



How was the *Diabetes Metabolism Journal* added to MEDLINE?

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Introduction

What is the role of academic journals, especially medical journals? As of June 2019, 41 of the 264 journals represented in the Korean Association of Medical Journal Editors (15.5%) were listed in the Science Citation Index Expanded (SCIE) or Social Sciences Citation Index (SSCI), corresponding to 33.3% of all 123 SCIE- or SSCI-registered journals published by Korean academic associations and/or societies in the field of science and technology. Medical journals from Korea have advanced to the international level very rapidly. However, the impact factor, which simply reflects a high number of citations, cannot be interpreted as an inherent measure of academic progress. Instead, it is important to reconsider the proper role of journals and to establish a solid basis for further directions of development. A major role of an academic journal is to open a window for academic exchange among researchers, and another role is to contribute to advances in the public interest. For medical journals, another task is to contribute to the advancement of medicine through research results. Starting in March 2018, I have worked on the application of the *Diabetes Metabolism Journal* (DMJ) to MEDLINE as a member of the journal's task force for applying to MEDLINE. In this essay, I will briefly summarize my efforts and the processes required to add DMJ to MEDLINE, a goal that was accomplished in December 2019.

Why Was the Application to MEDLINE Pursued?

The DMJ is the official journal of the Korean Diabetes Association. The journal was launched in 1972 and was published under the title the *Journal of the Korean Diabetes Association* until 2007. In 2011 (volume 35), the title was changed to its present one, the DMJ. The aims of DMJ are to contribute to the cure of and education about diabetes mellitus, and the advancement of diabetology through the sharing of scientific information on the latest developments in diabetology among members of the Korean Diabetes Association and other international societies [1]. DMJ has been indexed in SCIE since October 2017.

However, DMJ was not satisfied with only being listed in SCIE; instead, we worked towards a new goal of being listed in MEDLINE. The meaning of being a MEDLINE journal may be its

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payoff in terms of the brand of the journal, as being listed in MEDLINE means that a medical journal is officially certified by the US National Medical Library as having reached a certain level. This is because the review process of the US National Library of Medicine Literature Selection Technical Review Committee (LSTRC) for journals that apply for MEDLINE listing emphasizes the highest level of publishing and research ethics. LSTRC members evaluate the quality of articles based on the originality of the research, the appropriateness of the research methods, and the contribution to the relevant academic field. In other words, the standard of the LSTRC for evaluating a journal is to see whether research was conducted in accordance with correct research ethics, whether academically high-quality studies were published, and whether the journal is published according to established publishing standards. These items ultimately coincided with directions of development that journals pursue, especially for DMJ, which has begun to emerge as a high-quality international academic journal.

Efforts to Make the Journal Eligible for Inclusion in MEDLINE

Originality

When we started to prepare for this process in 2018, there were already 29 MEDLINE journals on diabetes, and as northeast Asian journals, the *Journal of Diabetes* from China and the *Journal of Diabetes Investigation* from Japan had already been listed in MEDLINE. For a journal to be listed in MEDLINE, it is necessary to emphasize its uniqueness and to demonstrate that the MEDLINE database can be enriched by listing the journal. The prevalence of diabetes in Asia is increasing rapidly, and the proportion of individuals of Asian descent in the United States is also high. It is also known that Asians display different patterns in terms of the pathogenesis of diabetes and the reactivity of anti-diabetic agents compared to Western people. Among MEDLINE-listed journals, there are few top-tier journals covering high-quality research on metabolic diseases and diabetes from the Asia-Pacific region. Therefore, we emphasized that DMJ focuses on studies analyzing pathogenic characteristics of diabetes in Asians and on establishing diabetes guidelines for Asians. When analyzing the articles published in DMJ, a significant proportion described different metabolic characteristics between Asians and Western populations [2].

We also emphasized the fact that the readership of DMJ is very wide, and that it publishes a considerable amount of material with public interest that can be reflected in health care policies [3]. The scope of DMJ includes health policies and environmental considerations for improving the medical cir-

cumstances of patients with diabetes. Thus, we expect DMJ to be essential reading not only for researchers and clinicians, but also for health administrators and policy-makers who contribute to the healthcare environment for patients with diabetes. Furthermore, DMJ serves as a good information delivery vehicle for educators and students. Its importance to users, such as researchers, clinicians, educators, administrators, allied health professionals, students, and policy-makers, was another point to address in the MEDLINE journal selection process [4]. On the MEDLINE listing application, we also provided specific examples of original articles relevant to the metabolic characteristics of Asians [5], subjects that can be linked to health care policies [6], environmental issues such as endocrine disruptors [7], and next-generation artificial intelligence and new diabetes treatment technologies [8].

Ethical issues

Since MEDLINE attaches great importance to the ethical policies of academic journals, it was necessary to describe the ethics policy lucidly in the submission rules and on the website of the journal. First of all, in accordance with International Committee of Medical Journal Editors's 'Recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals' [9], we additionally revised the following points: regulations on the author's role and necessary procedures for changing authorship; a more concrete statement regarding conflicts of interest; the process of obtaining consent and the importance of including the institutional review board approval number; the processes for dealing with duplicate submission, plagiarism, data forgery, and tampering; the procedures for handling secondary publications; the clinical data sharing policy, and the procedure for handling authors' complaints and dissatisfaction. Furthermore, in the review process, individual papers are closely examined to ensure that all published papers comply with the above ethical regulations.

The journal's compliance with the 'Principles of transparency and best practice in scholarly publishing' co-declared by COPE (Committee on Publication Ethics), DOAJ (Directory of Open Access Journals), WAME (World Association of Medical Editors), and OASPA (Open Access Scholarly Publishers Association) is especially important in the MEDLINE review process. In particular, adherence to the Principles of Transparency and Best Practice in Scholarly Publishing is a prerequisite for the MEDLINE review process [10]. The Best Practice consists of 16 items (<https://doaj.org/bestpractice>), and compliance with each item of the Best Practice was described on the journal homepage.

Journal's Efforts to Maintain Its Quality after Being Indexed in MEDLINE

The National Medical Library regularly tracks whether MEDLINE journals adhere to the Best Practice. If there are negative changes in scientific quality or the editorial process, a journal may be removed from the MEDLINE database. For example, in August 2017, the United States National Library of Medicine excluded 78 academic journals from MEDLINE. Therefore, it is necessary to publish the journal in a consistent manner and to maintain high-level research content, with full compliance with research, review, and publication ethics standards. After receiving permission for MEDLINE listing, there was an additional process for maintaining eligibility. The LSTRC recommended clarifying the following points to improve the standing of the journal: the credentials of editorial board members, the role of editors, the type of peer review including single- or double-blind review, the process of handling editors' manuscripts, and the procedure for dealing with complaints or appeals. All recommendations were addressed after adding appropriate policies and instructions in the journal web site and the print version. Furthermore, documentation of institutional review board approval should be uploaded during the submission period for studies with human subjects to maintain compliance with research ethics. Funding statements and acknowledgments should also be separately described to clarify the funding more lucidly.

Conclusion

To be listed in MEDLINE and to maintain the listing, a journal must publish high-level research conducted through ethical processes. A fair and professional review process is required to guarantee a certain level of ethics and quality of each article. This may be considered to be the minimum requirement for all medical journals. The continuing effort to be listed in MEDLINE was worthwhile to pursue, and the application process to MEDLINE provides a good incentive to promote a journal to top-tier status. The application process also provided me with an excellent opportunity to see the journal's performance more precisely.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

References

1. Jeong IK. Diabetes and Metabolism Journal in 2020: good to great. *Diabetes Metab J* 2020;44:1-2. <https://doi.org/10.4093/dmj.2020.0032>
2. Han SJ, Boyko EJ, Kim SK, Fujimoto WY, Kahn SE, Leonetti DL. Association of thigh muscle mass with insulin resistance and incident type 2 diabetes mellitus in Japanese Americans. *Diabetes Metab J* 2018;42:488-95. <https://doi.org/10.4093/dmj.2018.0022>
3. Rhee SY, Chon S, Ahn KJ, Woo JT; Korean Diabetes Prevention Study Investigators. Hospital-based Korean Diabetes Prevention Study: a prospective, multi-center, randomized, open-label controlled study. *Diabetes Metab J* 2019;43:49-58. <https://doi.org/10.4093/dmj.2018.0033>
4. Huh S. How to add a journal to the international databases, Science Citation Index Expanded and MEDLINE. *Arch Plast Surg* 2016;43:487-90. <https://doi.org/10.5999/aps.2016.43.6.487>
5. Hwang YC, Fujimoto WY, Kahn SE, Leonetti DL, Boyko EJ. Higher high density lipoprotein 2 (HDL2) to total HDL cholesterol ratio is associated with a lower risk for incident hypertension. *Diabetes Metab J* 2019;43:114-22. <https://doi.org/10.4093/dmj.2018.0053>
6. Joo EY, Lee JE, Kang HS, et al. Frequency of self-monitoring of blood glucose during the school day is associated with the optimal glycemic control among Korean adolescents with type 1 diabetes. *Diabetes Metab J* 2018;42:480-7. <https://doi.org/10.4093/dmj.2018.0018>
7. Liu B, Lehmler HJ, Sun Y, et al. Association of bisphenol A and its substitutes, bisphenol F and bisphenol S, with obesity in United States children and adolescents. *Diabetes Metab J* 2019;43:59-75. <https://doi.org/10.4093/dmj.2018.0045>
8. Cappon G, Vettoretti M, Sparacino G, Facchinetti A. Continuous glucose monitoring sensors for diabetes management: a review of technologies and applications. *Diabetes Metab J* 2019;43:383-97. <https://doi.org/10.4093/dmj.2019.0121>
9. Huh S. How to prepare Endocrinology and Metabolism for reapplication to MEDLINE. *Endocrinol Metab (Seoul)* 2017;32:58-61. <https://doi.org/10.3803/EnM.2017.32.1.58>
10. Huh S. Adherence of the Annals of Pediatric Endocrinology & Metabolism to the Principles of Transparency and Best Practice in Scholarly Publishing. *Ann Pediatr Endocrinol Metab* 2018;23:1-3. <https://doi.org/10.6065/apem.2018.23.1.1>