

Medline bias against nutritional medicine

Abstract

Medical research needs reliable sources of information, which Medline claims to provide. However, Medline has consistently failed to index journals on nutritional medicine, a topic of increasing importance to medical practice. Members of Medline's selection committee decide which journals to index, thus its composition is crucial to indexing. The legal discipline, jury science, suggests that, to avoid bias, the committee should be weighted in favor of minority interests. Furthermore, the pool from which the panel is selected should include representatives of the minority. This has not happened, thus scientists are being denied access to significant research.

In medical research, progress depends on the availability of a broad range of information. If sources are biased, then patients will suffer. Unfortunately, Medline, the international source of information for medical and life sciences, appears predisposed against nutritional and ecological medicine.

Since the 1960's, it has been difficult to publish research on nutritional medicine. Abram Hoffer, a psychiatrist with a PhD in biochemistry, reported that the content, rather than the quality, of the research was the primary disqualification. An assistant editor of the *Journal of the American Psychiatric Association* told Hoffer that the journal would never publish an article from his group. In response, the US and Canadian Schizophrenia Associations started the *Journal of Schizophrenia*, later the *Journal of Orthomolecular Psychiatry*, to provide a vehicle for research into nutrition and psychiatry. As nutritional medicine became more general, the name was changed to the *Journal of Orthomolecular Medicine* (JOM).

Censorship by individual journals can be overcome by publishing elsewhere. Medline, however, is not a journal; it is an indexing service, acting as a filter for physicians who are too busy to trawl the literature. The benefits of this are obvious, the dangers less so.

A critical influence on Medline's utility is how journals are selected for indexing. Scientists and physicians might expect selection to be performed according to an objective, published set of criteria, but it is not. Selection is decided by a panel: the Literature Selection Technical Review Committee.

Selection of panel members is decisive in avoiding bias and is analogous to jury selection. Inappropriate jury selection is a leading

cause of appeals in the United States,¹ and a new discipline, jury science,² provides a theoretical basis to this problem. Both prosecution and defense lawyers have the right to exclude jurors. Neilson and Wilson have studied the effectiveness of such “peremptory challenges”.³ They found that if the defendant belongs to a minority group, and wrongful conviction charges are large, then it may be optimal to allow the defense to exclude more jurors.

Analogously, those applying for indexing of minority subjects should be able to exclude committee members with conflicting interests. Journals on nutritional medicine are in the minority. The cost of mistakenly rejecting these journals is high: cheap and effective treatments are overlooked. The risks of wrongful inclusion are low, as nutrients are safe. Thus, jury selection theory suggests biasing the committee in favor of the minority interest. Of course, peremptory challenges to committee membership only help if the pool is sufficiently diverse. Unfortunately, Medline reports that its selection committee has not included members with a background in nutritional medicine over the 40 years over which the *Journal of Orthomolecular Medicine* has been refused indexing.

Sheldon Kotzin, head of Medline’s bibliographic services division, appears unable to explain JOM’s alleged inadequacies. Moreover, there are other examples of exclusion of journals specifically related to orthomolecular and ecological medicine. The *Journal of Nutritional and Environmental Medicine*, the official journal for the British, Australian and American Societies for Ecological Medicine, also had its applications turned down. *Medical Veritas*, which challenges current medical practice, is excluded, as is *Fluoride*, which contains reports on the negative aspects of water fluoridation. Although controversial, these journals are of direct interest to health professionals. By comparison, journals with negligible scientific or medical content are indexed. Examples include *Readers’ Digest* and the *Journal of the Auckland Historical Society*. It is hard to see how these can be more relevant to physicians than the excluded journals.

Dr Steve Hickey resubmitted JOM to the indexing committee, with the aim of checking the selection process. The application failed, though clear reasons were not provided, despite repeated requests. Detailed examination of the process suggested institutional bias. In particular, Medline staff were unwilling to answer questions about the criteria used for selection of journals or the choice of committee members.

In the case of the Journal of Orthomolecular Medicine, the reluctance to index may be historical, based on the controversy ensuing from Linus Pauling's promotion of vitamin C. Notably, Pauling originated the term orthomolecular in an influential paper to Science in 1968.⁴ However, if Hoffer is correct, medical practitioners and scientists interested in nutritional medicine are being denied access to the relevant literature. Paper in this and related disciplines have been indexed only when they are published in acceptable journals such as *Medical Hypotheses*. Given the increasing importance given to nutrition over the past three decades, exclusion of nutritional medicine from Medline is indefensible.

¹ Hoffman M.B. Pizzi W.T. (2001) Jury Selection Errors on Appeal, American Criminal Law Review, Vol. 38.

² Barber J.W. (1994) The jury is still out: the role of jury science in the modern American courtroom, Am Crim L Rev, Vol 31, 1225.

³ William S. Neilson W.S. Winter H. (2000) Bias and the economics of jury selection, International Review of Law and Economics, 20, 223–250.

⁴ Pauling L. (1968) Orthomolecular psychiatry. Varying the concentrations of substances normally present in the human body may control mental disease, Science, 160(825), 265-271.