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Predatory journal preference in the field of Orthopaedics and Traumatology in Turkey

Muhittin Sener [a], Cumhur Deniz Davulcu [a, *], Mesut Tahta [a], Izge Gunal [b]

[a] Katip Celebi University, Ataturk Training and Research Hospital, Department of Orthopaedics and Traumatology, Izmir, Turkey
[b] Private Practice, Izmir, Turkey

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ABSTRACT

Objective: The aim of this study was to determine the prevalence of predatory journals in Orthopedics and Traumatology and to investigate the relationship of these publications with the regulations of scientific fields made in recent years in Turkey.

Methods: The journals and publishers between the years 2000–2018 were screened and websites visited one by one on the basis of the orthopedic journals and publishers list determined as predators or possible predators. Orthopedic publications originated from Turkey was detected in these predatory journals. Article admissions, article processing charges, editorial and referee average response times were reviewed from the websites of journals. In addition, the effect of changing associate professorship application requirements and academic incentive regulation on the preference of predatory journals was examined.

Results: Between 2000 and 2018 years 1626 issues which can be reached in 282 journals were examined. 4795 articles were screened in 29 journals which have articles originated from Turkey. One hundred and six (2.21%) articles which originated from Turkey was reached in these publications. Average article processing charge was $865 ($ 0–1819). Fifty-nine of 106 (55%) articles originated from Turkey were found in only 4 journal. Journals which have articles originated from Turkey were not on the Web of Science list. The response time to the articles was between 2 and 6 weeks in these journals. After the change criteria in associate professorship in 2016, 3.32 fold increase in annual average number of publications originated from Turkey have been identified in predatory journals. After the change criteria in academic incentive regulation in 2015, 4.76 fold increase in annual average number of publications originated from Turkey have been identified in predatory journals.

Conclusion: The number of articles in predatory journals is increasing all over the world. This situation also valid in the field of Orthopaedics and Traumatology in Turkey. Authors should pay attention regarding predatory journals not only article processing charges but also very short evaluation period.

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Introduction

In 1884, “Centralblatt der Orthopädischen Chirurgie” in Germany and in 1889 in the United States “Journal of Bone and Joint Surgery” are the first academic journals published in the field of orthopedics.[1] According to Triggle et al., numbers in publishing are rapidly rising as an example with 5000 scientific publishing companies, 1.5 million articles published/year by $ 25 billion marketing price.[2]

In recent years, open access system has been gaining popularity addition to conventional publishing. In 2018, Piwowar et al. stated at their study that at least 27,9% of the scholarly literature is open access.[3] The purpose of the open access system is that the journals share the publications freely on the internet without any material and technical limitations. While there is a fee to pay by the authors at the stage of presenting the information, there are also open access publications which are completely free.

* Corresponding author.
E-mail addresses: senermuhittin@yahoo.com.tr (M. Sener), cumhurdd@yahoo.com (C.D. Davulcu), mesuttahta@gmail.com (M. Tahta), izge.gunal@gmail.com (I. Gunal).

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While the number of articles in open access journals was 247 in 1993, this number increased to 191,851 and the number of open access journals increased to 4769 in 2009.[4] Now in 2019, the number of open access journals states as 13,075 at DOAJ (Directory of Open Access Journals) web site.[5] Open access publishing, which provides free and unlimited access to scientific data over the internet, has become open to exploitation due to "Predatory" journals which have poor peer reviews, short review period and lack of transparency in article processing charge. "Predatory journal" term has gained popularity by Jeffrey Beall who is a librarian at the University of Colorado.[6] Beall shared predatory journal list with using more than 50 criteria in his personal blog in 2011, there were 18 publishers in Beall's list, which increased to 923 in 2016.[6] Witham et al. also reported that the number of publishers in Beall's list increased from 59 in 2012 to 1140 in 2017.[7] With last updates in 2019, the number of publishers in Beall's list increased to 1255.[6] The situation is more severe especially in some countries. In India, the number of articles published by five major journals, which have been suspected of predatory publishing, has increased threefold to 175,000 since 2013.[8] In Turkey, the number of journals included in Beall's list increased from 7 in 2010 to 41 in 2016.[9] Finally, in January 2019, two new journals were added and the number increased to 43.

The aim of this study is determine the preferation frequency of the journals described as predatory in the field of Orthopaedics and Traumatology and to investigate the relationship of these preferations with scientific regulations in Turkey.

Material and methods

This study was based on the list of predatory or possible predatory orthopedic journals and publishers created with scanning world literature some keywords about Orthopaedic and Traumatology by Yan et al in 2018.[10] In addition, 105 new journals were added to the study by an update on 30 January 2019 at Beall's site.[6] The journals and publishers mentioned in this list were screened individually by visiting the link given on the Beall's internet site. We tried to reach journals and publishers that could not be reached through the link provided in this site by using Google search engine. Thus, all journal issues between the years 2000–2018 and all orthopaedic publications originated from Turkey were determined. Publications from another branches (Physical Medicine, Neurosurgery, Neurology, etc.) that the first author is not an orthopedist were excluded from the study. In addition, the logos used in the main pages of the journals in Beall's list, their written descriptions and visuals about indexing were examined. On the other hand, web of science and pubmed databases were scanned and compared with the indexing data that these journals stated on their websites. All of Turkey originated publications was checked by scanning in PubMed database. Article admissions, article processing charges, editorial and referee average response times were reviewed on the websites of journals.

In order to determine the scientific publication criteria related to the academic upgrades in Turkey, the terms of application for associate professorship that established by The Interuniversity Council in 2016 and before and in 2017 and 2018 were checked on the website of the board.[11] The year of 2016 when the requirements of associate professorship changed in and the year of 2003 when Turkey originated first article published in predatory journals were accepted as date setpoints for our study. The effect of changing associate professorship application conditions on the preference of Turkey originated articles in predatory journals was examined between 2003 and 2018.

"Academic Incentive Allowance Regulations" which was aimed incentives payment in 2016 according to academic activities of academicians in 2015, approved by Council of Higher Education and published in the Official Gazette dated 18 December 2015.[12]

The year of 2015 when the regulation was published was taken into account. The effect of academic incentives on the choice of predatory journals was investigated as publications originated from Turkey between 2003 and 2018.

Results

In our study, it was determined that 3 of the 225 journals listed by Yan et al. were the same journal under different names.[10] In the internet search, 177 of the 222 journals were reached. The websites of the remaining 45 journals were either not reached at all or were directed to another site unrelated to the journal. In addition, 6 of the 105 new journals in Beall's list updated on 30 January 2019 that were newly added could not be reached from websites.[6] Only 2 of the 99 journals that could be reached with internet search were related to orthopaedics. The archives of these 2 journals were scanned and Turkey originated publications were not found. Thus, 1626 issues in these journals which could be reached between 2000 and 2018 were examined. The first publication originated from Turkey was found in 2003. There were 29 journals which have Turkey originated article between 2003 and 2018 years (Fig. 1) (Table 1). Turkey originated 106 articles reached in 4795 article scanned in 29 journals. The ratio of Turkey originated articles in all 29 journals was 2.21%.

Twenty of these 29 journals demanded article processing charge and only two journals did not charge any fees. No information about the article publication fee request could be reached on the seven journals website. The average article publication fee for the journals out of these 7 journals was $ 865 ($ 0–1819).

Fifty-nine of 106 (55%) publications originated from Turkey were found in only 4 journal. Fifty-nine of 2107 publications (2.8%) in these 4 journals were originated from Turkey between year 2003 and 2018.

Articles in only 10 of the 29 journals were indexed in the PubMed database when both were controlled from the web pages of the journals and from the PubMed database. Only 31 Turkey originated articles in 10 journals could be reached in Pubmed database. None of the journals with Turkey originated articles were on the Web of Science (Science Citation Index Expanded) list.

There were no information on the response time to the article on the website of 15 of 29 journals. In other 14 journals, the response time to the article was not clear but it was between 2 and 6 weeks.

The total number of articles was 60 in the 13-year period before the year 2016 in which the criteria for associate professorship were

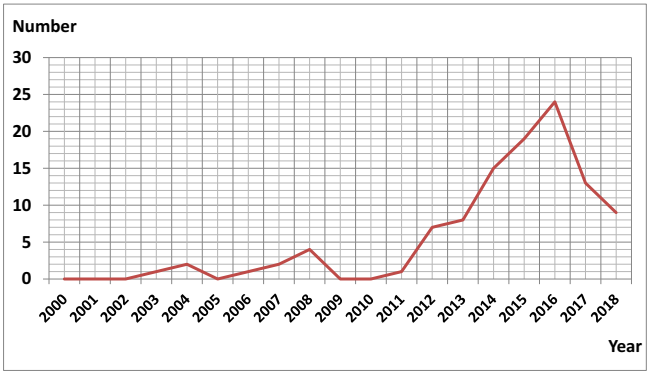

Fig. 1. Distribution of numbers of Turkey originated articles in predatory journals in Beall's list by years.

Table 1
Journals which published Turkey originated articles between 2003 and 2018 years in Beall's List.[6]

Arc Journal Of Orthopedics
The Open Orthopaedics Journal
Journal of Rheumatology and Orthopedics
Annals of Sports Medicine and Research
OA Orthopaedics
Journal of Spine
Annals of Orthopedics and Musculoskeletal Disorders
SM Journal of Orthopedics
International Journal of Orthopaedics
International Journal of Sports and Exercise Medicine
Journal of Clinical & Experimental Orthopaedics
Shafa Orthopedic Journal
Journal of Orthopedic Oncology
Journal of Arthritis
Research & Reviews: Orthopedics
World Journal of Orthopedics
EC Orthopaedics
The Open Spine Journal
Journal of Orthopedic Research & Physiotherapy
The Internet Journal of Orthopedic Surgery
Annals of Orthopedics and Rheumatology
International Journal of Research in Orthopaedics
OA Musculoskeletal Medicine
Orthopedics Research and Traumatology – Open Journal (ORTOJ)
Orthopedic & Muscular System: Current Research
International Journal of Orthopedics and Rehabilitation
Journal of Bone Research
Peertechz Journal of Orthopedics and Rheumatology
Open Journal of Orthopedics

changed, and the total number was 46 after 3 years from 2016. After 2016 in which the criteria for associate professorship were changed, the annual average number of Turkey originated articles in predatory journals has increased by 3.32 times.

The total number of articles was 41 in the 12-year period before the year 2015 in which Academic Incentive Allowance Regulation came into force, and the total number of articles was 65 after 4 years from 2015. After 2015 in which "Academic Incentive Allowance Regulation" came into force, the annual average number of Turkey originated articles in predatory journals has increased by 4.76 times.

Discussion

The journals that are considered to be predators are one of the controversial issues in the scientific world. They incorporate the hypotheses created by the authors into the world of science with incomplete peer review or no peer review. These publications, which do not go through a serious examination, may be likely to mislead science. It is important that they may cause irreparable problems and delay in scientific developments.

The risk of predatory publishing is spreading at an increasing pace all over the world. The number of predatory journals estimated to be around 10,000 against the number of legitimate academic journals of 30,000 in scientific field is noteworthy.[13]

Predatory journals have some points in common. Inadequate or no peer review, thrusting spam emails, not informing the journal article processing charge until the publication is sent to the journal, different forms of authorship-editing requests, extremely wide scope, broadcasting committees consisting of academicians with unknown or false qualifications, have similar names to the well-known journals or the journals published in previous years but not published today, emails including grammatical falses, promised short review periods, having websites unprofessionally designed, false or misrepresented contact addresses, deficiency, falsification or forgery of specified factors of influence, lack of transparency in the costs of writing or article processing, not to be included in the index specified by the journal, but to use these index images on the journal's website, the claim that it has a high impact factor are common points of these predatory journals.[10] The criterias for describing a journal as a "predator" are still not clear. According to Akça et al., not all journals in Beall's list should be considered as definitive predators.[9] And also they stated that there were a large number of predator or possible predatory journals not listed.

In this study, we aimed to determine the prevalence of journals in the field of Orthopaedics and Traumatology in Turkey and to investigate the relationship of these publications with the regulations made in Turkey in recent years.

In accordance with the "Terms and conditions of associate professorship" (in section 1, under subparagraph (a) of article 1, in force till 2016) it is obligatory to get a minimum of 40 points with a score of at least 20 as the main author for the original research article published in journals covered by Social Sciences Citation Index (SSCI), Science Citation Index (SCI), SCI-Expanded or Art and Humanities Index (AHCI).[11] There is an original research article published in journals which are scanned by international field indexes under subparagraph (b) of article 1. Twenty point from subparagraph (a) of article 1 and 10 point from subparagraph (b) of article 1 are subdivided according to the number of authors.[11] Since none of the predatory journals which have Turkey originated articles are in the scope of web of science, these publications may have been used only to provide the conditions in subparagraph (b) of article 1.

It has been adopted subparagraph (a) of article 1 state that minimum 40 points should be taken as well as to be the main author in at least one article by Interuniversity Council since April 2018.[14] Accordingly, it has increased the points for original articles published in journals scanned by the international field indexes defined in subparagraph (b) of article 1.[14] This has increased the advantage of points that can be obtained from journals that are considered as predators. In our study it was detected that after 2016 in which the criteria for associate professorship were changed, the annual average number of Turkey originated articles in predatory journals has increased by 3.32 times. We think that authors prefer predatory journals for relatively shorter reviewing periods and relatively easier acceptance of manuscripts. We suggest that as it stated for the criteria of associate professorship points ratio of the number of articles in journals covered by SCI-Expanded indexes should not only be reduced, but also should be increased.

In our study, it was evaluated between 2003 and 2014 when there was no regulation and between 2015 and 2018 when "Academic Incentive Allowance Regulation" provides payment to academic staff for their academic activities. After 2015 in which Academic Incentive Allowance Regulation came into force, the annual average number of Turkey originated articles in predatory journals has increased by 4.76 times. An increase in Turkey at the number of publications in predatory journals with the application of academic incentive was also stated in the study of Akça et al.[9] Seven of the 41 Turkey addressed journals on Beall's list (17%) were published after 2015.[9] With the regulation made in 2018 in the academic promotion regulation, some restrictions were introduced on the definition of international journals in academic incentive and predatory journals were intended to be excluded.[15] The effect of these regulations on predatory journals preference will be understood in the coming years.

Yan et al. stated that the response period was less than 1 month in 36.5% of the predatory journals.[10] It was known that the peer-review system of legitimate journals and the problems in the printing process extend the publication period of the article. This period can be approximately two years. This may cause the writers

to fall into the trap of predatory journals guaranteeing rapid evaluation at the expense of paying a high fee to publish their articles in a shorter period of time. The average response time of the journals we evaluated in our study ranged from 2 to 6 weeks. We believe that these long response processes have their own responsibility in their legitimate journals and they should produce a solution in this regard.

One of the misconceptions about predatory journals is that these are merely paid journals. According to Akça et al. every journal that wants article processing charge is not a predator.[9] There is also journals do not demand article processing charge in Beall's list as well as there are many journal that demand article processing charge but not in the list of predators. In the study of Yan et al., an average of article processing charges requested in legitimate journals were $ 2900, while in the journals that were described as predator was $ 420 (269–1027).[10] Shen et al. reported that the average article processing charge was $ 178 and the average submission period was 2–3 months in predatory journals.[16] The journals we reviewed in our study demanded an average of $ 865 ($0–1819). According to Akça et al. the authors should be suspicious of journals with both very short evaluation period and article processing charges.[9]

In the study of Yan et al., when the country distribution of the number of predatory journals related to musculoskeletal and orthopedics is considered, the United States comes first, followed by India, United Kingdom, United Arab Emirates, Canada, China, Iran and Pakistan.[10] Looking at the number of articles published by country (according to the author's address on the first row) and India comes first, followed by United States, United Kingdom, Japan, Iran, Turkey and Italy.[10]

In the study of Akça et al., 1319 journals listed on Beall's list were screened according to countries and India ranked first with 55%. Another important point in this study is Turkey's taking 2nd place.[9] Akça et al. reported that 41 journals originated from Turkey were found in Beall's list.[9] In the study of Akça et al. also stated that 10 of the 41 (24.39%) Turkey originated journals in the Beall's list are included in DergiPark and 12 (29.26%) journals originated from the university.[9] Two new journals originated from Turkey were added to the Beall's list with the latest update in January, 2019.[6] Thus, the number of Turkey originated journals increases to 43. One of these 2 journals belongs to a university and is hosted by TUBITAK (The Scientific And Technological Research Council Of Turkey), and the other journal belongs to an official society in Turkey. We think that these situations increase the doubts about the reliability of the Beall's list.

Limitation of our study is using list of Beall, which defines the journals as predators and has not yet reached a consensus on its validity and reliability. Journal publishing and editorial behaviors are dynamic. In other words, a journal described as a predator may not meet these criteria after a few years. Another limitation of our study is that orthopedic publications in general medical journals have not been investigated. Additionally, we cannot associate the increase in the number of predatory articles with the only legal regulations. It is possible to explain due to the increase in the number of population, academicians and the scientific studies in the country, and the easy access to international networks.

Many unconscious academicians find themselves in the predatory journals pool for many secondary reasons with the infinite speed of today's science world, and even worse they are not being aware of this. Although few studies have been conducted on this issue in Turkey, we estimate that the awareness rates are still very low. In a study of Christopher et al. on awareness about predatory journals in 2015, it was found that the journal submitted by the authors was considered as predatory at a rate of 23% and that only 4.8% were aware of Beall's list.[17]

Conclusions

The number of articles in predatory journals is increasing all over the world. This situation also valid in the field of Orthopaedics and Traumatology in Turkey. We think that, it is important to raise awareness among academicians about predatory journals that carry a commercial concern and unfortunately characterized by unclear criteria. Authors should pay attention regarding predatory journals not only article processing charges but also very short evaluation period.

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