# EDITORIAL

## Peer-reviewed dental literature

Peer-reviewed journals are essential for the development of evidence-based dentistry and the creditability of our profession. In biomedical fields, such journals have three major goals: to bridge the gap between research and dental practice, to apply the best available evidence gained from scientific method to clinical decision making, and to share experiences and knowledge among clinicians.

In 2010, there are 74 peer-reviewed dentistry-related journals. Only 15 (less than a quarter) are published monthly, while most are published either bimonthly or quarterly. The dermatology and anesthesiology fields may share similarities with dentistry. There are 48 dermatology and 25 anesthesiology journals—over a third of each category is published monthly. The larger number of dentistry-related publications may correspond with the larger number of dentists practicing (in the United States) today. Similarly, dental journals publish more articles annually (approximately 7,000 dentistry compared to 5,000 dermatology and 3,500 anesthesiology papers).

However, while examining the number of times manuscripts from dental journals are cited in other publications, the results are less than satisfactory.

One might argue that authors of other disciplines do not cite dentistry-related articles.  This is unclear: Although there are pathologies specific to dentistry (for example, caries or periodontal disease), the oral cavity and face are both connected to the rest of the body and share similar physiologies.

A related issue is the quality of evaluation methods employed to evaluate journals. One of the most popular methods is the journal's impact factor. This is calculated by dividing the number of citations (how many times articles from a certain journal were cited) by the numbers of articles published by the evaluated journal. Dental journals' impact factor is quite low (1.759, range 0.038 to 3.565 in 2010) in comparison with dermatology (2.279, range 0.059 to 6.270 in 2010) or anesthesiology (2.764, range 0.071 to 5.486 in 2010). To improve these statistics, dental literature must be recognized by other disciplines.

Although impact factors are an important tool, a rapid increase thereof may be the result of bias in the method, not solely based on improvement in quality and recognition. Since the calculation includes the most recent 2 or 5 years, a significant reduction in the number of the published manuscripts may elevate the impact factor for several years. Another bias comes from self-citations (citations in the same journal that are counted for impact factor calculations). For example, one leading dental journal's impact factor is around 3.0; however, if we exclude self-citations, it drops to 1.4. This is an extreme case in which a high impact factor does not reflect recognition of the journal's quality by other disciplines or even by readers of other journals in the same field.

The review process is the best tool for editors to evaluate submitted manuscripts. It must be unbiased and performed by professionals. To ensure this and reduce potential conflicts in *Quintessence International*, reviews are anonymous (the reviewers do not know who the authors are).

In recent years, there has been a substantial increase in the number of manuscripts submitted to *QI* and other dental journals. This is a positive trend that may result in an increase in the quality of dentistry-related publications. Although this burdens reviewers, I am sure that most gladly partake in the process, knowing that this is the only way to create a balanced review process. Occasionally, the number of articles specialists are asked to review is a little too much. A solution is not simple; we are working to increase the reviewer pool, mostly with younger faculty mentored by more experienced veterans.

In spite of the difficulties, we have to maintain an objective, high-level peer review process and excellent faculty to further improve the quality of dental literature and its recognition at large.

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