

Peer Review File

Article information: <https://dx.doi.org/10.21037/atm-21-6793>

Reviewer Comments

Summary

The authors should be congratulated for their publication which makes use of strong statistical analysis as well as useful graphic displays of information. The authors also did a good job of accounting for recent changes in publications due to COVID-19 by doing additional subgroup analysis to look at these studies separately. The publication is overall well written. I only have 2 major comments

Reply:

Thanks a lot for your kind comments. We appreciate all the efforts you've done to improve the study.

Major comments

1. Introduction: I am wondering how the four TFMJ were chosen specifically. In the introduction it is stated that these journals are “standing an extraordinary position in Chinese academic circles”. Are the TFMJ listed as such because of the impact factors alone? Or are they regarded highly for another reason? Perhaps the rationale why these journals are considered TFMJ could be explained, or maybe a reference could be given from another source which lists these 4 journals as TFMJ. I think if you are looking purely at impact factors, the top 4 journals would not be these listed, with # 4 being Nature Medicine (53.44) which has a higher impact factor than BMJ (39.89). So I'm wondering why BMJ was favored over Nature Medicine. Perhaps the scope of the journal is broader, the fact that those journals have been published for a longer period, or maybe it is something specific to the prestige of being published in these journals in China. Or maybe the BMJ impact factor has dropped recently, but has been historically higher than Nature Medicine? I am not sure really, just guessing the reasons but I hope an explanation can be given for readers. I think any explanation would suffice, really it is just not clear at the moment.

Reply:

Thank you. It's a very interesting question why the NEJM, Lancet, JAMA, and BMJ were collectively known as the TFMJ. I learned about the term when I was just a medical student. Unfortunately, we didn't find the exact reason based on our best literature review. There are some papers mentioning the TFMJ [1,2] but didn't give the answer either. We agree with most of your reasoning. Rome was not built in a day. Presumably, the reputation greatly roots in their long publishing history, with NEJM, Lancet, JAMA, and BMJ being created in 1812, 1823, 1883, and 1840, respectively.

The broad range of scope and high standard of publication also play an important role. Nature Medicine on the other hand was only born in 1995. And CA: A Cancer Journal for Clinicians with the highest impact factor of up to staggering 508.7 was created in 1950. Even the impact factor per se is much younger than the TFMJ, which was first proposed in 1960 and gaining popularity in recent years.

1. Ye B, Du T, Xie T, Ji J, Zheng Z, Liao Z, Hu L, Li Z. *Scientific publications in respiratory journals from Chinese authors in various parts of North Asia: a 10-year survey of literature. BMJ OPEN. 2014;4(2):e4201.*
2. Casino G, Rius R, Cobo E. *National citation patterns of NEJM, The Lancet, JAMA and The BMJ in the lay press: a quantitative content analysis. BMJ OPEN. 2017;7(11):e18705.*

Changes in the text:

Prompted by your points, we have added our speculation in the manuscript: “Presumably, the reputation greatly roots in their long publishing history, with NEJM, Lancet, JAMA, and BMJ being created in 1812, 1823, 1883, and 1840, respectively. The broad range of scope and high standard of publication also play an important role.” (see marked manuscript, Page 5-6, line 82-86)

2. Regarding Letters: Your study found that Letters were the most frequent publication type however there is no discussion as to why this is the case. I have some ideas but I am not entirely sure if this would apply to your findings. Letters can be a common publication type in the TFMJ anyways, so your findings could be representative of the typical publication mix found in these journals (I’m not sure but I am browsing the journals now, and this seems plausible). The other explanation is that Letters may represent a quick form of correspondence. I am also wondering if Letters would also require less funding to be published (or no funding), given the 29% funding rate of included studies, so this could be an easier path to publish some brief findings or commentary if funding is limited (not sure if this is true – just an idea). There could be other reasons which I have not thought of. I am simply brainstorming, but I would prefer that you come up with a few sentences about Letters and why these may have been so common as part of the discussion section.

Reply:

Thank you for this important observation. The popularity of Letter may be the result of multiple factors, and you've provided us with a good number of possible reasons. Letter to the editor is generally a short form of communication, and it can be written on every topic which attracts the attention of the readers. The most frequent reason for writing a letter to the editor is to comment on a published article.

From the point view of author: The length of the letter is short and it does not have to be formal, making it much easier to write than original research. In letter, the authors can just talk about their own opinions or speculations, even without any data

and statistics. Funding is usually not required. And Letter is typically supervised directly by the editor without external review, allowing for faster publication with a relatively low publication threshold.

From the point view of Journal: The number of letters indicates to a certain extent the popularity of a journal. Importantly, for the calculation of impact factor, Letter can add citations to the nominator but not counted as “citable” in the denominator, driving up the impact factor. [1]

1. Falagas ME, Alexiou VG. The top-ten in journal impact factor manipulation. *Arch Immunol Ther Exp (Warsz)*. 2008;56(4):223-226.

Changes in the text:

We discussed the popularity of Letter in the Discussion part per your suggestion. “The length of Letter is short and it does not have to be very formal with data and statistics, making it much easier to write than original research. Funding is usually not required. And Letter is typically supervised directly by the editor without external review, allowing for faster publication with a relatively low publication threshold. The journals also seem to have enough motivation to publish Letter. The number of letters indicates to a certain extent the popularity of a journal. Importantly, for the calculation of impact factor, Letter can add citations to the nominator but not counted as “citable” in the denominator, driving up the impact factor. (24) To evaluate the academic level, the Letter appears to be insignificant. Therefore, we conducted a subgroup analysis that included only original research.” (see marked version, Page 15, line 289-298)

Minor comments

3. Abstract methods: The date of the search query should be stated, as well as the date range for included data. I believe the search window was from January 1, 2011 to December 31, 2020. The query date is unclear as well, it could have been December 31 or a later date (e.g. in January, February, etc). You should also put the query date in the main Methods section (around lines 89-92)

Reply:

Thank you. The date information was indicated in the Methods as follows: “Data were retrieved and downloaded manually from the PubMed database (<http://www.ncbi.nlm.nih.gov/pubmed/>). A total of 1188 publications were identified using the following search strategy: (“BMJ (Clinical research ed.)” [Journal] AND “China” [Affiliation] AND **2011/01/01:2020/12/31 [Date-Publication]**) OR (“Lancet (London, England)” [Journal] AND “China” [Affiliation] AND **2011/01/01:2020/12/31 [Date-Publication]**) OR (“JAMA” [Journal] AND “China” [Affiliation] AND **2011/01/01:2020/12/31 [Date-Publication]**) OR (“The New England Journal of Medicine” [Journal] AND “China” [Affiliation] AND **2011/01/01:2020/12/31 [Date-Publication]**)”. There were no other restrictions, such as study type, abstract availability, language of publication, etc. The full text was downloaded if necessary.”

4. Introduction, lines 52-56 – regarding the material about Den Xiaoping and the “national strategy to invigorate China through science and technology” is relevant, however a citation could be added here. I think anywhere in this section would be appropriate. If there is no relevant journal article, perhaps a government publication or even a news article would be sufficient, if done properly and allowed by the journal editorial staff.

Reply:

Thank you. Deng Xiaoping's comments are included in the book “Selected works of Deng Xiaoping”. I am not sure what is the appropriate form of citation. May the editor help us with this point?

5. Introduction: “The TFMJ have always led the development of Medical Science” – I think this phrase could be referenced or clarified considering is a strong statement to make, in particular because of the word “always”. Personally I agree with this statement, but I think for a research paper it should not simply be taken as fact. Maybe their high impact factors is a sign of high quality as well as influence in the medical field in development of new ideas.

Reply:

To avoid potential controversy and ensure the accuracy, we have deleted the sentence. Thank you.

Comments for clarity

6. Throughout: The term “researches” could be replaced with “research” throughout the manuscript – technically I think “researches” is accurate, however it is almost never used in its plural form like this so it seems a bit strange. It also looks like “researchers” so I found myself mis-reading it a few times.

Reply:

Done, thank you.

7. Abstract conclusion: “The presence of Chinese scholars in the TFMJ has grown increasingly” – I think either “grown” or “increased” would be fine, whereas both words sounds redundant. I think “increasingly” could be deleted.

Reply:

Done, thank you.

8. Abstract conclusion: “An obvious Matthew effect in China's high-level scientific researches was demonstrated, which should attract enough attention” – the word

“obvious” should be deleted because it was only apparent after conducting this study, so most readers would not realize the Matthew effect to be obvious. The phrase “which should attract enough attention” also seems to not be needed -- I am not sure what this means here and this phrase could be deleted or changed. Perhaps you could say “suggestive of higher quality research output at larger, higher rated institutions” instead. I have the same comments for the main manuscript conclusion, in which this phrase is repeated again.

Reply:

Thank you. We have deleted the word “obvious” and the phrase “which should attract enough attention”.

9. Introduction: “The influencing factors (IFs) of the TFMJ in 2021 were 91.246, 79.321, 56.272, and 39.89” – I believe the standard term is “impact factor” instead of “influencing factor” but I could be wrong. Also, it is not clear why some have three decimal places/digits, while the last one only has two. Maybe it should say “39.890”? or maybe a number was forgotten or it was rounded up. Either way I recommend keeping this consistent.

Reply:

Thank you. We have corrected the term impact factor, with values being rounded to keep consistency.

10. Results, Line 125 – “Specifically, only 14 articles were published in 2011, and it did not exceed 100 before 2018” – I recommend replacing “it” with “the number of publications per year” if this is what is meant

Reply:

Thank you. We have replaced “it” with “the number of publications per year” as suggested.

11. Figure 4 A – It’s not clear why image A has labels that are not in English, then image B has labels in English. It would be nice if both had English labels.

Reply:

Thank you. The data visualization was performed with R software. The heat map (Figure 4A) was created with “remapH” package, in which the map was coded in Chinese. Unfortunately, the codes cannot be modified and we haven’t found an English alternative package. However, the map demonstrates the spatial imbalance of publications clearly. We think the language label here should not be a big problem.

12. Limitations, Line 329 – “Bares” should be “bears”

Reply:

Done, thank you.

13. Discussion, Line 263 – “The encouraging news is that” – I think this phrase can be deleted while the remainder of the sentence can be kept. While this may be exciting for the research authors, it seems to sensationalize the results and makes the discussion read more like an advertisement or news article. I think the tone should remain objective throughout the paper.

Reply:

This is a very important reminder. Thank you. We have deleted it per your kind suggestion.

14. Discussion, Line 302 – “As Deng Xiaoping once put it, “Some people and some regions are allowed and supported to get rich first, and we encourage those ‘early birds’ to help the lagging behind”.” – I think this quote may be deleted. I’m not sure Deng Xiaoping was talking specifically about research output in this context. If he was, perhaps the sentence could be kept.

Reply:

Thank you. We have confirmed the authenticity of the comments by Deng Xiaoping.

15. Discussion, Line 304 – “Indeed, the coastal areas have taken the lead in development, including scientific research” – It may not be immediately clear what is important about the coastal areas in China but this could be quite relevant to your discussion on the Matthew effect. I imagine these are higher-income regions with larger, more highly-ranked and better-funded hospitals/institutions? (I am wondering – not sure if this is totally true) However if this is the case, I think this should be made more clear for readers who are not familiar with China.

Reply:

Thank you. The modified sentence now reads: “Indeed, the coastal areas have taken the lead in economic development, promoting scientific research as a result. These are higher-income regions with larger, more highly-ranked and better-funded hospitals/institutions.”. Of note, the comments by Deng Xiaoping here are for economic development. We believe that his economic policy triggered the economic progress of coastal regions, which then led to the medical care improvement.

Changes in the text:

Please see marked version, page 16, line 330-332.

16. Conclusion, Line 338 – “The presence of Chinese scholars in the TFMJ has grown increasingly, but there is still much room to improve.” – I think the word “improve” could be changed, or maybe you could say “much room for growth”. Also, the word

“increasingly” is not needed because it is redundant with “grown.”

Reply:

Done, thank you. The modified sentence now reads: “The presence of Chinese scholars in the TFMJ has increased, but there is still much room for growth.”