

## Report: Major Medical Journals May Neglect Preventive Medicine

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The promotion of health and wellness is one of the major principles on which the chiropractic profession prides itself. Topics such as general health and wellness routinely appear in chiropractic publications, and are often a subject of discussion in the typical chiropractic practice.

According to a study published in a recent issue of the *American Journal of Preventive Medicine*,<sup>1</sup> however, two of the most well-known medical journals, the *New England Journal of Medicine* (*NEJM*) and the *Journal of the American Medical Association* (*JAMA*), do not appear to share the same sentiments as their chiropractic counterparts. While both publications do a commendable job of delivering articles on the treatment of certain diseases and conditions, they do a lackluster job of providing information that promotes healthy behavior and could prevent certain diseases from occurring.

Drs. Stephen Woolf and Robert Johnson of Virginia Commonwealth University looked at all original investigations, reviews, editorials and special reports published in *JAMA* and *NEJM* in 1998 - a total of 1,159 articles - and classified them by article type, disease category and domain. Articles were organized into 12 "domains," including topics such as basic science, medical education, health policy, and primary prevention.

Of the articles published, 889 (77%) dealt with specific diseases; 451 (39%) concerned the diagnosis and treatment of patients with disease. Approximately 60% of the articles concentrated on epidemiology (the study of epidemic diseases), basic science, or the use of new drugs and pharmaceuticals to treat diseases.

In the area of health promotion and prevention, however, Woolf and Johnson noted that the amount of information published by both journals "seems discordant with its importance to patients and public health."

Of the 1,159 articles published in *JAMA* and *NEJM*, only 80 articles - just over seven percent - concerned personal health behaviors and risk factors that cause disease, and only 71 (6%) focused on the primary prevention of disease, most of which described "uncommon issues" in patient care. Twenty-nine articles addressed screening for disease in asymptomatic patients; 25 articles discussed the prevention of infectious diseases; 19 talked about the prevention of unintentional injuries; 17 examined tobacco use; six concerned diet and weight management; and just three were published on physical activity.

Woolf and Johnson also analyzed the articles from several domains. Their investigation found that while many articles "qualified technically" in the area of primary prevention, they were either of "limited relevance to routine patient care" or dealt with "obscure aspects" of preventive medicine. A closer look at their analysis revealed the following:

Unintentional injuries: According to the National Center for Health Statistics, unintentional injuries

are the leading cause of death among persons aged 1-44 in the United States, but in 1998, neither *JAMA* nor *NEJM* published any studies that would help prevent such injuries. None of the articles published provided information on how to prevent common injuries such as those incurred by automobile accidents, accidents that occur around the home, or other everyday incidents. However, *JAMA* did publish one insightful article on preventing injuries and disabilities caused by land mines.

**Infectious diseases:** Of the 25 articles published, 18 concerned what the authors termed "uncommon infections," such as a means of preventing cholera among refugees or the failure of existing vaccines. A total of 32 articles were published on the treatment of HIV infection, but only four dealt with how to prevent people from acquiring sexually transmitted diseases. Furthermore, only three articles focused on ways to improve the delivery of childhood immunizations.

**Tobacco use:** Four of the 17 articles dealt with reducing exposure to tobacco smoke and antismoking legislation and advertising. None of the articles addressed ways to improve the effectiveness of a patient's or clinician's efforts at smoking cessation or how to prevent younger people from taking up smoking. This despite the fact that, according to the CDC, an average of 400,000 Americans die each year from conditions attributable to cigarette smoking.

**Diet, weight management and physical activity:** None of the published articles addressed the basic question of how patients can adopt and then maintain healthy diets and exercise habits. One article consisted of an opinion piece co-written by the then-editor of the *New England Journal of Medicine* that actually questioned the value of losing weight.

**Disease screening:** Most of the 29 papers published, the researchers concluded, dealt with "isolated aspects of screening." For example, although 10 articles were written on cancer screening, only two provided a comprehensive overview of the procedure. And although heart disease is one of the most frequent causes of death in the United States, none of the articles evaluated common forms of cardiovascular screening, either for risk factors such as high blood pressure or blood cholesterol, or for coronary artery disease.

#### Reasons for Lack of Preventive Studies

In their discussion, Woolf and Johnson cited a number of possible reasons as to why both journals failed to publish a significant amount of papers related to preventive medicine in 1998. One possibility was a low number of article submissions - a logical assumption given the low amount of funding usually spent on prevention research and a generally limited interest in the subject.

However, further investigation by the researchers showed that while neither *JAMA* nor *NEJM* published any studies on how to help patients stop smoking in 1998, at least 26 such studies were published in selected preventive medicine, public health and primary care journals, including the *Archives of Internal Medicine* and *Archives of Family Medicine* (both produced by the same publisher as *JAMA*).

Other reasons cited for the poor showing of preventive articles included editorial concerns about the importance of such information and reader appeal. "Deciding whether a topic is relevant to a general medical audience may be influenced more by professional norms than by an objective calculus of how the information would benefit patients and public health," the researchers wrote.

"Even relevant evidence may go unpublished," they added, "if the topic has recently been covered and is therefore not 'fresh.'"

*JAMA* and *NEJM* are considered two of the leading sources of information for physicians in the

United States. In many ways, the news that people read in print or see on television is derived from information that appears in those journals. Their attention (or in this case, lack of attention) toward prevention and screening could be taken by some to mean that those journals simply don't care about disease prevention. It could also mean that physicians are more interested in treating existing conditions than preventing those conditions from occurring in the first place.

Many clinicians, Woolf and Johnson believe, "rely on journals to disseminate research advances." Therefore, by not reporting the latest information and research on preventive medicine, "most clinicians and trainees are left uninformed about the science base for primary prevention and screening." Instead of appearing in the most popular medical journals, this information is "relegated to specialized journals that relatively few physicians read."

#### Following a Dangerous Trend?

The report by Woolf and Johnson may add further credence to recent allegations that some medical associations (and the journals they publish) may be influenced by the amount of revenue received from particular advertisers.

In 1998, the *Western Journal of Medicine* published an analysis of the proportion of pharmaceutical advertising in six physician organization journals, including *JAMA* and the *NEJM*. The average issue of *JAMA*, investigators found, contained 78.7 pages of text and 71.7 pages of pharmaceutical advertising. *NEJM*, meanwhile, contained almost 71 pages of text and nearly 61 pages of pharmaceutical ads per issue. The revenue generated from those ads totaled \$18.6 million and \$14.31 for *JAMA* and *NEJM*, respectively; in fact, advertising revenue from *NEJM* brought in almost eight times more money than did membership dues and contributions to its publisher, the Massachusetts Medical Society.<sup>2</sup>

In 1992, the *Annals of Internal Medicine* published a study that criticized the accuracy of information presented in pharmaceutical ads and their compliance with FDA standards.<sup>3</sup> Researchers in the study found that 40 percent of the ads appearing in medical journals did not provide balanced information regarding benefits and side effects; 32 percent displayed headlines that could mislead a reader about the drugs' efficacy; 44 percent contained information that could lead to improper prescribing by physicians; and 57 percent were judged by two or more reviewers to have "little or no" educational value.

A significant decrease in drug advertising in the *Annals* was seen almost immediately following the publication of that study.

#### References

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