BIBLIOMETRIC ANALYSIS OF ALGOLOGY THESES IN TÜRKİYE: RESEARCH TRENDS AND PUBLICATION OUTCOMES

Türkiye'deki Algoloji Tezlerinin Bibliyometrik Analizi: Araştırma Eğilimleri ve Yayın Sonuçları

Ufuk TURAN[1], Ela ERTEN[2]

[1]Ankara Etlik Şehir Hastanesi,
Algoloji Bölümü,

Ankara,

Türkiye.

[2]Gülhane Eğitim ve Araştırma Hastanesi,
Anesteziyoloji ve Reanimasyon Bölümü,

Ankara,

Türkiye.

Ufuk TURAN, Dr.
    (0000-0002-8475-2175)
Ela ERTEN, Dr.
    (0000-0003-2820-5625)

İletişim:

Dr. Ufuk TURAN

Ankara Etlik Şehir Hastanesi, Algoloji Bölümü, Varlık Mahallesi, Halil Sezai Erkut Caddesi, Yenimahalle/Ankara.

ABSTRACT

Objective: Algology is an evolving subspecialty within anesthesiology, neurology, and physical medicine and rehabilitation. Specialty theses are crucial for medical education and scientific progress. However, no systematic evaluation has been conducted on the distribution, thematic focus, or publication status of algology-related theses in Türkiye. This study aims to perform a bibliometric analysis of such theses, examining their distribution across disciplines, research trends, publication rates, and academic impact.

Material and Methods: This retrospective study utilized data from the National Thesis Center of Türkiye. Theses in anesthesiology, neurology, and physical medicine and rehabilitation were reviewed to identify those related to algology. Extracted data included thesis titles, research topics, study designs, advisor titles, institutional affiliations, publication status, and citation data. Descriptive statistics and comparative analyses were employed to assess differences across disciplines.

Results: Of 10505 specialty theses, 331 (3.2%) were related to algology. Neurology contributed the highest proportion (6.8%), followed by anesthesiology (2.3%) and physical medicine and rehabilitation (1.5%). Neurology focused on headache disorders (86.3%), anesthesiology on interventional techniques (20.3%), and physical medicine and rehabilitation on peripheral nerve blocks (24.3%). The overall publication rate was 34.1%, with significant differences across disciplines (p = 0.048). Neurology had the highest publication rate in SCI/SCI-E journals (60.3%).

Conclusion: This is the first comprehensive bibliometric analysis of algology-related theses in Türkiye. Findings highlight differences in research focus, publication rates, and methodologies, emphasizing the need for enhanced interdisciplinary collaboration and institutional support in pain medicine research.

Keywords: *Pain Management; Bibliometrics; Academic Dissertation; Anesthesiology; Neurology; Physical and Rehabilitation Medicine*

ÖZET

Amaç: Algoloji, anesteziyoloji, nöroloji ve fiziksel tıp ve rehabilitasyon alanlarında gelişmekte olan bir alt dal olup, tıpta uzmanlık tezleri eğitim ve bilimsel ilerleme açısından önemli bir bileşendir. Ancak, Türkiye'de algoloji ile ilgili tezlerin dağılımı, tematik odakları veya yayımlanma durumu üzerine sistematik bir değerlendirme yapılmamıştır. Bu çalışma, algoloji ile ilgili tezlerin disiplinler arası dağılımını, araştırma eğilimlerini, yayımlanma oranlarını ve akademik etkisini incelemeyi amaçlamaktadır.

Gereç ve Yöntemler: Bu retrospektif kesitsel çalışma, Türkiye'nin Ulusal Tez Merkezi verilerinden elde edilen verilerle yapılmıştır. Anesteziyoloji, nöroloji ve fiziksel tıp ve rehabilitasyon alanlarındaki tezler incelenmiş ve algoloji ile ilgili olanlar belirlenmiştir. Çıkarılan parametreler arasında tez başlıkları, araştırma konuları, çalışma tasarımları, danışman unvanları, kurumsal bağlantılar, yayımlanma durumu ve atıf verileri yer almaktadır. Disiplinler arasındaki farklılıkları değerlendirmek için betimsel istatistikler ve karşılaştırmalı analizler kullanılmıştır.

Bulgular: Toplam 10505 uzmanlık tezinden 331'i (%3,2) algoloji ile ilgiliydi. En yüksek oran nörolojiye ait olup (%6,8), ardından anesteziyoloji (%2,3) ve fiziksel tıp ve rehabilitasyon (%1,5) gelmektedir. Nöroloji tezleri genellikle baş ağrısı bozukluklarına (%86,3), anesteziyoloji interdisipliner tekniklere (%20,3), fiziksel tıp ve rehabilitasyon ise periferik sinir bloklarına (%24,3) odaklanmıştır. Toplam yayımlanma oranı %34,1 olup, disiplinler arası farklılıklar istatistiksel olarak anlamlıdır (p = 0,048).

Sonuç: Bu çalışma, Türkiye'deki algoloji ile ilgili uzmanlık tezlerinin kapsamlı ilk bibliyometrik analizidir. Bulgular, araştırma odakları, yayımlanma oranları ve yöntemsel farklılıkları vurgulamakta ve ağrı tıbbı araştırmalarının akademik görünürlüğünü artırmaya yönelik daha fazla disiplinler arası iş birliği ve kurumsal destek gerekliliğini ortaya koymaktadır.

Anahtar Kelimeler: *Ağrı Yönetimi; Bibliyometri; Akademik Tez; Anesteziyoloji; Nöroloji; Fizik Ve Rehabilitasyon Tıbbı*

INTRODUCTION

Algology, also known as (interventional) pain medicine, is a dynamic and multidisciplinary branch of medical science that focuses on understanding, diagnosing, and treating chronic pain. In Türkiye and numerous European countries, this field initially emerged as a subspecialty of anesthesiology and reanimation, but is now also recognized as a subspecialty of neurology and physical medicine and rehabilitation (1,2). The first algology department in Türkiye was established in 1991 under the Department of Anesthesiology and Reanimation at Istanbul Faculty of Medicine (1,2).

Medical specialty training is a structured process designed to equip graduates with theoretical knowledge and practical skills in a specific field. According to the Regulation on Specialty Training in Medicine and Dentistry in Türkiye, completion of a specialty thesis is a mandatory requirement for obtaining specialization in a primary discipline. However, while subspecialty training does not necessitate thesis completion, specialty theses in anesthesiology and reanimation, neurology, and physical medicine and rehabilitation frequently address topics related to algology.

Although algology has gained increased popularity, no study has yet reviewed the range and quality of medical theses related to this field. These theses constitute valuable academic resources that reflect the evolution of pain medicine and its integration into various specialties. Scientific publishing is fundamental to academic advancement (3). Typically, medical doctors commence their academic careers through their specialty theses (4). A comprehensive bibliometric analysis of these theses can offer insights into research trends, methodological approaches, and implications for pain medicine practice in Turkey.

This study endeavors to address the existing gap by systematically analyzing theses related to algology archived at National Thesis Center. Through a comprehensive evaluation of research topics, methodological approaches, and their clinical relevance, this study aimed to elucidate the evolution of algology in Türkiye. By critically assessing the contributions and limitations of these theses, this study seeks to provide valuable insights that will guide future academic research and clinical advancements in pain medicine, addressing both its scientific and practical challenges.

MATERIALS AND METHODS

This study analyzed the distribution of specialty theses related to algology across three primary disciplines: anesthesiology and reanimation, neurology, and physical medicine and rehabilitation. A retrospective cross-sectional analysis was conducted to determine the proportion of algology-related theses in each specialty. The study was initiated after obtaining approval from the local ethics committee (registration date and number: 07.01.2025-2025/18).

Data were sourced from National Thesis Center by inputting the specialty field, thesis type, and year into the search interface (https://tez.yok.gov.tr/UlusalTezMerkezi/tarama.jsp). Data collection occurred in January 2025, and only completed theses available up to this date were included in the analysis. These theses were identified through a systematic review of their titles, abstracts, keywords, and full texts when accessible. The inclusion criteria comprised all theses explicitly related to algology, whereas those deemed irrelevant were excluded. Medical specialty theses directly related to the field of algology were included in the study if they contained the following keywords in the title, abstract, keyword section, or full text: algology, radiofrequency, neuromodulation, cancer pain management, chronic pain, radicular pain, headache, migraine, trigeminal neuralgia, joint injections, regenerative therapies, and entrapment syndromes. For each identified thesis, additional parameters were recorded, including the year of completion, the institution where the thesis was conducted, the academic title of the advisor, study design and temporal characteristics, and whether the thesis had been published. If published, further details regarding journal indexing status and the number of citations were documented.

The publication status of these theses was ascertained through a comprehensive search of multiple databases, including PubMed (https://pubmed.ncbi.nlm.nih.gov), Health Sciences University Library and Documentation Center Database (https://kutuphane.sbu.edu.tr/vetisbt), Turkish Academic Network and Information Center Turkish Database (ULAKBIM) (https://trdizin.gov.tr), and Google Scholar (https://scholar.google.com).

TURAN et al.
Trends in algology theses in Türkiye

Bozok Tıp Derg 2025;15(2):218-225
Bozok Med J 2025;15(2):218-225

The indexation data of the scientific journals were also documented, encompassing journals indexed in the Scientific Citation Index/Scientific Citation Index-Expanded (SCI/SCI-E), Emerging Sources Citation Index (ESCI) and ULAKBIM, as well as those not indexed in SCI/SCI-E, ESCI, and ULAKBIM.

Statistical analyses were conducted using SPSS software version 27.0.1.0 (IBM Corp., Armonk NY, USA). Continuous variables were summarized as median, minimum, and maximum values, contingent upon the data distribution. Categorical variables are presented as frequencies (n) and percentages (%). For comparisons among three groups, Kruskal-Wallis test was used for non-normally distributed variables. Comparative analyses between two independent groups were conducted utilizing the Mann-Whitney U test for datasets that did not conform to a normal distribution. Categorical variables were examined using the chi-squared (χ^2) test and Fisher's exact test, as appropriate. Statistical significance was determined at a threshold of $p < 0.05$.

RESULTS

A comprehensive review was conducted on a total of 10,505 theses, comprising 5,694 from the fields of anesthesiology and reanimation, 2,361 from neurology, and 2,450 from physical medicine and rehabilitation. Of these, 133 theses (2.3%) in anesthesiology, 161 (6.8%) in neurology, and 37 (1.5%) in physical medicine and rehabilitation were focused on algology, representing 3.2% of the total theses. Additionally, 34.1% of the theses related to algology were subsequently published in scientific journals (Figure 1).

The descriptive statistics of the primary discipline distribution, advisor titles, institutional affiliations, research designs, and study topics are summarized in Tables 1 and 2. The majority of theses were conducted in university settings, most of which were supervised by professors. rofessors. Prospective study designs are common, particularly in the fields of neurology and physical medicine. The research topics varied, with neurology focusing on migraine and other headache (86.3%), anesthesiology on epidural injections (20.3%), neuromodulation (13.5%), physical medicine on peripheral blocks (24.3%), and prolotherapy (16.2%).

Publication rates varied significantly among the disciplines (p=0.048). Overall, 34.1% (n=113) of theses were published, whereas 65.9% (n=218) remained unpublished. Neurology had the highest publication rate (39.1%, n=63), followed by physical medicine and rehabilitation (40.5%, n=15) and anesthesiology (26.3%, n=35).

The distribution of publications in different journal indexes demonstrated a statistically significant difference among specialties (p<0.001). Neurology had the highest percentage of publications indexed to SCI/SCI-E (60.3%). In contrast, Anesthesiology and Physical Medicine and Rehabilitation displayed a more heterogeneous distribution across multiple indexing databases. Additionally, ESCI was more prominent in anesthesiology, with 51.4% of the publications indexed (Figure 2).

The distribution of advisor types differed significantly across specialties (p=0.025). Professors constituted the majority of all three fields, with the highest proportion in anesthesiology (63.8%). Associate and assistant professors were distributed more evenly. However, publication status did not differ significantly according to academic title (p =0.458).

The number of citations did not differ significantly across specialties (p=0.176).

The time to publication differed significantly across specialties (p<0.05). Pairwise comparisons using a post-hoc test showed a significant difference between anesthesiology and neurology (p=0.016), and between neurology and physical therapy (p=0.004), whereas no significant difference was found between anesthesiology and physical medicine (p=0.201) (Table 4).

The distribution of publications showed the highest contributions from Ankara (18.6%) and İstanbul (16.8%), followed by Elâzığ (8.8%) and Aydın (5.3%), whereas all other cities contributed less than 5%.

DISCUSSION

According to medical specialization regulations, completing a thesis is mandatory for specialization training. This thesis preparation provides medical doctors with scientific writing skills (5). However, they are not obligated to convert them into scientific publications (4,6).

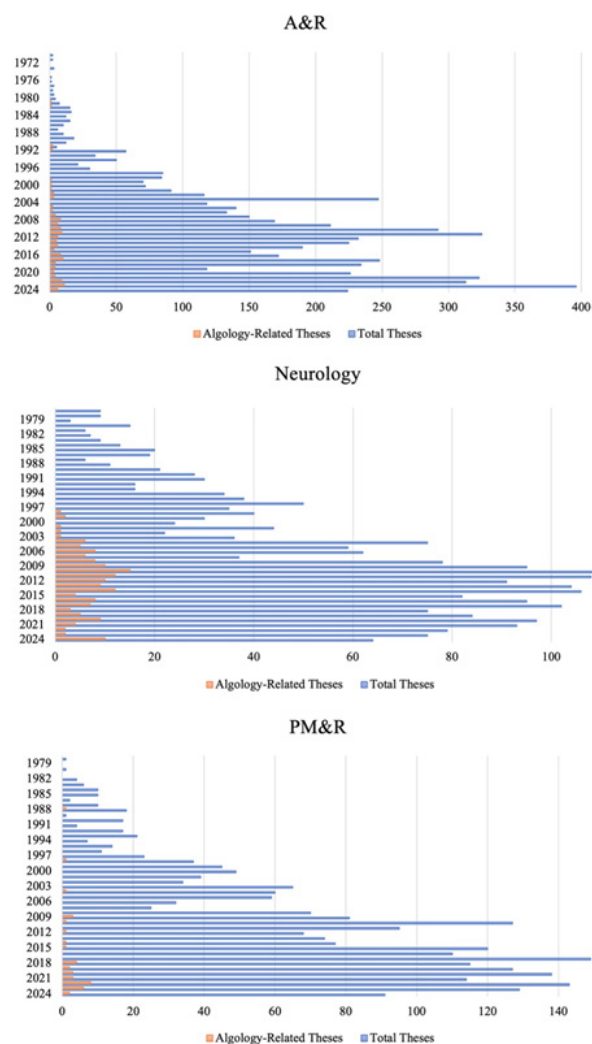This study represents the inaugural evaluation of the

TURAN et al.
Trends in algology theses in Türkiye

Bozok Tıp Derg 2025;15(2):218-225
Bozok Med J 2025;15(2):218-225

Figure 1. Yearly Distribution of Algology-Related Theses and Total Theses in A&R, Neurology and PM&R (A&R: Anesthesiology and Reanimation, PM&R: Physical Medicine and Rehabilitation)

Figure 2. Journal distribution of theses published in three primary specialties

publication status of theses related to algology specialties in Türkiye, while also examining their thematic distribution and other pertinent characteristics. This research provides data on the distribution and role of algology theses in anesthesiology and reanimation, neurology and physical medicine and rehabilitation. The findings revealed significant disparities in research direction, publication trends, and methodological approaches within these specialties, highlighting the evolving nature of algology in medical specialty training.

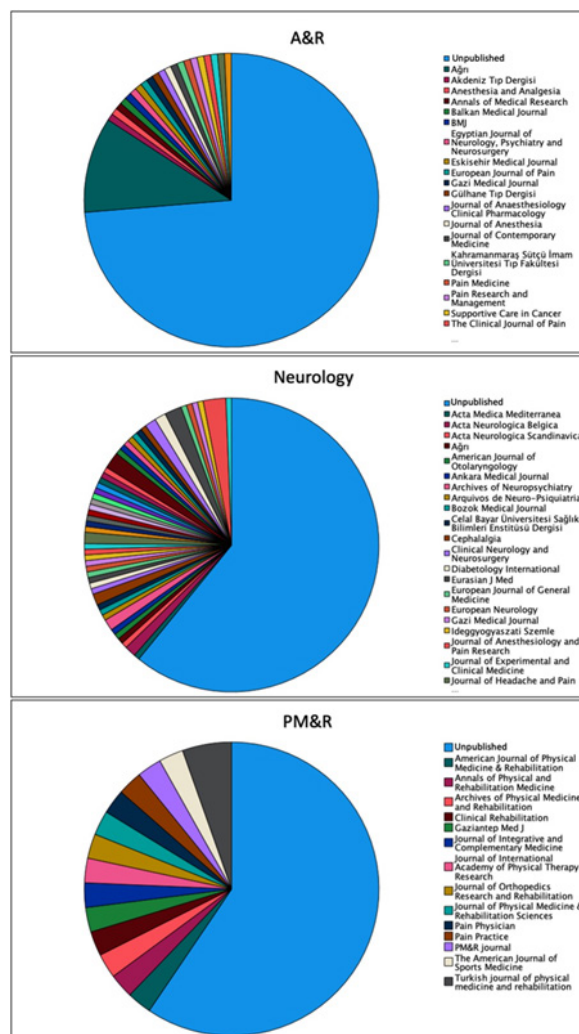The distribution of theses pertaining to algology

exhibited notable variation across different disciplines (Table 1). Neurology accounted for the highest proportion of theses on algology (6.8%), followed by anesthesiology (2.3%) and physical medicine and rehabilitation (1.5%). The substantial prevalence of algology-related theses in neurology appears to correspond with the increasing interest in migraine and other headache disorders, which constitute the majority (86.3%) of pain-related theses in this field. Conversely, anesthesiology emphasizes interventional techniques, such as epidural injections (20.3%) and neuromodulation (13.5%), reflecting its focus on

TURAN et al.
Trends in algology theses in Türkiye

Bozok Tıp Derg 2025;15(2):218-225
Bozok Med J 2025;15(2):218-225

interventional pain management (Table 2). In the domain of physical medicine and rehabilitation, emphasis on musculoskeletal pain has resulted in a higher number of theses on peripheral nerve blocks (24.3%) and prolotherapy (16.2%). These findings underscore the multidisciplinary nature of pain medicine.

The distribution of publications reflects the prominent roles of Ankara and İstanbul as academic centers, while other cities demonstrate comparatively limited contributions (Figure 3). The publication rate of algology-related theses was highest in physical medicine (40.5%), followed by neurology (39.1%) and anesthesiology (26.3%), with significant differences between the main disciplines (p=0.048) (Table 3). Variations in research culture and clinical practice across various disciplines may contribute to these observed differences. While scientific publications abroad are often conducted by teams of researchers in Türkiye, the need for individual efforts may negatively affect the transformation of theses into academic publications (4). In a questionnaire study by Saydam et al., which explored the necessity of writing a thesis, most participants with expert doctorates believed that requiring the composition of an article for publication would be more beneficial than mandating a thesis (7). Moreover, research conducted in both developed and developing countries has shown that the conversion rate of theses into publications is variable but generally remains low (8). Additionally, there were notable differences in the indexing distribution of published theses (p<0.001). Neurology had the highest proportion of SCI/SCI-E indexed publications (60.3%), whereas anesthesiology stood out with a significant presence in the ESCI index (51.4%) (Table 3). Based on a previous study, the publication rate of theses on Algology in SCI/SCI-E journals is higher than the total publication rate of theses in anesthesiology (9).

Key impediments to converting theses into publications include structural and administrative challenges within the research process, insufficient training in academic publishing, and linguistic barriers (10,11). Moreover, the substantial workload faced by physicians, coupled with the absence of effective publication incentive mechanisms, adversely affects this process (8,12,13). Although professors predominantly served as thesis advisors across all three disciplines, this variable did not significantly influence the probability of publication (p=0.458) (Table 3). This indicates that although academic advising is crucial, other factors may have a more substantial influence on publication success.

The duration of thesis publication exhibited significant variation across different academic disciplines (p<0.05) (Table 4). Pairwise comparisons identified statistically significant differences between Anesthesiology and Neurology (p=0.016), and between neurology and physical medicine (p=0.004). These results suggest that theses in the field of neurology are published more expeditiously, possibly because of the higher prevalence of high-impact journals dedicated to research on migraines and other headaches. However, citation counts did not demonstrate significant differences across disciplines (p=0.176) indicating that, despite variations in publication rates and journal indexing, the overall impact of these studies on the scientific community may be comparable (Table 3).

In the analysis of citation impact, the study with the highest citation count was a clinical trial on joint injections within the domain of physical medicine (n=388), followed by a clinical trial addressing migraines in the field of neurology (n=264). The third most frequently cited study was an animal experiment exploring neuromodulation conducted in the field of anesthesiology and reanimation (n=211). This distribution indicates that clinical trials, especially those focusing on prevalent conditions, such as musculoskeletal disorders and migraines, tend to garner substantial academic attention. Additionally, experimental studies on neuromodulation within anesthesiology and reanimation have made a significant contribution to the field.

A significant strength of this study is its comprehensive analysis of 10505 theses across major disciplines, facilitating a detailed examination of topic trends in algology-related theses. Additionally, the investigation of academic advising roles and indexing distributions offers a thorough perspective on the published works. However, this study had some limitations. First, National Thesis Center database aims to collect theses from university hospitals, excluding those written in health and research hospitals affiliated with the Ministry of Health until 2015 (9). This exclusion

TURAN et al.
Trends in algology theses in Türkiye

Bozok Tıp Derg 2025;15(2):218-225
Bozok Med J 2025;15(2):218-225

Table 1. Distribution of Thesis Advisors, Institutional Affiliation, Study Designs and Temporal Characteristics Across Specialties

		A&R n (%)	Neurology n (%)	PM&R n (%)
Thesis Advisor	Professor	81 (63.8)	80 (50.6)	19 (51.4)
	Associate Professor	36 (28.3)	50 (31.6)	13 (35.1)
	Assistant Professor	5 (3.9)	25 (15.8)	5 (13.5)
	Other	5 (3.9)	3 (1.9)	0 (0.0)
Institutional Affiliation	University	124 (93.2)	146 (90.7)	23 (62.2)
	Ministry of Health	9 (6.8)	15 (9.3)	14 (37.8)
Types of Study Designs	Case Series	17 (13.0)	3 (1.9)	0 (0.0)
	Correlation Study	5 (3.8)	6 (3.7)	1 (2.7)
	Cross-Sectional Study	17 (13.0)	48 (29.8)	2 (5.4)
	Case-Control Study	2 (1.5)	48 (29.8)	0 (0.0)
	Cohort Study	30 (22.9)	21 (13.0)	1 (2.7)
	Animal Experiment	26 (19.8)	3 (1.9)	0 (0.0)
	Clinical Trial	31 (23.7)	30 (18.6)	33 (89.2)
	Validity Study	3 (2.3)	2 (1.2)	0 (0.0)
Temporal Characteristic	Prospective	63 (48.1)	98 (60.9)	32 (86.5)
	Retrospective	59 (45.0)	45 (28.0)	3 (8.1)
	Other	9 (6.9)	18 (11.2)	2 (5.4)

A&R: Anesthesiology and Reanimation, PM&R: Physical Medicine and Rehabilitation

Table 2. Distribution of Study Topics Across Specialties

Study Topic	A&R n (%)	Neurology n (%)	PM&R n (%)
Neuromodulation	18 (13.5)	0 (0.0)	2 (5.4)
Joint Injections	16 (12.0)	0 (0.0)	6 (16.2)
Demographic Studies	9 (6.8)	0 (0.0)	0 (0.0)
Epidural Injections	27 (20.3)	0 (0.0)	6 (16.2)
Medical Treatments	22 (16.5)	1 (0.6)	3 (8.1)
Cadaver Studies	2 (1.5)	0 (0.0)	0 (0.0)
Pain Physiology	6 (4.5)	1 (0.6)	0 (0.0)
Fibromyalgia	5 (3.8)	1 (0.6)	2 (5.4)
Migraine and Other Headaches	6 (4.5)	139 (86.3)	0 (0.0)
Intradiscal Procedures	4 (3.0)	0 (0.0)	0 (0.0)
Sleep Studies	3 (2.3)	0 (0.0)	0 (0.0)
Validity Studies	3 (2.3)	1 (0.6)	0 (0.0)
Imaging and Diagnostic Methods	2 (1.5)	2 (1.2)	1 (2.7)
Peripheral Blocks	2 (1.5)	0 (0.0)	9 (24.3)
Cancer Pain	4 (3.0)	0 (0.0)	0 (0.0)
Sympathetic Blocks and Radiofrequency	3 (2.3)	0 (0.0)	0 (0.0)
Phantom Pain	1 (0.8)	0 (0.0)	0 (0.0)
Trigeminal Neuralgia	0 (0.0)	2 (1.2)	0 (0.0)
Carpal Tunnel	0 (0.0)	6 (3.7)	2 (5.4)
Diabetic Neuropathy	0 (0.0)	7 (4.3)	0 (0.0)
Other Neuropathies	0 (0.0)	1 (0.6)	0 (0.0)
Prolotherapy	0 (0.0)	0 (0.0)	6 (16.2)

A&R: Anesthesiology and Reanimation, PM&R: Physical Medicine and Rehabilitation

TURAN et al.
Trends in algology theses in Türkiye

Bozok Tıp Derg 2025;15(2):218-225
Bozok Med J 2025;15(2):218-225

Table 3. Publication Status, Index Distribution, Advisor Academic Titles and Citation Count by Specialty

Variables		A&R n (%)	Neurology n (%)	PM&R n (%)	Total n (%)	χ^2	p-value
Publication Status	Unpublished	98 (73.7)	98 (60.9)	22 (59.5)	218 (65.9)	6.079	0.048
	Published	35 (26.3)	63 (39.1)	15 (40.5)	113 (34.1)		
Index Type	SCI/SCIE	10 (28.6)	38 (60.3)	11 (73.3)	59 (52.2)	28.585	<0.001**
	ESCI	18 (51.4)	10 (15.9)	0 (0.0)	28 (24.8)		
	TR Dizin	7 (20.0)	13 (20.6)	1 (6.7)	21 (18.6)		
	Other International	0 (0.0)	2 (3.2)	3 (20.0)	5 (4.4)		
Academic Title	Professor	81 (63.8)	80 (50.6)	19 (51.4)	180 (55.9)	14.798	0.016*
	Associate Professor	36 (28.3)	50 (31.6)	13 (35.1)	99 (30.7)		
	Assistant Professor	5 (3.9)	25 (15.8)	5 (13.5)	35 (10.9)		
	Other	5 (3.9)	3 (1.9)	0 (0.0)	8 (2.5)		
	Total	127 (100.0)	158 (100.0)	37 (100.0)	322 (100.0)		
		Median (min-max)	Median (min-max)	Median (min-max)		H	p
Citation Count		2 (0-211)	6 (0-264)	2 (0-388)		3.480	0.176***
		Published n (%)		Unpublished (n %)	Total n (%)	χ^2	p
Academic Title	Professor	124 (58.8)		56 (50.5)	180 (55.9)	2.597	0.458*
	Associate Professor	62 (29.4)		37 (33.3)	99 (30.7)		
	Assistant Professor	21 (10.0)		14 (12.6)	35 (10.9)		
	Other	4 (1.9)		4 (3.6)	8 (2.5)		
	Total	211 (100)		111 (100)	322 (100)		

A&R: Anesthesiology and Reanimation, PM&R: Physical Medicine and Rehabilitation, min-max: minimum and maximum values, χ^2: chi-square value, H: Kruskal-Wallis test value *Pearson chi-square, **Fisher-Freeman-Halton exact test, *** Kruskal-Wallis test p-values written in bold indicate statistical significance, with p<0.05 considered statistically significant, SCI: Science Citation Index, SCIE: Science Citation Index Expanded, ESCI: Emerging Sources Citation Index

Table 4. Descriptive Statistics of Publication Duration by Specialty

	A&R (n = 35)	Neurology (n = 63)	PM&R (n = 15)	H	p	Comparison of Groups	p
	Median (min-max)	Median (min-max)	Median (min-max)				
Publication Duration	3 (0-13)	4 (0-14)	2 (0-7)	11,409	0,003*	A&R<Neurology	0.016**
						A&R-PM&R	0.201**
						Neurology>PM%R	0.004**

A&R: Anesthesiology and Reanimation, PM&R: Physical Medicine and Rehabilitation, min-max: minimum and maximum values, H: Kruskal-Wallis test value, * Kruskal-Wallis test, **Post-hoc test p-values written in bold indicate statistical significance, with (*p<0.05, **p<0.017) considered statistically significant

created a gap in the dataset. Changing the associate professorship criteria made the publication of these mandatory. Additionally, some health and research hospitals previously under the Ministry of Health joined universities through affiliation processes or the establishment of the Health Sciences University (14). Moreover, the study did not investigate whether thesis advisors were specialists in algology or whether the thesis authors pursued subspecialty training afterward. Therefore, the potential impact of theses in algology on the specialization process could not be assessed.

CONCLUSION

This study revealed significant interdisciplinary differences in the theses related to algology. Neurology exhibited the highest research activity and publication rates, whereas anesthesiology and physical medicine focused more on interventional pain management techniques. These findings suggest that enhancing interdisciplinary collaboration and providing structured academic support is essential for increasing the scientific visibility and impact of algology research.

TURAN et al.
Trends in algology theses in Türkiye

Bozok Tıp Derg 2025;15(2):218-225
Bozok Med J 2025;15(2):218-225

Acknowledgment

REFERENCES

1. Serdar Erdine. Girişimsel Yöntemlerin Tarihçesi. In: Algolojide Girişimsel Yöntemler. Expanded Second Edition. Erdine S, editor. Vol. 1. Nobel Tıp Kitabevleri; 2024. p.5.

2. Akpir K. History of Anesthesiology in Türkiye. Lokman Hekim Journal 2013;3(2):53-67.

3. Kayhan Z. Biyomedikal Yayın Yapmanın Güçlükleri. Anestezi Dergisi. 2007;15(3):141–8.

4. Yıldız E, Yıldız H, Alkan S, Arık Ö. Bibliographic Analysis of Postgraduate Theses Done in the Field of Local Anesthetics In Türkiye. Abant Medical Journal, 2022; 11(2): 274-82

5. Seringeç Akkeçeci N. Publication of Physiology Theses In Scientific Journals: Analysis of the Status From Turkey. Journal of Surgery and Medicine.2019;3(3):235-8.

6. Öğrenci A, Ekşi MŞ, Özcan-Ekşi EE, Koban O. From Idea to Publication: Publication Rates of Theses in Neurosurgery From Turkey. Neurol Neurochir Pol. 2016;50(1):45-7

7. Saydam MB, Özgülnar N, Darendeliler F. Tıpta Uzmanlık Tezi: Tartışılan Sürece Bir Araştırma Kapsamında Bakış. Yükseköğretim ve Bilim Dergisi, 2014(3), 176-81.

8. Sipahi OR, Çağlayan Serin D, Pullukçu H, Taşbakan M, Köseli Ulu D, Yamazhan T, et al. Publication Rates of Turkish Medical Specialty and Doctorate Theses on Medical Microbiology, Clinical Microbiology and Infectious Diseases Disciplines in International Journals. Mikrobiyol Bul. 2014:28;48(2):341–5.

9. Yılmaz Ferhatoğlu S, Kudsioğlu T, Yapici N. From Theory to Science: Publication Characteristics of Medical Thesis Composed by Anesthesia Reanimation Residents in Turkey. Journal of Cardio-Vascular-Thoracic Anaesthesia and Intensive Care Society. 2020;26(4):244-9.

10. Donmez A, Arslan G. Yayın Üretilmesindeki Güçlükler. Anestezi Dergisi. 2008;16(1):50–1.

11. Aydın E, Emre S, Celayir S. Çocuk Cerrahisi Uzmanlık Tezleri. Cocuk Cerrahisi Dergisi. 2011;24(2):67-70.

12. Bahadir CT, Yilmaz M. Factors Affecting the Publication Rate of Adult Endocrinology Theses in Türkiye: A Comprehensive Bibliometric Analysis. Med Bull Haseki. 2024;62(2):65-74.

13. Özturan İU, Sarbay İ. Scholarly Impact of the Dissertation Requirement for Postgraduate Medical Education and Factors Affecting Transformation into Publication:A Bibliometric Analysis of 2434 Dissertations in the Field of Emergency Medicine. Turk J Emerg Med. 2023;23(4):219-24.

14. Güc Z, Hancı V, Özbilgin S. Thesis Studies of Universities in Anaesthesiology and Reanimation Between 1970 and 2016: Retrospective Evaluation of Work Areas, Publishing Rates and Evidence Levels. Turk J Anaesthesiol Reanim. 2021 20;49(5):379–88.