

# Analysis of Publications from Turkey in Ophthalmology in Science Citation Index Journals: The Effect of Change in Criteria for Associate Professorship “Bilim Atf Dizini Dergileri”nde Oftalmolojide Türkiye’den Yapılan Yayınların Analizi: Doçentlik Kriterlerindeki Değişimin Etkisi

 Berkay AKMAZ<sup>a</sup>,  Deniz KILIÇ<sup>b</sup>

<sup>a</sup>Manisa City Hospital, Clinic of Ophthalmology, Manisa, TURKEY

<sup>b</sup>Health Science University Kayseri City Training and Research Hospital, Department of Ophthalmology, Kayseri, TURKEY

**ABSTRACT Objective:** The changing criteria for associate professorship in Turkey forced researchers to write more articles to the international journals. In this study, it was aimed to evaluate the number of authors in published articles from Turkey and to evaluate the distribution of institutions in which the study conducted. **Material and Methods:** For this retrospective, bibliometric analysis, the journals indexed in the 2019 Scientific Citation Index (SCI) for ophthalmology were reviewed. The articles submitted by Turkish researchers were included. The journal’s subspecialty, the date of publication, the number of authors, the institution where the study held and whether it was an animal study or not were recorded. **Results:** Between 01.01.2014 and 01.09.2019, a total of 654 original research articles were published in 31 SCI journals. Compared to 2016 and before, the number of authors decreased significantly in 2017 and after ( $p<0.000$ ). When the institutions were evaluated, more articles accepted from universities (344, 52.60%). When the articles were classified according to subspecialties, medical retina was the leader (212/654, 32.4%), followed by corneal and ocular surface diseases (170/654, 26.0%). **Conclusion:** With the change in the criteria of associate professorship in Turkey, articles were written with fewer researchers. Universities were the leaders of the institutions in publishing an article.

**ÖZET Amaç:** Türkiye’deki doçentlik için değişen kriterler araştırmacıları uluslararası dergilere daha fazla makale yazmaya zorladı. Bu çalışmada, Türkiye’den yayınlanmış makalelerde yazar sayısının değerlendirilmesi ve çalışmanın yürütüldüğü kurumların dağılımının değerlendirilmesi amaçlanmıştır. **Gereç ve Yöntemler:** Bu retrospektif, bibliyometrik çalışmada oftalmoloji alanında 2019 Bilimsel Atf Dizini’nde (SCI) endekslenen dergiler gözden geçirildi. Türk araştırmacılar tarafından yazılan makaleler dahil edildi. Derginin alt uzmanlığı, yayın tarihi, yazar sayısı, çalışmanın yapıldığı kurum ve bunun bir hayvan çalışması olup olmadığı kaydedildi. **Bulgular:** 01.01.2014 ve 01.09.2019 tarihleri arasında 31 SCI dergisinde toplam 654 orijinal araştırma makalesi yayınlandı. 2016 ve öncesine göre yazar sayısı 2017 ve sonrasında önemli ölçüde azalmıştır ( $p<0.000$ ). Kurumlar değerlendirildiğinde, üniversitelerden daha fazla makale kabul edildiği görüldü (344, %52,60). Makaleler alt uzmanlık alanlarına göre sınıflandırıldığında, tıbbi retina birinciyken (212/654, %32.4), bunu kornea ve oküler yüzey hastalıkları (170/654, %26,0) izledi. **Sonuç:** Türkiye’deki doçentlik kriterlerindeki değişiklikte birlikte daha az araştırmacı ile makaleler yazılmıştır. Üniversiteler, makalelerin yazıldığı kurum açısından ilk sırada yer almaktadır.

**Keywords:** Associate professorship criteria; ophthalmology; publications; Science Citation Index; Turkey

**Anahtar Kelimeler:** Doçentlik kriterleri; oftalmoloji; yayımlar; Bilimsel Atf İndeksi; Türkiye

Scientific productivity and its effects are recognized as an indicator of differentiation between countries.<sup>1</sup> It is often emphasized that these major differences depend on the institutional

settings in which scientific research is conducted.<sup>2</sup> Scientific writing and publication of the articles is one of the most essential indicators of the researcher's productivity.<sup>3</sup>

**Correspondence:** Deniz KILIÇ

Health Science University Kayseri City Training and Research Hospital, Department of Ophthalmology, Kayseri, TURKEY

**E-mail:** dnz\_kilic@hotmail.com



Peer review under responsibility of Türkiye Klinikleri Journal of Medical Sciences.

**Received:** 02 Feb 2020

**Received in revised form:** 19 Mar 2020

**Accepted:** 03 Apr 2020

**Available online:** 18 Jun 2020

2146-9040 / Copyright © 2020 by Türkiye Klinikleri. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

**TABLE 1:** International publication criteria for associate professorship before and after 2016.

2016 April and before	2016 December and after
To have been named as the first author on at least one original research article published in an SCI-Expanded, SSCI or AHCI journal related to the scientific area for which associate professorship is applied, and which has not been produced from the specialist or doctorate thesis of the candidate (this does not include sub-branch specialism theses), and to have published at least three original research articles after obtaining doctorate or medical specialist.	<p>1. Full research articles not produced from the doctorate thesis in the scientific area for which associate professorship is applied (not including letters to the Editor, abstract, review, or book review)</p> <p>a) Original research article published in an SSCI, SCI, SCI-Expanded, or AHCI journal (20 points)</p> <p>b) Original research article published in a journal scanned by an international index (other than the indexes stated in 1a) (10 points)</p> <p>c) Case presentation published in a journal as defined in 1a (5 points)</p> <p>With at least 20 points obtained as the leading author in the scope of 1a, at least 40 points must be obtained in this item.</p>

Associate professorship criteria have changed in Turkey in December, 2016. The criteria for publication of international articles before and after 2016 are summarized in Table 1. This change led Turkish researchers to write more articles and publish them in international journals. Through an investigation of which journals in the Science Citation Index (SCI) had accepted researches from Turkey in the field of ophthalmology, it gives an idea about areas where researchers should be directed. These investigations are generally concentrated on some details: where the studies had been conducted in a university or in a training and research hospital or in a state hospital; if the number of authors had changed over the years and weighting of animal experiments in these studies had been changed or not.

Although there have been previous studies involving the evaluation of the number of citations and impact factors, this is the first to evaluate the number of authors and institutions.<sup>1,4,5</sup>

## MATERIAL AND METHODS

For this retrospective, bibliometric analysis, 31 journals about ophthalmology indexed in the 2019 Citation Index were reviewed (Table 2). These journals were identified by examining the Clarivate Analytics, Web of Science Master Journal List. Publications from Turkey between 01.01.2014 and 01.09.2019 were included in the study for assessment. Only original research articles were included and any reviews, letters to editors, case reports, book chapters, clinical im-

ages or abstracts were excluded from the study. The study adhered to the declaration of Helsinki for clinical research.

The years 2014, 2015 and 2016 were analyzed as before the change in criteria, and 2017, 2018, and the first 9 months of 2019 were analyzed as the period after the change in criteria. Studies published from Turkey where the leading author was Turkish were included in the assessments.

Screening was conducted by two researchers separately scanning the websites of the journals between the identified dates to analyze each volume in the archives, and by scanning the PubMed, National Library of Medicine-National Institutes of Health utilizing the journal name. The data gained were collected with cross-controls. An enlist was made of which journal the article was published in, the date, the subject of the article, the number of authors, where the authors worked and whether it was an animal study. Subject groups were identified as glaucoma, cataract and refraction surgery, contact lens, corneal and ocular surface, optical refraction and low vision rehabilitation, strabismus, medical retina, uvea-Behcet, vitreo-retinal surgery, ocular oncology and oculoplastic surgery. The places of employment of the authors were classified as university, training and research hospital, private university, state hospital, private hospital, and private practice. Changes in the number of authors were analyzed according to the years. The areas in which animal studies were conducted were identified.

**TABLE 2:** Number of articles according to Science Citation Index journals and years in the field of ophthalmology.

Name of the journal	Publisher	Country	Number of articles according to years							Total
			2019	2018	2017	2016	2015	2014		
1 Acta Ophthalmologica	Wiley	USA	0	2	1	4	4	3	14	
2 American Journal of Ophthalmology	Elsevier	USA	2	0	2	4	3	4	15	
3 British Journal of Ophthalmology	BMJ	England	2	4	2	2	8	4	22	
4 Canadian Journal of Ophthalmology	Canadian Oph. Soc.	Canada	1	3	2	2	4	4	16	
5 Clinical and Experimental Ophthalmology	Wiley	USA	0	0	0	1	2	5	8	
6 Cornea	Lippincott Williams	USA	13	9	8	17	11	10	68	
7 Current Eye Research	Taylor-Francis	USA	23	6	26	25	24	15	119	
8 Experimental Eye Research	Elsevier	England	1	0	0	3	1	0	5	
9 Eye	Nature	England	10	8	16	16	7	10	67	
10 Graefes Archive for Clinical and Experimental Ophthalmology	Springer	USA	17	11	4	3	8	10	53	
11 Investigative Ophthalmology & Visual Science	Assoc. Research Vision Ophthalmology	USA	1	2	0	2	1	1	7	
12 JAMA Ophthalmology	Amer Medical	USA	0	0	1	0	0	1	2	
13 Japanese Journal of Ophthalmology	Springer	Japan	0	1	0	0	0	4	5	
14 Journal of Cataract and Refractive Surgery	Elsevier	USA	5	2	3	4	5	5	24	
15 Journal of Glaucoma	Lippincott Williams	USA	6	3	6	25	10	7	57	
16 Journal of Refractive Surgery	Slack Inc	USA	0	0	0	0	0	0	0	
17 Klinische Monatsblätter Für Augenheilkunde	Georg Thieme Verlag	Germany	0	0	0	0	0	1	1	
18 Molecular Vision	Molecular Vision	USA	0	1	0	2	0	2	5	
19 Ocular Immunology and Inflammation	Taylor-Francis	USA	27	14	4	13	10	3	71	
20 Ophthalmic and Physiological Optics	Wiley	USA	0	0	0	0	0	0	0	
21 Ophthalmic Research	Karger	Switzerland	1	1	2	4	3	2	13	
22 Ophthalmic Surgery Lasers & Imaging Retina	Slack Inc	USA	0	0	0	0	1	1	2	
23 Der Ophthalmologe	Springer	Germany	0	0	0	1	0	0	1	
24 Ophthalmologica	Karger	Switzerland	3	2	1	5	3	0	14	
25 Ophthalmology	Elsevier	USA	0	0	0	0	0	0	0	
26 Optometry and Vision Science	Lippincott Williams	USA	0	1	1	4	4	2	12	
27 Progress in Retinal and Eye Research	Pergamon-Elsevier	England	0	0	0	0	0	0	0	
28 Retina-The Journal of Retinal and Vitreous Diseases	Lippincott Williams	USA	8	14	4	7	5	7	45	
29 Survey of Ophthalmology	Elsevier	USA	0	1	1	0	1	2	5	
30 Vision Research	Pergamon-Elsevier	England	0	0	0	2	1	0	3	
31 Visual Neuroscience	Cambridge	USA	0	0	0	0	0	0	0	
Total Number			120	85	84	146	116	103	654	

## STATISTICAL ANALYSIS

The results are presented as percentages, mean and the number (%) of patients. A paired t-test was used to analyze the differences between mean numbers of authors according to years.  $p < 0.05$  was considered a significant difference for the results. Statistical analyses were performed using the Statistical Package for Social Sciences (SPSS v. 25, USA) software. As this was a bibliometric analysis, ethics committee approval was not required.

## RESULTS

A total of 654 original research articles were published in the 31 SCI journals in the field of ophthalmology between 01.01.2014 and 01.09.2019. In the distribution according to journal, 119 (18.20%) were published in the journal of current eye research, 71 (10.90%) in the journal of ocular immunology and 68 (10.40%) in the journal of cornea. In the specified study period, no article had been

accepted by the journal of refractive surgery, journal of ophthalmology and the journal of visual neuroscience.

The distribution of articles published according to year was seen to be 103 in 2014, 116 in 2015, 146 in 2016, 84 in 2017, 85 in 2018, and 120 in the 9-month period of 2019. The distribution according to journals and years is shown in [Table 2](#).

When the institution of the leading author was searched, there were seen to be more articles accepted from universities. Of the 654 articles in the field of ophthalmology, 344 (52.60%) were from state universities, 179 (27.40%) from training and research hospitals, 44 (6.70%) from private universities, 45 (6.90%) from state hospitals and 42 (6.40%) from private hospitals/private practices. The rate of articles originating from state hospitals and private hospitals/practices in the 3-year period before 2016 was 10.40% (38/365) and in the 3-year period after 2016, this rate increased to 17.00% (49/289) ([Table 3](#)).

When the articles were classified according to subspecialties, the most articles were seen to be on the subject of medical retina (212/654, 32.4%). This was followed by corneal and ocular surface (170/654, 26.0%), glaucoma (96/654, 14.7%), uvea-Behcet (51/654, 7.8%), vitreo-retinal surgery (37/654, 5.7%), cataract and refraction surgery (28/654, 4.3%), ocular oncology and oculoplastic surgery (19/654, 2.9%), optical refraction and low vision rehabilitation (19/654, 2.9%), strabismus (16/654, 2.4%) and contact lens (6/654, 0.9%) ([Table 4](#)).

When the number of authors was analyzed according to the year of publication, there was determined to be mean  $5.52 \pm 1.9$  authors in 2014,  $5.41 \pm 1.8$  in 2015,  $5.51 \pm 1.9$  in 2016,  $5.26 \pm 2.0$  in 2017,  $4.96 \pm 1.9$  in 2018 and  $4.62 \pm 1.8$  in the first 9 months of 2019 ([Figure 1](#)). The number reached 5.52 in 2016, and then gradually reduced to 4.62 in 2019. Compared to 2016 and before, the number of authors decreased significantly in 2017 and after ( $p < 0.000$ ). Therefore, the number of authors declining after 2016

**TABLE 3:** The number of articles according to the institute of the leading author and the year.

Institute of the Leading Author	Years (%)						Total
	2019	2018	2017	2016	2015	2014	
1 State university	59 (49.2)	37 (43.5)	36 (42.9)	77 (52.7)	73 (62.9)	62 (60.2)	344 (52.6)
2 Training and research hospital	32 (26.7)	23 (27.1)	30 (35.7)	49 (33.6)	22 (19.0)	23 (22.3)	179 (27.4)
3 Private university	10 (8.3)	9 (10.6)	4 (4.8)	6 (4.1)	8 (6.9)	7 (6.8)	44 (6.7)
4 State hospital	11 (9.2)	5 (5.9)	5 (6.0)	8 (5.5)	8 (6.9)	8 (7.8)	45 (6.9)
5 Private hospital/private practice	8 (6.7)	11 (12.9)	9 (10.7)	6 (4.1)	5 (4.3)	3 (2.9)	42 (6.4)

**TABLE 4:** Classification of subjects according to years.

Subjects	Years						Total (%)
	2019	2018	2017	2016	2015	2014	
1 Glaucoma	13	9	12	30	18	14	96 (14.7)
2 Cataract and refraction surgery	8	1	3	6	4	6	28 (4.3)
3 Contact lens	2	0	1	0	3	0	6 (0.9)
4 Corneal and ocular surface	25	19	27	40	31	28	170 (26.0)
5 Optical refraction and low vision rehabilitation	3	4	0	5	4	3	19 (2.9)
6 Strabismus	3	2	3	2	4	2	16 (2.4)
7 Medical retina	47	30	27	43	32	33	212 (32.4)
8 Uvea-Behcet	14	10	4	8	6	9	51 (7.8)
9 Vitreo-retinal surgery	4	6	7	10	7	3	37 (5.7)
10 Ocular oncology and oculoplastic surgery	1	4	0	2	7	5	19 (2.9)

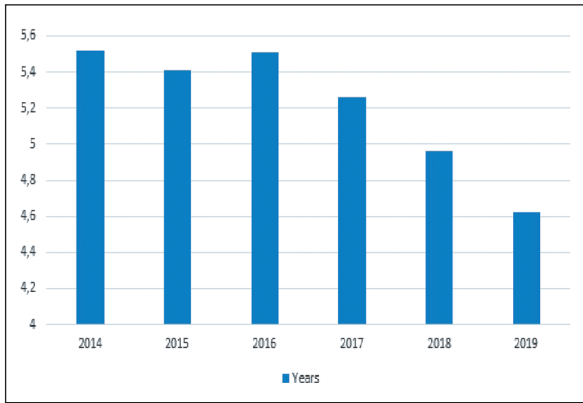


FIGURE 1: The mean number of authors according to years.

was statistically significant (2019-2016:  $p < 0.000$ , 2018-2016:  $p < 0.020$ , 2017-2016:  $p > 0.05$ ).

Of the total 654 articles examined, 40 (6.1%) were animal studies. In this period, 11 of these experimental animal studies were published in the journal of current eye research, constituting 9.24% (11/119) of all the studies published in the journal. The second journal considering animal studies most was the cornea journal with nine (13.23%) of the total 68 articles accepted being experimental animal studies. The subjects of the animal studies were corneal and ocular surface in 19 (47.5%) articles, medical retina in 10 (25.0%), the uvea-Behcet in 5 (12.5%), glaucoma in 4 (10.0%) and optical refraction and low vision rehabilitation in 2 (5.0%).

## DISCUSSION

To our knowledge, this is the first study examining the number and distribution of the international ophthalmic articles in the SCI journals, which was originated from Turkey. In our study, there was seen to be an interest in specific journals. A scientific publication is a proof of the scientist in her/his activity area.<sup>6</sup> The researchers also demand to publish in national or international journals to meet the conditions for promotion and to benefit from academic encouragement. Furthermore, it is a success for their studies to be in reputable journals so that a large number of clinicians can access it. There are hundreds or even thousands academic journals. It is important to select the journal that will provide the most benefit in these diver-

sities. At this stage, several criteria can be used; the reputation, relevance of the study, impact factor, the frequency at the point emerges, etc.<sup>7,8</sup> Additionally, during the submission process, the journals which are well-known in Turkey and are more closely followed have a significant influence on authors. Clinic tendencies, habits and the author's previous experiences of the article assessment process are important in the journal selection by the authors, who will also select journals according to those, which have previously accepted their own articles.<sup>7,9-11</sup>

The reasons that no articles were published in the visual neuroscience, ophthalmic and physiological optics and journal of refractive surgery were seen to be that these journals gave precedence to genetic, morphological, and molecular level studies conducted in countries with a developed scientific research culture, which is a lengthy process requiring high costs.

In the ratio of the institution where the studies were made, the increase towards universities was remarkable. Universities are in a more expedient situation than training and research hospitals and state hospitals, in terms of both faculty members and patient numbers. The time for faculty members to carry out academic studies and the facilities supplied by the institutions are more than local hospitals. Patients with health problems that cannot be clarified in state hospitals and private hospitals are referred, so that increasing the range of cases in university and training and research hospitals. Moreover, the foresight, experience and scientific ability of faculty members supporting the writing and publishing of articles constitute an advantage for authors.<sup>12</sup>

Academic experience is increased throughout the whole process, from the stage of the emergence of ideas in article preparation and to the submission to a specific journal. In the fields of medicine, biology and other natural sciences, Turkish universities are not at the desired level and considering the Nature Index, 70 articles constituted 1.16 per 1000 of the total 60473 articles in 2018 (<https://www.natureindex.com/annual-tables/2018/institution/academic/nature-science/countries-Turkey>). In the new criteria for associate professorship, the mandatory for giving a

lecture, led the doctors to work in universities or training and research hospitals. The decrease in articles from state hospitals and private hospitals/practices after 2016 can be attributed to these conditions.

In the classification made according to subspecialties, the field of medical retina was at the forefront.<sup>6,13,14</sup> Medical retina publications showing a tendency to genetic, surgical, and pathological studies were of areas, which have not yet been fully resolved, and the provision of opportunities for animal studies. When frequently seen diseases are evaluated, the retinal, corneal and ocular surface diseases are the leaders.<sup>11-14</sup> In the ophthalmological publications from Turkey, the articles which were most cited were seen to be mostly associated with retinal, corneal and ocular surface diseases.<sup>2,3</sup> With the increased importance of citations in the new criteria for associate professorship, authors have tended towards areas where more articles have been published and where they will be able to be cited.

The number of authors' has been in a trend of decrease after 2016 due to the change in criteria. Before 2016, the number of authors was not prominent in the academic scoring, but as this became considerable in the changed criteria, authors are now driven to carry up studies with fewer authors. In the development and progression of medicine, teamwork and discussion of different ideas within the team guide to articles of higher quality. Good science needs teamwork and varied ideas, and various points of view will raise the quality of publications. As research articles are seen as a clinical product, the number of authors in articles originating from universities and training and research hospitals has raised, though the number of authors has fallen in articles originating from private hospitals and state hospitals in particular. When the length of time is considered in the processes of the stages of planning and preparation of an article, journal assessment and publication, the effect on the number of authors of the change in criteria in 2016 is more plainly found out in the following period.

Animal studies have intensified in the field of corneal and ocular surface in particular and the ma-

ajorities have been studies evaluating the ototoxic effects of drugs and the determination of protective mechanisms. Experimental animal studies form a part of thesis studies and have a substantial role in the development of the research culture in Turkey. With a raise in experimental animal laboratories especially in universities, these types of publications would raise. No reduce in the number of authors of animal studies has been seen following the change in the criteria for associate professorship.

## CONCLUSION

With the change in the criteria for associate professorship, it has been seen that articles have been written with fewer researchers and there has been a decrease in the number of publications in the last 3 years. With the influence of the new associate professorship criteria, the number of authors reduces and 'scientific loneliness' becomes at the academic level. Scientific research and the writing of articles should not be restricted to only those working in universities and training and research hospitals. Improvements both in the criteria and in the research facilities should be made for those who work in state hospitals.

### Source of Finance

*During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.*

### Conflict of Interest

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### Authorship Contributions

**Idea/Concept:** Berkay Akmaz; **Design:** Berkay Akmaz; **Control/Supervision:** Deniz Kılıç; **Data Collection and/or Processing:** Berkay Akmaz; **Analysis and/or Interpretation:** Berkay Akmaz, Deniz Kılıç; **Literature Review:** Berkay Akmaz; **Writing the Article:** Berkay Akmaz; **Critical Review:** Deniz Kılıç; **References and Fundings:** Deniz Kılıç; **Materials:** Deniz Kılıç.

## REFERENCES

1. Bayramlar H, Karadağ R, Sarı Ü, Çakıcı Ö. [Turkish contribution to ophthalmic literature from 1990 to 2003]. *Turkish Journal of Ophthalmology*. 2014;44(6).
2. King DA. The scientific impact of nations. *Nature*. 2004;430(6997):311-6. [[Crossref](#)] [[PubMed](#)]
3. Nygaard LP. Publishing and perishing: an academic literacies framework for investigating research productivity. *Studies in Higher Education*. 2017;42(3):519-32. [[Crossref](#)]
4. Schlenker MB, Manalo E, Wong AM. Research productivity of Canadian ophthalmology departments in top 10 ophthalmology and vision science journals from 2001 to 2010. *Can J Ophthalmol*. 2013;48(1):46-55. [[Crossref](#)] [[PubMed](#)]
5. Schulz CB, Kennedy A, Rymer BC. Trends in ophthalmology journals: a five-year bibliometric analysis (2009-2013). *Int J Ophthalmol*. 2016;9(11):1669-75. [[PubMed](#)]
6. Bayramlar H, Çakıcı Ö, Karadağ R, Yıldırım A, Sarı Ü. [The most frequently cited 100 Turkish articles in ophthalmic literature]. *Medeniyet Medical Journal*. 2015;30(1):13-21. [[Crossref](#)]
7. Hamurcu M, Eren T. [Using analytic network process method for selection of the journal in the science citation index (SCI)]. *Harran University Journal of Engineering*. 2017;2:54-70.
8. Özgirgin N. [Why are international indexes are important?]. *Sağlık Bilimleri Süreli Yayıncılık*. 2010;19:37-43.
9. van Leeuwen J. Where to send your paper. *Dagstuhl Seminar*; 2012.
10. Uysal H. [The critical role of journal selection in scholarly publishing: a search for journal options in language-related research areas and disciplines]. *The Journal of Language and Linguistic Studies*. 2012;8(1):50-95.
11. Delirrad M, Rashidi A, Karimi S. A bibliometric analysis of toxicology publications of Iran and Turkey in ISI web of science. *Iranian Journal of Toxicology*. 2013;6(19):735-45.
12. Chabowski BR, Samiee S, Hult GTM. A bibliometric analysis of the global branding literature and a research agenda. *Journal of International Business Studies*. 2013;44:622-34. [[Crossref](#)]
13. Sweileh WM, Al-Jabi SW, Shanti YI, Sawalha AF, Sa'ed HZ. Contribution of Arab researchers to ophthalmology: a bibliometric and comparative analysis. *Springerplus*. 2015;4:42. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
14. Bayramlar H, Karadağ R, Kanra Gürtürk AY, Öçal A, Dag Y, Sarı U. Publication patterns of ophthalmology residency dissertations in Turkey. *Eur J Gen Med*. 2015;12(3):213-6. [[Crossref](#)]