Papers by Family Physicians That Have Influenced the Way I Practice

Jonathan E. Rodnick, MD
San Francisco, California

Before you read the rest of this editorial, close your eyes, and try to think of 10 original research papers by your family physician colleagues that have affected the way you make clinical decisions about the diagnosis and treatment of a disease.

I have been doing this during the last few months and would like to share with you the articles that came to mind. As an editorial board member of the *Journal*, I try to be aware of what articles are POEMs (patient-oriented evidence that matters), and I keep a mental list of articles that made me say "aha." These are articles that either caused me to question my procedures when seeing a patient, or reinforced a peculiarity or clinical pearl that characterizes my care of a patient with a specific disease, such as encouraging patients with hypertension to measure their blood pressure at home. Five years ago, Paul Fisher[1] compiled 2 lists of articles from the *Journal*: those most frequently cited and those asking gold-standard questions. These lists are a good starting point if you have drawn a blank so far in trying to come up with your own.

To narrow your choice of articles, you should *exclude* articles about family practice philosophy, the organization of care or health services research, and educational research, as well as review articles.

I practice at an academic medical center, and I no longer deliver babies or attend on our inpatient service. Therefore, some crucial family practice research articles that have changed the way many physicians practice in the hospital do not get imbedded in my memory. Many of the best articles I read are practical, short, and to-the-point review articles by family physicians. However, because these are not original studies, they are also not included in my list. Nine of the 10 articles I chose were published within the last 10 years. I have chosen studies that are methodologically sound, relevant to my practice and patients, and convincing enough to affect my behavior. This list is my opinion only; I did not do a search for citation frequency or use any formal mechanism to identify and evaluate the articles. So now, without further adieu, here are my top 10 articles in chronological order by publication date.

1. *Frame PS. A critical review of adult health maintenance. Part 1: prevention of atherosclerotic diseases. J Fam Pract 1986; 22:341-6.* This is the first of a series of 4 papers written by a practicing family physician. He did a structured literature review of studies that justify screening for diseases in asymptomatic adults, including only those studies that met 6 criteria. This series established that preventive medicine practice must be based on evidence. The US Preventive Services Task Force grew out of this work. The list of recommended procedures is few, and it helped me focus on those areas of screening, counseling, and immunization in which I can do the most good for my patients.

2. *Green LA, Becker LA, Freeman WL, Elliott E, Iverson DC, Reed FM. Spontaneous abortion in primary care. J Am Board Fam Pract 1988; 1:15-23.* This is one of many articles that have come out of the Ambulatory Sentinel Practice Network. Research studies done in family physicians' offices have the potential to be the most relevant to our practice. This was a descriptive study looking at how family physicians in the United States and Canada managed women who have spontaneous abortions. It found that 40% of these women were managed completely in the office or at home, and only 51% had a dilation and curettage (D&C). Patients who had a D&C had no difference in complications from those who did not. This study reinforced that I, like most other family physicians, am conservative in my use of hospitalizations and procedures. Although the study did not change my practice, it did make me more comfortable in my approach to spontaneous abortions.

3. *Hueston W. A comparison of albuterol and erythromycin for the treatment of acute bronchitis. J Fam Pract 1991; 33:476-80.* There have been many randomized controlled trials showing that antibiotics have little effect on acute bronchitis, but I would occasionally use these medications because I did not have a good alternative for acutely ill patients. I found the answer in a small randomized control trial done in family practice offices: Patients who inhale beta-agonists do just as well as those taking antibiotics. The study was applicable to my patients, and it changed my practice.

4. *McPhee SJ, Bird JA, Fordham D, Rodnick JE, Osborn EH. Promoting cancer prevention activities by primary care physicians. JAMA 1991; 266:538-44.* I cannot avoid mentioning a study in which I was involved. This was a randomized controlled trial conducted in primary care physicians' offices showing that those physicians getting computerized reminders of overdue cancer prevention activities significantly improved their performance on 9 of 11 recommended tests and counseling activities. We now have a computerized record system in the office, and I try to follow its prompts for immunizations, tests, and counseling. I

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All correspondence should be addressed to Jonathan E. Rodnick, MD, Department of Family and Community Medicine, University of California, 500 Parnassus Avenue, Box 0900, San Francisco, CA 94143-0900.
E-mail: rodnick@itsa.ucsf.edu.

hope my HEDIS (Health Plan Employer Data and Information Set) scores show it.

5. *Mold JW, Holtgrave DR, Bisonni RS, Marley DS, Wright RA, Spann SJ. The evaluation and treatment of men with asymptomatic prostate nodules in primary care: a decision analysis. J Fam Pract 1992; 34:561-8.* I agree with most second-year medical students who doubt that doing a rectal examination accomplishes anything more than to make a patient uncomfortable. This study was a decision analysis, a technique that is applicable to many treatment decisions. It showed that if a prostate nodule is found on an asymptomatic 65-year-old man, biopsying it might give an average patient 1.1 extra months of life expectancy. As you might guess, most of the studies that served as its basis were done in urologists' practices where higher prevalence of disease would be expected, so it may overestimate the survival benefit. Unfortunately, prostate-specific antigen was not factored in, but the analysis reinforced my inclination to avoid rectal examinations for most patients.

6. *Selby JV, Friedman GD, Quesenberry CP, Weiss N. A case-control study of screening sigmoidoscopy and mortality from colorectal cancer. N Engl J Med 1992; 326:653-7.* If rectal examinations do not help save lives, do sigmoidoscopies? This study had an interesting design. It was a retrospective analysis of 261 northern California members of Kaiser Permanente who died of colorectal cancer. The authors compared this group with a larger one of control patients matched for age and sex. They found there was a 60% to 70% subsequent reduction in death rates if sigmoidoscopy had ever been done. This study is not only a good example of research using a health maintenance organization database, but it also led me to recommend sigmoidoscopy more often.

7. *Cauthen DB. Family practice incidence rates. J Am Board Fam Pract 1994; 7:303-9.* This study takes it cue from Sir James MacKenzie,[2] William Pickles,[3] and John Fry,[4] the famous general-practitioner researchers in Britain, who carefully looked at the incidence and prevalence of disease in their practices. Rather than examining a specific practice, the author used published incidences of diseases throughout the United States and defined how often an average family physician would encounter illnesses or do procedures. It helped me focus my teaching and reading on common problems, and allowed me to be less concerned about illnesses and procedures that I will probably never see or do.

8. *Fleming MF, Barry KL, Manwell LB, Johnson K, London R. Brief physician advice for problem alcohol drinkers. JAMA 1997; 277:1039-45.* We know that advice from a physician to stop smoking has a positive effect. This randomized trial showed that brief advice to decrease alcohol consumption works as well. It was conducted in family physicians' offices using a short counseling visit, so this method is applicable to all of our practices. I now more confidently confront and counsel patients about their alcohol consumption.

9. *Froom J, Culpepper L, Jacobs M, et al. Antimicrobials for acute otitis media: a review from the international primary care network. BMJ 1997; 315:98-102.* This study brings together evidence from a number of sources, including 7 randomized controlled trials, comparing antimicrobials with placebos in the treatment of otitis media. The authors conducted a meta-analysis and showed there is no compelling evidence that children with acute otitis media have better outcomes if they are given antimicrobials. More research still needs to be done, but the febrile child who has a slightly red ear drum with normal landmarks probably does not need antibiotics.

10. *Campbell KA, Shaughnessy AF. Diagnostic utility of the digital rectal examination as part of the routine pelvic examination. J Fam Pract 1998; 46:165-7.* This study done in a family practice center showed that there is no reason to continue the digital rectal examination as part of the routine pelvic examination in women aged younger than 40 years. I have since stopped this practice.

Our clinical research literature is relevant and useful. Five of these studies were done in family physicians' offices and the other 5 in the library or on the computer using data from practices whenever possible. Studies that involve the collection of data are not always randomized controlled trials, the highest level of the epidemiological hierarchy. Good descriptive studies, such as those on my list about spontaneous abortion or pelvic examination, can often be very useful. Interestingly, 4 of of my 10 studies did not mention any funding and were probably done without any extramural grant support. Family physicians are doing relevant research. Their work has changed my practice, and I expect it has changed yours.

So what studies are on your top 10 list?

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1. Fisher PM. A note to family medicine researchers. J Fam Pract 1994; 39:221-4.
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3. Jones R. William Pickles' lecture 1997. A liberal education: teaching, learning and research in general practice. Br J Gen Pract 1997; 47:395-9.
4. Fry J. Common diseases: their nature, incidence, and care. 2nd ed. Philadelphia, Pa: Lippincott, 1979.