ($p=0.227$). The intensity of on-call and consultation requests within the main specialty stood out as a significant factor influencing the choice of subspecialty in algology. While no physician in the PMR branch chose this subspecialty due to this intensity, it was cited as a reason for preference by 63% in anesthesiology and 90.9% in neurology ($p<0.001$) (Table 5).

In the subspecialty, according to the majority of participants (89.4%), violations of algology in main specialties are the biggest problem, while safety-violence issues ranked second (40.4%). A total of 68.1% of participants viewed on-call duties and consultations as the biggest problem in the main branch, while increased workload ranked second at 57.4%. Additionally, in assessments regarding employment rights alongside subspecialty training, 44.7% of participants stated that their employment rights had increased, while 12.8% stated that they had decreased. In light of these data, clearly defining the scope of procedures to be performed in the core curricula of the main branches and implementing regulations in the field of safety will resolve a significant portion of the issues faced by algology specialists. A study has shown that doctors with low job satisfaction are more likely to change jobs. The most obvious

consequence of an unsatisfactory job is that doctors leave their jobs to work elsewhere, which disrupts patient-doctor continuity.^[9] When our study is examined in this regard, it is seen that 59.6% of the participants had thought about working as an algology specialist abroad at least once due to the difficulties they experienced. When examining the tendency to return to their main specialties, 83% of participants said they had never considered this option. Furthermore, 76.5% of participants recommended subspecialty training in algology to physicians in their main specialties.

When the satisfaction levels regarding the conferences, seminars, and training programs organized by the Turkish Algology Association were examined, 80.8% of the participants expressed a positive opinion. In the evaluations regarding the effectiveness of the association in contributing to legislative changes in the field of health policies and algology, 44.6% stated that it was very effective or effective, 27.7% stated that it was not effective, and 27.7% stated that they were undecided. These data show that the association provides a high level of satisfaction with its educational activities in general, but that there are higher rates of indecision and dissatisfaction regarding legislative changes and contribution to policy.

Participants recommended increasing external rotation opportunities, introducing a thesis requirement, and expanding the use of regional anesthesia under ultrasound guidance in the algology training curriculum. Additionally, recommendations included removing the main discipline rotation, adding a neurosurgery rotation, and granting algology specialists the authority to provide PMR programs.

Conclusion

In conclusion, the findings obtained in this study provide important information for understanding the professional satisfaction levels of algology subspecialists, their expectations regarding educational processes, experiences of violence, expectations for the future, and the challenges they face. We believe that future studies will be valuable in terms of examining these dynamics in more detail and developing recommendations to solve the difficulties physicians face and prevent violence.

Ethics Committee Approval: The Ankara Training and Research Hospital Clinical Research Ethics Committee granted approval for this study (date: 24.07.2024, number: 199/2024).

Informed Consent: Written informed consents were obtained from patients who participated in this study.

Conflict of Interest: The authors declare that there is no conflict of interest.

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Appendix 1. Survey questions applied in the study and frequency analysis results

Questions	Options	Frequency	%
1. Age?	☐ 30–40	36	76.6
	☐ 40–50	8	17
	☐ 50–60	1	2.1
	☐ 60–70	2	4.3
2. Gender?	☐ Male	31	66
	☐ Female	16	34
3. What is your main specialty?	☐ Anesthesiology and intensive care	27	57.4
	☐ FMR	9	19.1
	☐ Neurology	11	23.4
4. At which level of healthcare institution do you work?	☐ Secondary care public institution	4	8.5
	☐ Tertiary care public institution	43	91.5
	☐ Primary care or private healthcare institutions	0	0
5. Duration of working as an algology subspecialist?	☐ ≤5 years	33	70.2
	☐ 5–10 years	10	21.3
	☐ >10 years	4	8.5
6. What are the main reasons for choosing your subspecialty? (You may select more than one option)	☐ Professional satisfaction	34	72.3
	☐ Economic reasons	10	21.3
	☐ Academic advancement	20	42.6
	☐ High on-call duty, shift, and consultation workload in your main specialty	27	57.4
7. How has your workload been during your work as an algology subspecialist?	☐ Increased	23	48.9
	☐ Decreased	18	38.3
	☐ Unchanged	6	12.8
8. How has your time with your family been during your work as an algology subspecialist?	☐ Increased	24	51.1
	☐ Decreased	11	23.4
	☐ Unchanged	12	25.5
9. How has your social life been affected by your algology subspecialty?	☐ Positive	29	61.7
	☐ Negative	7	14.9
	☐ No change	11	23.4
10. How much time do you dedicate to academic work alongside your algology subspecialty?	☐ Increased	26	55.3
	☐ Decreased	6	12.8
	☐ Unchanged	15	31.9
11. How has your economic purchasing power changed with your subspecialty?	☐ Increased	25	53.2
	☐ Decreased	6	12.8
	☐ Unchanged	16	34
12. Are you satisfied with the income you earn in your subspecialty?	☐ Yes	8	17
	☐ No	20	42.6
	☐ Undecided	19	40.4
13. How does the rate of verbal/physical violence or 'white code' incidents you experience in your subspecialty compare to your main specialty?	☐ Increased	15	31.9
	☐ Decreased	12	25.5
	☐ Unchanged	20	42.6

Appendix 1 (cont). Survey questions applied in the study and frequency analysis results

Questions	Options	Frequency	%
14. What are the reasons for the verbal/ physical violence or 'white code' incidents you have experienced? (Select all that apply)	☐ Requests for medication by dependent patients ☐ Walk-in consultation requests ☐ Avoiding waiting in line for examination ☐ Other	38 33 29 1	80.9 70.2 61.7 2.1
15. Have you been subjected to mobbing in your subspecialty?	☐ Yes ☐ No	17 30	36.2 63.8
16. What were the most significant problems you faced in your main specialty? (Select all that apply)	☐ Economic concerns ☐ Safety and violence issues ☐ Workload ☐ On-call duties, night shifts, and consultations ☐ Mobbing ☐ Other (e.g., professional dissatisfaction, academic career)	15 12 27 32 4 5	31.9 25.5 57.4 68.1 85 10.6
17. What are the most significant problems you encounter in your subspecialty? (Select all that apply)	☐ Economic concerns ☐ Safety and violence issues ☐ Workload ☐ Mobbing ☐ Encroachment on algology practice by other specialties ☐ Other (e.g., professional insufficiency)	10 19 15 5 42 1	21.3 40.4 31.9 10.6 89.4 2.1
18. How has your commitment, motivation, and determination toward the profession changed after your subspecialty training	☐ Increased ☐ Decreased ☐ Unchanged	29 6 12	61.7 12.8 25.5
19. How have your employment rights/ benefits changed with your subspecialty?	☐ My employment rights/benefits have increased ☐ My employment rights/benefits have decreased ☐ No opinion	21 6 20	44.7 12.8 42.6
20. Has your annual radiation leave been granted by your hospital?	☐ No ☐ Yes ☐ No opinion	25 15 7	53.2 31.9 14.9
21. Are there any medical devices that are difficult to access when needed in your institution?	☐ Ultrasonography ☐ Fluoroscopy device ☐ Radiofrequency device ☐ None ☐ All ☐ Other	5 4 3 28 7 0	10.6 8.5 6.4 59.6 14.9 0
22. Do you experience difficulties in obtaining operating room time for algological procedures?	☐ No, never ☐ Yes, very rarely ☐ Yes, rarely ☐ Yes, sometimes ☐ Yes, frequently	26 1 1 10 9	55.3 2.1 2.1 21.3 19.1

Appendix 1 (cont). Survey questions applied in the study and frequency analysis results

Questions	Options	Frequency	%
23. Have you considered returning to your main specialty as a result of the difficulties encountered in your subspecialty?	☐ No, never ☐ Yes, very rarely ☐ Yes, rarely ☐ Yes, sometimes ☐ Yes, frequently	39 3 1 3 1	83 6.4 2.1 6.4 21
24. Have you considered working abroad as an algology specialist?	☐ No, I have not considered it ☐ Yes, very rarely ☐ Yes, rarely ☐ Yes, frequently	19 5 12 11	40.4 10.6 25.5 23.4
25. Would you recommend algology subspecialty training to physicians practicing in your main specialty?	☐ Definitely recommend ☐ Recommend ☐ Undecided ☐ Do not recommend ☐ Strongly do not recommend	20 16 8 2 1	42.5 34 17 4.2 2.1
26. How satisfied are you with the conferences, seminars, and educational programs organized by the Turkish Algology Society?	☐ Very satisfied ☐ Satisfied ☐ Undecided ☐ Dissatisfied ☐ Very dissatisfied	8 30 6 3 0	17 63.8 12.8 6.4 0
27. How do you assess the effectiveness of the Turkish Algology Society in contributing to health policies and legislative changes in the field of algology?	☐ Very effective ☐ Effective ☐ Undecided ☐ Ineffective ☐ Very ineffective	5 16 13 11 2	10.6 34 2.7 23.4 4.3
28. How optimistic are you about the future of algology, and how do you evaluate its future prospects?	☐ Very optimistic – it has a very bright future ☐ Optimistic – it has a bright future ☐ Neutral– neither bright nor poor ☐ Pessimistic ☐ Very pessimistic	4 13 18 10 2	8.5 27.7 38.3 21.3 4.3
29. What are your perspectives on the future role and influence of algology specialists?	☐ Their role and influence will increase ☐ Their role and influence will decrease ☐ Their role and influence will remain the same	23 17 7	48.9 36.2 14.9
30. Do you think there are important changes needed in the algology training curriculum? Please provide your suggestions	- External rotation opportunities should be introduced - A thesis requirement should be added - Training and practice in regional anesthesia and ultrasound-guided peripheral nerve and plexus blocks should be increased	- The main specialty rotation should be removed, and the duration of rotations in other departments should be shortened. - A neurosurgery rotation should also be included in the program. - Algology specialists should be granted the competence to provide physical therapy to patients.	