Seminar Addresses Media Coverage of Journal Articles

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Journalist Ellen Ruppel Shell’s article “The Hippocratic Wars” caught many people’s attention when it appeared in the New York Times last July. The article discussed the increasing competition between the New England Journal of Medicine (NEJM) and the Journal of the American Medical Association (JAMA) for readership and for media attention.

The concerns raised in that article catalyzed the Columbia University Journalism School to organize the seminar “Breakthrough? The Science and Politics of Medical Journalism”. The Lancet, Columbia University’s magazine 21C, and the Horace W Goldsmith Foundation cosponsored the event on 13 March.

Tom Goldstein, dean of the journalism school, noted in his opening remarks that good medical journalism does more than inform readers; sometimes it can save lives. Bad reporting can have dire, even fatal, consequences. Therefore, the seminar’s goal was to heighten journalists’ awareness of the scientific and political concerns to consider in covering medical research.

Medical journalism is a growing enterprise in the United States. In part, the demand has increased because of our changing health-care system. Doctors in health maintenance organizations lack adequate time to consult with their patients. Consequently, patients turn to the media for information about diseases and treatments. Also, as Ruppel Shell, codirector of Boston University’s science-journalism program, noted in her talk, 2 years ago the Food and Drug Administration began permitting drug companies to advertise prescription medications directly to the public. Barraged by this new information, the public seeks interpretation; the task often falls to medical journalists.

NEJM, JAMA, and many other medical journals seek income. Reprint sales make up one important source of revenue. In particular, drug companies purchase, for distribution to doctors, reprints that document favorable responses to their products. They do not, however, buy journal reprints that report the lack of beneficial effects of their products. In fact, one problem raised by several speakers is the gross underreporting of studies that fail to find statistically significant associations or effects.

The mass media rely heavily on just a few medical journals for most of their information. The mass media rely heavily on just a few medical journals for most of their information. Ruppel Shell cited a study reporting that over half of all medical reports in the mass media used NEJM as their source; JAMA ranked second. Those 2 journals may publish many of the best medical research studies, but not all papers in either journal are outstanding. Some appear in these journals because of novelty or topicality. These so-called lifestyle reports may be of marginal quality and therefore warrant the most careful scrutiny.

Many studies that medical reporters cover are clinically based associative studies rather than laboratory-based experiments that can test for causal relationships. To help journalists evaluate such associative studies, speakers gave the audience crash courses in statistics and epidemiology. Alan Weinstein, of Columbia’s School of Public Health, and Bruce Dan, medical director of Medcast Networks, spoke about the various types of study designs that researchers use and highlighted the strengths and limitations of each. Speakers identified several potential points of confusion, such as confounding and proxy variables, which can lead researchers, reviewers, and editors to misinterpret a study’s results.

The seminar’s take-home message was that medical journalists should use the strategy of scientific research in their own investigative work. A reporter should begin each new project with a null hypothesis: This new, hot study claiming that X causes Y, which appeared in the top medical journal and was announced by glowing press releases and packaged video footage, is not as important, novel, or convincing as the authors or journal editors claim. The reporter should then look at the evidence—the study design and interpretation of data, its place in the context of other research on the topic, and the disclosed and undisclosed motives and alliances of the authors and editors. If the evidence supports the null hypothesis, there might be no “breakthrough” story to write. If the journalist finds a well-designed, carefully controlled, and accurately interpreted study that reveals statistically and clinically significant associations between X and Y, then he or she has a story to share with readers.

RealAudio transcripts of the seminar, including the panel discussion, a Socratic dialogue sponsored by the Fred Friendly Seminar Series, are found on the Web site of the journalism school at www.jrn.columbia.edu/breakthrough/.