IRIS - Archivio Istituzionale dell'Università degli Studi di Sassari

Predatory Open Access in Rehabilitation

Questa è la versione Post print del seguente articolo:

Original
Predatory Open Access in Rehabilitation / Manca, Andrea; Martinez, G; Cugusi, L; Dragone, D; Mercuro, G; Deriu, Franca. - In: ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION. - ISSN 0003-9993. - 98:5(2017), pp. 1051-1056. [10.1016/j.apmr.2017.01.002]

Availability:
This version is available at: 11388/174574 since: 2018-06-09T10:12:24Z

Publisher:

Published
DOI:10.1016/j.apmr.2017.01.002

Terms of use:

Chiunque può accedere liberamente al full text dei lavori resi disponibili come “Open Access”.

Publisher copyright

note finali coverpage

(Article begins on next page)

23 April 2024

Predatory Open Access in Rehabilitation

Andrea MANCA[1]*PhD, MSc**, Gianluca MARTINEZ[1]*BSc**, Lucia CUGUSI[2]*PhD, MSc*, Daniele DRAGONE[1]*MSc*, Giuseppe MERCURO[2]*MD*and Franca DERIU[1]*MD, PhD*

1 Department of Biomedical Sciences, University of Sassari, Sassari, Italy

2 Department of Medical Sciences and Public Health, University of Cagliari, Cagliari, Italy

* A. Manca and G. Martinez have equally contributed to this work.

Running title: Predatory journals in Rehabilitation

Corresponding author:

Franca Deriu, MD, PhD

Department of Biomedical Sciences

University of Sassari

Viale San Pietro 43/b

07100 - Sassari, Italy

Phone: +39 079228294

Fax: +39 079228156

Email: deriuf@uniss.it

Acknowledgments The authors acknowledge their debt to Paul Gottlieb for editing the manuscript

Conflicts of interest The authors declare that they have no conflict of interest

FundingThis research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Abstract

Increasingly scholars and researchers are being solicited by predatory “open access” journals seeking manuscript submissions and abusing the author-pays model by charging authors with publishing fees without any or proper peer review. Such questionable editorial practices are threatening the reputation and credibility of scholarly publishing. To date no investigation has been conducted onthis phenomenon in the field of rehabilitation. The present study attempts to identify specific predatory journals operating in this field, to quantify the phenomenon and its geographical distribution. Beall’s list has been used to this end which, although not perfect, is a comprehensive and up-to-date report of predatorypublishers. Of the 1,113 publishers on the list, 59 journals were identified, for a total of 5,610 published articles. The median number of articles published by each journal was 21 and the median amount of the article processing charges was 499 USD. Only 1 out of 59 journals was included in the Directory of Open Access Journals while 7 (12%) were indexed by PubMed. Most of the publishers were based in India (36%) followed by the USA (25%) and Pakistan (5%)and 25% were without a verifiable address.

The data indicate that the threat of predatory publishing in rehabilitation is real. Physiatrists, physiotherapists, researchers and academics operating in this field are advised to use the tools available so as to recognize predatory practices before considering publishing in open-access journals.

Keywords: Scientific publishing; Open Access; Predatory journals; Article processing charge; Publicationethics; Rehabilitation

List of abbreviations

APCs	Article processing charges
DOAJ	Directory of Open Access Journals
USD	United States Dollars

Introduction

Predatory open access refers to those journals that betray the genuine open access model by charging the authors publication fees without peer review services and transparent editorial procedures.[1,2] Almost every day scholars and researchers receive electronic invitations soliciting manuscript submissions. Generally article fees are not mentioned in the invitation emails nor prominently indicated in the journal websites so thatinvoicesclaimed by the publisher prior to publication are often unexpected.[3]Inexperienced researchers in the early phase of their careers are particularly vulnerable to these opaque editorial operations and are easy prey for predatory journals.[4]Whilst claiming to be open access,these journals are rarely indexed by legitimate and reputable databases[5]and are not registered in the Directory of Open Access Journals (DOAJ).[6]The DOAJ is a community-curated online directory that indexes and provides access to high quality, open access, peer-reviewed journals with a funding model that does not charge readers or their institutions for access. According to Jeffrey Beall, an academic librarian and a researcher at the University of Colorado in Denver, the number of predatory publishers has risen exponentially over the years from 18 in 2011 to 693 in 2015.[7] The number has now grown to over 1,100 in late 2016.[8] Several concerns are associated with predatory publishing. For example, with fake or minimal peer-review research of no value can be published as if it were real science.[9]Unfortunately, nearly all legitimate journals have no tools for detecting when fake research has been cited in submissions .

As a result, these unchecked and low-quality articles arecited in genuine journals,which indirectly and unfairly legitimizes them, and thus pollutes the scientific records.[9]This is of specific concern for biomedical literature, where most of the predatory journals are active.[10]Since public health depends on findings generated from peer-reviewed research, corrupt science may impact on clinical research as well as on clinical practice.[9]It isimperative for clinicians, patients and researchers to rely on findings obtained from genuine scientific research rather than false and non-transparent publishing by predatory journals.[1,11]A number of countermeasures are proposed to tackle the problem.[12]Researchers and respectable journals should avoid citing articles published in predatory journals, and academic libraries should dismiss metadata for such publications and eliminate predatory publishers from their online catalogues.[1] Moreover, established scholarly databases should identify and remove journals and publishers that use false-front or non-existent peer review.[12]The first step in prevention is to increase awareness amongst scholars and researchers of this clear and present danger to the scientific community and to their curricula.[3,13]These considerationsalso applyto the rehabilitation field, where no investigation has been conducted so far to analyze this phenomenon.

As information to researchers and practitioners this study attempts to identify those specific journals targeting rehabilitation issued by predatory publishers,to analyze the magnitude of the phenomenon and its geographical distribution.

Methods

Beall's list[8]has been employed in this work (accessed on October 5, 2016).This list is a regularly updated report of potential, possible, or probable predatory open-access publishersbased upon a set of stringent criteria.[8,9]A second list by Beallwas also searched for questionable standalone journals, i.e. single journals not released by a specified publisher.[14]Each item listed was accessed and journals were retained if the title included terms pertinent to the field (*rehabilitation*

OR*neurorehabilitation*;*physical therapy*; *physiotherapy* OR *physiotherapies* OR *physiotherapeutic*). Each journal website was checked to obtain additionalspecific information: *a)*the publisher's country of origin; *b)*how the article processing charges (APCs) are specified in the authors' guidelines;*c*) the amount of the requested APCs; *d*) the total numberof articles published by the journal from the first issue to October 31st 2016. Two of the authors (AM and GM) independently counted the articles for each journal. When differences arosea consensus number was agreed or, where necessary, a third author (LC) contributed to determining the final number. According to Shen and Bjork (2015),[7] all the APCs were counted based on the prices listed at the time of data collection. The currency used was the US Dollar (USD) and the prices given in currencies other than the USD were converted according to the exchange rate on Currency Converter.[15]

For country of origin, any USA/European address displayed in the publishers' websites was verified using Google Maps and 3D Street View, following the methodology used by Shen and Bjork (2015).[7] In case an unverifiable address or a non-credible location was provided, thecountry of origin was classified as "impossible to determine".

Data collected were exported into thestatisticalsoftwareand descriptive analyses were performed. Data are reported by mean and standard deviation or median and standard error.

Results

Among the 1,113 suspected publishers presented in Beall's list,44 were identified as pertinent to the rehabilitation field, with a total number of 57 journals issued.A further 2 journals were identified in the second list by Beall for standalone predatory journals. The journals' names and their respective publishers are detailed in Table 1. Only 1 of the identified items was also indexed in the DOAJ (Table 1, Line 20). Notably, despite not being listed in the DOAJ, 7 journals (12%) were indexed on the PubMed database.

As detailed in Figure 1 the majority of publishers were based in India (36%), followed by the USA (25%), Pakistan (5%) and the United Kingdom (3%). The country of origin of approximately 25% of the publishers was classified as “impossible to determine”.

Most of the journals (69%) provided details on APCs in a dedicated section of the website, whereas 22% did not mention APCs at all (Figure 2). The average level of publication fees per article obtained from the 40 journals (out of 59) reporting APCs was 751±568 USD (median: 499 ± 74 (range 96-2,000). When stratifying by the amount of APCs, approximately half of the journals (52.5%) charged authors fees of up to 500 USD, with 30% demanding APCs higher than 1,000 USD.

As to articles published, 37out of 59 journal websites (63%) contained articles, 18 (30%) did not contain any articles, whilst 4 (7%) were not accessible due to dysfunctional websites. The total number of articles cumulatively published by the 37 journals with articles was 5,610. The average number of articles per journal was 152±540 (median: 20 ± 18; range 1-3,305).However, 1 of the above-mentioned37 journals itself published 3,305articles (Table 1, Line 36), thus heavily influencing the mean. If this journal is considered as an outlier, the average number of articles per journal would drop to a more realistic 67±90 (median: 21 ± 12; range 1-300).Notably, 27 out of the 37 journals with articles (73%) were found to publish up to 50 articles whereas only 8 journals (22%) issued more than 100 articles.

Discussion

The findings of the present investigation identified the occurrence of predatory publishing in the rehabilitation field, as shown by the relatively high number ofsuspected journals(*n*=59) identified. This number is only slightly lower than the approximately 90 indexed journals overall operating in rehabilitation (*n* = 60), physiotherapy (*n* = 12) and physical therapy (*n* = 15), according to the Scopus-based SCImago Journal & Country Rank portal.[16]Thepredatory journals identified in this

study are about twice the number of the genuine open access journals pertinent to rehabilitationindexed in the DOAJ (*n* = 29, of which 22 in rehabilitation, 6 in physiotherapy, 1 in physical therapy).It is noteworthy that only one predatory journal itemized in Beall's blacklist was also listed in the DOAJ, thus reflecting the stricter criteria for inclusion imposed by this register since 2014.[17]

On country of origin of publishers, we observed that the majority of the journals were operated in India, followed by the USA, with almost 1 out of 4 publishers' headquarters "impossible to determine". When considering publishers declaring American/European addresses,a certain degree of caution is advisable since several of them may falsely displayAnglophone headquarters in order to increase their scientific reputation and credibility. Our data are likely to confirm this misbehavior in the rehabilitation field as many alleged American addresses were found to match a sunny highway intersection or a storehouse in pathless woodlands in the rural North Carolina or, at best aPost-office box.Overall, these findingsare in line with those recentlyreported by a longitudinal study acknowledging India as the country with the highest number of predatory journals (27%), followed by North America (17.5%), Asia without India (11.6%) and Europe (8.8%), with roughly 1 out of 4 publisher's locations being impossible to determine.[7]Interestingly, the two studies observed similar findings despite analyzing the predatory phenomenon with a different observation focus. Indeed, while the report by Shen and Björk (2015)[7]covered almost all the scientific disciplines (i.e., mathematics, arts and humanities, biomedicine, earth sciences, etc), the present study was centered on the subdiscipline of rehabilitation/physiotherapy/physical therapy. The similarity of the findings between the studies in terms of geographic distribution, seems to suggestthat the diffusion of predatory publishing in rehabilitation may reflect a relatively stable pattern regardless of the scientific discipline under consideration.

On publication fees charged to authors, we estimated an average APC of 751 USD, with high standard deviation suggesting high variability. The median observed (499 USD) may serve as a more realistic estimate of the amount of the handling fees analyzed in the present study. The

amount of APCs is in line with previous investigations on predatory publishing, which reported an average fee of 636 USD[18] and 800 USD.[7] However, Shen and Björk (2015) [7] observed a trend to decrease in the amount of APCs over time, with fees around 800 USD until 2012, eventually falling to 104 USD in the years 2013-2015. In line with the abovementioned reports our data confirm that the APCs demanded by predatory journals are lower thanthe average fee of 900-1,000 USD required by open access journals indexed in the DOAJ[19,20]as well as lower than the average 1103 USD fee (median: 649; range: 97-1737) ofopen access journals in the rehabilitation field listed in the same directory. Overall, these figures are far lower than those charged by non-open access rehabilitation journals that allow authors to make their article freely available (on average, 3000 USD).

The present findings on the occurrence and spread of predatory publishing in rehabilitation indicate that this phenomenon is real and potentially dangerous not only to professionals but to the whole scientific community.The majority of questionable journals are operated in developing countries, and that researchers from India, Asia and Africa are the most commonly published authors in these venues.[7,9,18] However, their publications do not remain confined to such areas since predatory journals have unfortunately recently landed on PubMed. As an example, in a subdiscipline like rehabilitation, 12% of the identified journals were retrievable on that database. Considering the popularity of PubMed and PubMed Central, concerns are raised on their criteria for inclusion. Conversely, according to Beall (2016)[12] scholarly databases need to raise the bar for acceptance, eliminating journals and publishers that use flawed peer-review practices.

The threat of predatory publishing in the rehabilitation field is concrete, particularly for naïve researchers willing to build a foundation of publications, and who may become easy prey for predatory journals.[4,21] Predatory publishing may also represent a shortcut for those unscrupulous researchers wishing to pad out their curricula in order to bolster their academic achievements.[21,22]In both cases, namelythe gullible orthe dishonest scholar,prevention may be the best cure against the rise of predatory journals.[13]For this reason Vinny et al. (2016)[3] suggested that the average

researcher should be made more aware of the problem.Accordingly, Manca et al. (2016)[13] highlighted the need to develop educational programs specifically designed to increase scholars' awareness of predatory editorial policies and of the risks for their curricula and careers. To tackle this issue, several methodological tools have been proposed such as using scientific social networks to identify and share information on deceptive publishers, eliminating those that use flawed peer-review practices and excluding metadata for predatory publications.[1,12]Researchers and respectable journals should avoid citing articles published in predatory journals. Finally, apart from invited commentaries or experts' editorials, journals indexed in legitimate databases do not send personalized invitations to submit articles,[10]in contrast to the means used by predatory publishers to approach scholars.[1]

Study limitations

The present findings heavily rely on the blacklists created and updated by Jeffrey Beall.[8,14] Although such lists are praised as the ultimate defense against the shady editorial practices of predatory publishers, they are criticized for personal bias and inability to discern between newcomer journals (which may simply lack experience in the publishing industry) and real predators.[22] However, while these lists are not perfect, they are thorough, detailed and regularly updated.[10]

Another limitation may reside in the manual counting of the articles and in the localization of the publishers' headquarters by Google Maps. While these steps were conducted independently and double-checked by at least two of the authors, the simplicity of the methods employed may allowthe possibility of error. However, the same methodologies have already been employed in previous investigations aimed at describing the predatory phenomenon in general or over specific scientific subdisciplines.[7,18,21] Moreover, considering that 7% of the journals' websites proved not to be

accessible, our study may underestimate the real magnitude of predatory publishing in rehabilitation and so the present results should be viewed as preliminary.

Finally, this study does not provide any evidence on the quality of peer review in these journals since no reliable information on the quality of the review process could be derived from journals' websites. A survey among researchers in the field regarding their personal experience with predatory publishers may help to obtain this information.

Conclusions

This study provides objective information on predatory publishing in rehabilitation as well as a list of suspected journals operating in this area. Physiatrists, physiotherapists, researchers and academics operating in the field of rehabilitation are advised to use the available tools to recognize predatory practices before considering publishing in open-access journals.

References

1. Beall J. Predatory publishers are corrupting open access. Nature. 2012 Sep 13;489(7415):179. doi: 10.1038/489179a.
2. Bohannon J. Who's afraid of peer review? Science. 2013 Oct 4;342(6154):60-5. doi: 10.1126/science.342.6154.60.
3. Vinny PW, Vishnu VY, Lal V. Trends in scientific publishing: Dark clouds loom large. J Neurol Sci. 2016 Apr 15;363:119-20. doi: 10.1016/j.jns.2016.02.040.
4. Bartholomew RE. Science for sale: the rise of predatory journals. J R Soc Med. 2014 Oct;107(10):384-5. doi: 10.1177/0141076814548526.
5. Shamseer L, Moher D, Maduekwe O, Turner L, Barbour V, Burch R, et al. Comparison of characteristics potential predatory journals with subscription and open access journals. A cross sectional study. REWARD EQUATOR Conference, Edinburgh. September 28–30, 2015.
6. Directory of Open Access Journals https://doaj.org/toc
7. Shen C, Björk BC. 'Predatory' open access: a longitudinal study of article volumes and market characteristics. BMC Med. 2015 Oct 1;13:230. doi: 10.1186/s12916-015-0469-2.
8. Scholarly Open Access https://scholarlyoa.com/publishers
9. Beall J. Medical publishing triage - chronicling predatory open access publishers. Ann Med Surg (Lond). 2013 Jun 22;2(2):47-9. doi: 10.1016/S2049-0801(13)70035-9.
10. Moher D, Srivastava A. You are invited to submit…. BMC Med. 2015 Aug 4;13:180. doi: 10.1186/s12916-015-0423-3.
11. Bhad R, Hazari N. Predatory journals in psychiatry: A note of caution. Asian J Psychiatr. 2015 Aug;16:67-8. doi: 10.1016/j.ajp.2015.06.008.
12. Beall J. Predatory journals: Ban predators from the scientific record. Nature. 2016 Jun 15;534(7607):326. doi: 10.1038/534326a.

13. Manca A, Cugusi L, Dragone D, Deriu F. Predatory journals: Prevention better than cure? J Neurol Sci. 2016 Nov 15;370:161. doi: 10.1016/j.jns.2016.09.052.
14. Scholarly Open Access https://scholarlyoa.com/individual-journals
15. Currency Converter http://www.currencyconverterrate.com
16. SCImago Journal & Country Rank http://www.scimagojr.com
17. Van Noorden R. Open-access website gets tough. Nature. 2014 Aug 7;512(7512):17. doi: 10.1038/512017a.
18. Ezinwa Nwagwu W, Ojemeni O. Penetration of nigerian predatory biomedical open access journals 2007-2012: A bibiliometric study. Learned Publishing. 2015; 28: 23-34.
19. Solomon DJ, Björk BC. A study of open access journals using article processing charges. J Am Soc Inf Sci Tec 2012; 63: 1485–95. doi:10.1002/asi.22673.
20. Morrison H, Salhab J, Calvé-Genest A, Horava T. Open access article processing charges: DOAJ survey May 2014. Publications. 2015;3:1–16. doi:10.3390/publications3010001.
21. Maddy AJ, Tosti A. Predatory Journals in Dermatology. Br J Dermatol. 2016 Sep 17. doi: 10.1111/bjd.15072.
22. Butler D. Investigating journals: The dark side of publishing. Nature. 2013 Mar 28;495(7442):433-5. doi: 10.1038/495433a.

Figure legends

Figure 1

The distribution of predatory journals in rehabilitation (n = 59) by geographic regions

Figure 2

Modalities of notification of the publication fees to authors, as displayed in the journal's website

Table 1 – List of suspected journals operating in the rehabilitation field

Journal	Publisher
1. American Journal of Health and Rehabilitation	World Scholars
2. Annals of Orthopaedics, Trauma and Rehabilitation	Scientific Literature
3. Archives of Sports Medicine and Physiotherapy	Peertechz
4. Asian American Rehabilitation Research Journal	Asian and American Research Publishing Group
5. ASIO Journal of Nursing & Physiotherapeutic Research	Albert Science International Organization
6. British Open Journal of Rehabilitation	British Open research Publications
7. CRESCO International Journal of Physiotherapy and Rehabilitation	CRESCO Online Publishing
8. Health and Rehabilitation	Smith & Franklin Academic Publishing Corporation
9. Indian Journal of Physiotherapy and Occupational Therapy	Institute of Medico-Legal Publications
10. International Journal of Neurologic Physical Therapy	Science Publishing Group
11. International Journal of Neurorehabilitation	OMICS International
12. International Journal of Orthopedics and Rehabilitation	Savvy Science Publisher
13. International Journal of Physical and Rehabilitation Medicine	Journal Network
14. International Journal of Physical Medicine & Rehabilitation	OMICS International
15. International Journal of Physical Therapy and Rehabilitation	Graphy Publications
16. International Journal of Physical Therapy and Rehabilitation Sciences	Integrated Science Publications
17. International Journal of Physiotherapy	Integrated Science Publications
18. International Journal of Physiotherapy & Occupational Therapy	Trans Stellar
19. International Journal of Physiotherapy (IJPHY)	*Standalonejournal*
20. International Journal of Physiotherapy and Research	IMED Research Publications
21. International Journal of Rehabilitation Sciences	*Standalonejournal*
22. International Journal of Sports medicine and Physiotherapy	McMed International
23. International Physical Medicine and Rehabilitation Journal	MedCrave
24. Jacobs Journal of Physical Rehabilitation Medicine	Jacobs Publishers
25. Jacobs Journal of Physiotherapy and Exercise	Jacobs Publishers
26. Journal for Physiotherapy	Photon Foundation
27. Journal of Exercise Science & Physiotherapy	MedInd
28. Journal of Neurology and Neurorehabilitation Research	Allied Academies
29. Journal of Neuroscience and Rehabilitation	ScienceScript
30. Journal of Novel Physiotherapies	OMICS International
31. Journal of Novel Physiotherapy and Physical Rehabilitation	Peertechz
32. Journal of Novel Physiotherapy and Rehabilitation	Heighten Science Publications
33. Journal of Orthopedic Research & Physiotherapy	HSOA Herald Scholarly Open Access
34. Journal of Physical Medicine, Rehabilitation & Disabilities	HSOA Herald Scholarly Open Access
35. Journal of Physical Therapy and Health Promotion	Bowen Publishing
36. Journal of Physical Therapy Science	J Stage

37. Journal of Physiotherapy & Occupational Therapy	Trans Stellar
38. Journal of Physiotherapy and Physical Rehabilitation	OMICS International
39. Journal of Physiotherapy and Rehabilitation Research	ASD Publisher
40. Journal of Rehabilitation Robotics	Synergy Publishers
41. Journal of Yoga & Physical Therapy	OMICS International
42. Journal of Yoga and Physiotherapy	Juniper Publishers
43. JSM Physical Medicine and Rehabilitation	JSciMed Central
44. MOJ Yoga & Physical Therapy	MedCrave
45. Neurophysiology and Rehabilitation	Edelweiss Publications
46. Open Journal of Therapy and Rehabilitation	Scientific Research Publishing
47. Physical Medicine and Rehabilitation International	Austin Publishing Group
48. Physical Medicine and Rehabilitation Journal	Scientific Literature
49. Physical Medicine and Rehabilitation Research	Open Access Text
50. Physical Therapy and Rehabilitation	HOAJ Herbert Open Access Journals
51. Rehabilitation Medicine	American Association for Science and Technology
52. Sports Medicine and Rehabilitation	OPR Science
53. Sports Medicine and Rehabilitation Journal	Remedy Publications
54. The Internet Journal of Rehabilitation	Internet Scientific Publications
55. The Open Rehabilitation Journal	Bentham Open
56. Universal Open Physiotherapy Journal	Adyan Academic Press
57. Universal Open Rehabilitation Journal	Adyan Academic Press
58. Universal Open Therapy and Rehabilitation Journal	Adyan Academic Press
59. US Open Physiotherapy Journal	American Research Publications