
As if health care reform and the information revolution are not sufficiently challenging, health sciences librarians are grappling with a cultural change called, among other things, total quality management (TQM). The literature on quality management is growing, though the application of TQM in the library environment is sparsely represented. I looked forward to actually reading a whole book on the subject.

This collection of articles is co-published in the first 1993 issue of the Journal of Library Administration, and its focus is on academic and research libraries. The editors state their intention to provide a group of articles that examine TQM planning and implementation issues for libraries, as well as descriptions of TQM programs outside libraries but within nonmanufacturing environments. The nonmanufacturing environments described include higher education and the federal government. The introduction mentions that "an area where TQM has had a very substantial impact beyond the manufacturing sector, is in the health care field" (p. 6). I was quite disappointed to discover that in spite of this substantial impact, no examples from the health care field or health sciences libraries are mentioned. The article authors were selected because they "have begun to think about using or . . . are already using TQM in a library setting" (p. 1). Every hospital librarian falls into one of these categories, and TQM efforts are also underway in academic health sciences libraries. The addition of the health sciences library perspective would have expanded the scope of the book to the readers’ benefit.

A thoughtful discussion of the reason for using TQM in a library is followed by descriptions of total quality management efforts at the libraries of Case Western Reserve University, Harvard College, and Oregon State University. Two articles outline TQM training processes, and several describe the tools of the technique, such as cause-and-effect diagrams, Pareto charts, and benchmarking. As may be expected from a book that is a compilation of articles, there is some repetitive information. Two identical illustrations of a TQM model appear, and several authors mention vocabulary barriers, particularly the use of the word customer.

Features that I found useful or inspiring include the vision statement of Harvard College Library and the model for implementing total quality management developed by the Association of Research Libraries’ Office of Management Services. The articles describing TQM in libraries are useful, while the articles that describe TQM efforts in nonlibrary, service sector environments are not remarkably helpful. The literature on TQM in the nonlibrary environment is voluminous and accessible to librarians. A selective list of resource organizations is provided in the introduction, though the health care industry is not represented. Health sciences librarians will want to add to this list the National Association for Health Care Quality in Skokie, Illinois.

The book is a useful overview for the uninformed, with enough detail to educate readers about the tools of TQM and warn them of its challenges. Librarians may use this book as the springboard for their quality improvement efforts precisely because it focuses on libraries. Hospital librarians will glean useful ideas from the book, but its emphasis is clearly out of the realm of the count-your-employees-on-one-hand library. Implementation of TQM in small libraries brings a host of unique challenges; ones that hospital librarians are required to meet. Health sciences librarians will need to augment this book and its suggested resources with gems from the health care industry, most notably The Health Care Manager’s Guide to Continuous Quality Improvement [1]. For those who want the meat and only the meat, the thirty-nine-page The Quality Quest: A Briefing for Health Care Professionals is about as succinct as one could be about total quality management [2].

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References


This book is a real gem for those librarians involved in curriculum integration and those who need to teach critical appraisal skills to medical students and residents. In the preface, the author notes the work is intended for several levels of clinical learners. “Medical students, who are beginning to form reading habits, will benefit from an early exposure to the concepts of adequate study design, appropriate sample selection, and use of statistical inference. More seasoned clinicians should become more comfortable with old stumbling blocks, such as ‘selection bias’
and "the null hypothesis" (p. ix).

There are, of course, the standard references covering evaluation of the research literature for the health sciences professional, coping with the medical literature, or reading the literature, all of which incorporate biostatistical concepts. Although many of us have acquired these reference sources over the years, this book is unique in its clear, concise, and creative presentation of the concepts of epidemiology and biostatistics linked to the critical analysis of the current published medical literature.

From the beginning chapter, entitled "Tasting an Article," a unique writing style is apparent. This contributes to the enjoyment of learning or relearning epidemiology and biostatistics, which can be a rather daunting task. A quote from Francis Bacon sets the stage, but each chapter begins with a clever quote metaphorically illustrating topics of discussion. "Some books are to be tasted, others to be swallowed, and some few to be chewed and digested" (p. 1). The underlying purpose of this book is always clear: to provide criteria for accurately discriminating among the overwhelming book and journal literature.

After an opening chapter on validity, reasons to read, and ways to approach an article, Dr. Gehlbach follows with four chapters on study design, including general considerations and the case-control, cross-sectional, follow-up, and experimental approaches. Next is a chapter on measurements, followed by six chapters on interpretation, covering distributions, averages, and the normal; statistical significance and statistical tests; sensitivity, specificity, and predictive value; risk; and causes. The concluding chapters are devoted to case series, editorials, and reviews.

Throughout this book, concepts are concisely defined with examples from the literature, along with tables graphically illustrating the concepts. Summaries of important information to be remembered are provided at the completion of each chapter for additional reinforcement. Further memory assistance is provided with thought-provoking questions to be considered in evaluating each kind of study. These reinforcing methods significantly enhance the learning process, another unique feature that sets this book apart from others in this genre. Moreover, Dr. Gehlbach accentuates how statistics can be misused when they are actually meaningless. One excellent example follows:

In an article on the prevention of injuries to children in automobiles, a series of 200 roadside observations was made of safety practices and their relationship to other "characteristics of the journey." A positive relationship was found between children riding in the rear seat (a good safety practice) and the number of adults riding in the automobile. This finding is reported as statistically significant at the $P < .001$ level. Impressive! But at second glance, it is hardly an insight likely to revitalize highway safety. The percentage of children in the back seat rises as the number of adults in the automobile increases. Children have to sit somewhere, and since adults usually lay claim to the front seat, the kids get displaced to the back. Attaching a fancy $P$ value to trivial observations does little to enhance their importance [p. 158].

As one can perceive from the above quote, the pithy writing style is indeed entertaining to read, but the book is also well documented, with the numerous references used as examples cited after each chapter and coupled with an excellent index offering direct access to each of the epidemiological principles. The author's credentials include an M.D. and an M.P.H., and he is dean and professor of the School of Public Health at the University of Massachusetts, Amherst. Earlier editions are similar; the examples of the literature used have changed. Examples related to HIV/AIDS and other more timely topics have been substituted for literature on issues that are no longer of current interest.

Of special interest to librarians is the author's advocacy of seeking the help of a medical librarian rather than relying on the "undocumented recollections of our colleagues" when collecting experience on a clinical need, as we have all tried to convince our medical faculty (p. 233-4). He also advises caution in the use of review articles and that "finding all the research reports on a topic is not easy." Dr. Gehlbach further assists librarians in warning of the inherent risks of lack of absolute comprehensiveness in one computerized source and encourages consultation of more than one source (p. 244).

Finally, this book speaks to medical librarians as well as to medical students and clinicians. Many of our research activities concentrate on areas in the health sciences, and, currently, we are becoming involved in outcome studies as a result of curriculum reform. A solid knowledge of epidemiology and biostatistics is essential.

With this third edition, Dr. Gehlbach has contributed a superb addition to the books in this ever-increasing critical arena of literature evaluation. Interpreting the Medical Literature provides the key for anyone who is struggling to unlock the mysteries surrounding epidemiology and biostatistics in discerning what is truly "digestible" in the medical literature.

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