A head and two wings: essential parts of world-class international journal

Yong-Geun Choi

Biostatistics, Graduate School of Clinical Dentistry, Korea University, Seoul, Korea

Having mixed experience of a reviewer of manuscripts submitted and an author of manuscripts submitting to some world-class international clinical journals, I found the honorable reputation of journal entirely depends on the quality of published articles. Of course, the quality of published articles is up to the journal's review system.

World-class international journals have in common one head and two wings of review system: The head is clinical applicability. The right wing is statistics. The left wing is science.

Firstly, clinical applicability of information included in conclusion section of submitted manuscript should be clearly established. The possibility of clinical application of information published in journal is closely associated with the quantity of international readers of journal because busy clinicians want to read journal to acquire highly applicable clinical information and cutting-edge modalities to improve the quality and scope of their health care. Still, journal is one of the major sources of clinical information for international clinicians to keep abreast with the rapid development of modern clinical dentistry. The internet has already removed the geographical barriers to get access to information as long as it is written in English. If a journal succeeds to enfold these new clinical information with prompt applicability, many international readers will subscribe to the journal via internet regardless of their residence.

Secondly, the possibility of information supported by data due to *chance* alone in submitted manuscript should be

Yong-Geun Choi

Biostatistics, Graduate School of Clinical Dentistry, Korea University, 126-1, Anam-dong 5ga, Seongbuk-gu, Seoul 136-705, Korea TEL: +82-2-3394-7555 FAX: +82-2-3394-6875 E-mail: mosby1@naver.com

© This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/3.0/), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

scrutinized. Many things can happen due to chance alone because we live in the jungles of randomness. Variation in sampling may result in either presence of statistically significant information or absence of statistically significant information. Any new clinical information is useless if it is supported by data due to chance alone. It means that application of information published in journal to readers' professional health care may not produce the same outcome reported in journal. Expertise in *statistics* is essential to play the right role of examining the chance aspect of data in submitted manuscript.

Thirdly, the level of *precision and accuracy of data* collected to test the manuscript's hypothesis should be evaluated with care. Variation in measurement always deteriorates the level of precision. No measurement can avoid the influence of variation. Reliability of clinical information in journal depends on the level of precision of data supporting the clinical information. Contamination of data with systematic bias which occurs always in certain situation should be investigated thoroughly. Credibility of clinical information in journal is also determined by the level of accuracy of data. Expertise in *scientific methodology* is a must to take on the excellent role of the left wing.

Finally, every submitted manuscript must get through these three parts to be published. When a head and two wings of a bird play the correct role, a bird can fly to the right destination which is a world-class journal.

I must ask one challenging question to the editor who aspires to transform the domestic journal into an international quality journal.

Does the journal's review system have a head and two wings?