Family Medicine and Research: From Here to Eternity

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Why should practicing family physicians care about whether research is being conducted in family medicine? First, there are many unanswered clinical questions about the common problems we face as family physicians in our everyday practices. Without answers to these questions, we cannot practice evidence-based medicine. Even if researchers from other disciplines attempt to answer these questions, it is difficult for family physicians who rely solely on the review literature of other specialties to provide up-to-date therapy.

Second, research is important to the educational future of our discipline. There is growing evidence that specialty choice by medical students may be influenced by their perception of research opportunities and/or research activity within the discipline. Indeed, research opportunity was the highest-rated career choice factor of medical students selecting a specialty career. Given that the number of US medical school graduates entering first-year family practice residencies has declined for the past 4 years, the establishment of a strong research presence within the medical school environment might be one component of a strategic plan to reverse this trend.

Finally, generating new knowledge through research is critical to defining family medicine as a discipline. Without our own research, we become technicians who apply the knowledge generated by others instead of possessing a unique body of knowledge that defines us as a medical specialty. Research also serves to protect our clinical domain from encroachment by and promotes acceptance from other specialties. If research is important to the future of the discipline, what is the current level of research activity, and why has the development of a supportive research environment within family medicine been so difficult?

Where Are We?

Although the discipline of family medicine has made strides, the status of family medicine research is still far from what it should be. What is the status of research in residencies? In 1995, 32% of family practice residencies were rated as showing "low productivity;" 56% of programs had no grants, and 41% had no publications. This lack of exposure to research during residency training may cause graduating family physicians to view it as insignificant or unimportant.

Similarly, family medicine research journals have experienced major problems. Despite the fact that the availability of journals is considered the second most important environmental factor to researcher success, our research journals have low subscription rates and, consequently, problems with funding support. The Family Practice Research Journal and the Archives of Family Medicine ceased publication due to the lack of subscriptions by practitioners, the resultant lack of advertisement dollars, and the consequent financial collapse. More recently, the Journal of Family Practice, a periodical with a longstanding history of publishing original research, made the decision to discontinue publication of research articles—citing lack of reader interest. As a result, as family medicine researchers gain experience, they often communicate their research results in forums outside of their own discipline. From 1990–1996, 2,848 research articles were published in non-family medicine journals by faculty from family medicine departments or residency. Further, 19% of articles published in family medicine journals come from outside the discipline.

In addition, we have inadequate numbers of and involvement by experienced researchers. Few family physicians consider themselves primarily as researchers. Research fellowship slots in family medicine are often unfilled or are filled by physicians in other disciplines. Family physicians who take on research roles within academic settings often experience pressure to be productive in the clinical setting. This pressure competes with time and resources to conduct high-quality research. Weiss' recent study is particularly concerning in that he found that the publication

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productivity of family medicine faculty dropped from 1994 to 1999.

What do practicing family physicians think about the value of medical research? Research is rated lower by family physicians than all other information sources in terms of understandability and applicability. Research is rated more credible than only one other source—pharmaceutical representatives. When offered free copies of the Archives of Family Medicine, only 19,000 of the 100,000 physicians eligible actually requested the journal (personal communication with E.R. Anderson, Jr, November 6, 2000). These negative attitudes toward research are reflected in the poor attendance by practitioners at research meetings and in the fate of its journals.

Compared with other specialties, family medicine is less likely to require research to be conducted by its residents. Compared with other primary care specialties, family medicine also lags behind. This is true in terms of the use of research, research requirements during residency, and the availability of research fellowships. Thus, research values differ among primary care disciplines. Even family physicians in other countries do not share these attitudes. English family physicians more often use refereed journals than do family physicians in the United States. In addition, 95% of Danish family physicians accept the need for involvement in research, and 62% of English family practices are actually involved in research. Thus, negative attitudes toward research may be unique to US family physicians.

How Did We Get Here?

As with any culture, family practice is defined by the values of its members. US family practice has not only valued patient care principles that are unique to our discipline but has also defined itself by requiring continuing education and recertification. Although there was a long tradition of patient care and teaching in family practice, this tradition did not include research. Since its inception, family practice has also held a unique world view. Compared to other specialties that do research, family practice has viewed itself as a counterculture. The countercultural basis of our discipline may also have included a rejection of traditional academic medicine, including the role of research in advancing patient care.

Within the academic setting, family physicians value their generalist heritage and, thus, faculty members are expected to perform all of their duties (clinical, teaching, research) with equal ability—the so-called “triple threat.” These faculty members in academic settings often experience conflict between their roles as care providers and researchers. This may contribute to a negative assessment of their own value as researchers. Family physicians in practice have a tendency to devalue their own personal observations about unique approaches to patient care and, therefore, are reluctant to accept individual responsibility for advancing the discipline.

Family medicine has also suffered status and self-image problems. Specialists in medical centers continue to denigrate primary care and particularly its research. Rarely are family medicine research results reported by the media, in contrast to those of other disciplines. When family medicine researchers become more experienced, they decrease their involvement in family medicine journals and conferences in favor of disseminating their research at specialty forums to increase the readership of their research and their own prestige, which ultimately may improve their ability to secure federal funding for future research.

Finally, the lack of research support stymies scholarly productivity and reinforces the impression that research is not important. Despite the recognition that 40% research time is needed for researchers to be productive, university-based faculty average only 12% research time, and community-based faculty average 4%–5% time. Similarly, although the American Academy of Family Physicians (AAFP) offers prescribed continuing medical education (CME) credit for clinical and teaching-related activities, research-related conferences must settle for elective credit.

At the federal level, lack of support for family medicine research is evident in the budgets of the Agency for Healthcare Research and Quality (AHRQ) and the National Institutes of Health (NIH). In 2001, of the $7.99 billion awarded by the NIH in research grants, only $32 million went to family medicine departments. The only federal agency with a mandate to support primary care research is the AHRQ. Their current budget of $299 million is only 3% of the entire NIH budget, and currently proposed federal budgets target this agency for a $49 million reduction. This lack of support for research at the program level, the discipline level, and the federal level compounds the dire situation.

What Is the Future of Research?

What can be done to strengthen research in family medicine? First, we should consider taking steps to protect and expand the current research base. Second, we should consider ways to promote a better self-image within our specialty regarding research. Finally, and perhaps most importantly, we will need to tackle the issue of developing a culture that is more supportive of research.

Improving the Research Base

Our current family practice leadership has recognized the need to improve our research base. The AAFP implemented its research initiative in 1998, which established the National Network for Family Practice and Primary Care Research after the demise of the Ambulatory
Sentinel Practice Network, and founded the Robert Graham Center for Policy Studies in Family Practice and Primary Care in Washington, DC. The North American Primary Care Research Group (NAPCRG) appointed a Committee on Building Research Capacity. Projects that evolved out of that committee include the Grant Generating Project to assist family medicine researchers to prepare fundable research grants, the University of Missouri workshop for development of research in family medicine departments, and preconference research skill-building workshops held each year for researchers in family medicine. Recently, several family medicine organizations have joined together to publish a new research journal, the Annals of Family Medicine. Finally, the success of practice-based research networks (PBRNs) and the viability of AHRQ are positive factors for future research development in family practice. Other efforts are also underway (Table 1).

Additional measures that could be considered to strengthen the research base are shown in Table 2. For some of these efforts, family medicine professional organizations and societies may need to provide long-term support. For example, the AAFP might consider updating its policy about offering only elective CME credit for research-related activities.

The discipline might also consider ways in which we can support the concept that some family physicians should pursue research careers in which a majority of their time is committed to research. Competition for research funding and publication is such that to ask family medicine researchers to conduct their research after hours and on weekends will mean that family medicine as a discipline will always produce research that is "too little, too late." Pursuit of the balanced triple-threat concept in academic settings at the expense of scholarly productivity may need to be reconsidered. Finally, the role of leadership within the academic medical setting in building successful research units cannot be overemphasized. But, recruiting successful family medicine researchers to leadership roles in departments of family medicine within academic medical centers is difficult. The pool of successful family physician researchers is small, and placing successful researchers into administrative positions will cause a significant reduction, if not a total halt, in their own research productivity.

Promoting a Better Self-Image

Although we publicly state inferiority to no specialty, we cannot help but internalize the denigration we hear from other disciplines. Whether through indoctrination during training, restrictions in academic and hospital settings, or attack in medical journals, family physicians are perpetually denigrated for the quality of their clinical care or their research. CME conferences sponsored by family medicine organizations often consist of specialists updating family physicians on the latest developments, as determined by tertiary care-based specialists, as derived from tertiary care-based research, with instructions for what we are doing wrong. Instead, family physicians with special interests in specific topics could provide a more fair and balanced approach to updates in a given subject area. Practicing family physicians will not value family medicine, or family medicine research, until we resist the barrage of negativity from others and internalize the demonstrated validity of our principles and our research (see Table 2).

Resisting the external negative assaults will require a concerted effort by the discipline. Recently, attacking the quality of care provided by primary care physicians has become a popular sport in the specialty literature. Not only are there case-mix and severity of illness differences between primary care and specialty populations, but most of these studies are observational and prone to serious selection bias. Allowing such studies to go unanswered serves to erode our image both internally and externally. One method that might be useful in combating these studies is developing the capacity to respond to any such publication through a letter to the editor, discussing the sure-to-be-present validity concerns. For example, a standing committee (a critical appraisal "SWAT")

Table 1

Some Previous Recommendations for Promoting Family Medicine Research

- Development of the Family Practice Inquiries Network
- Increased information retrieval by family physicians
- Increased computerization
- Increased library access
- Educational programs on information use for physicians
- Tailoring journal articles to practitioners
- Train residents to be reflective clinicians who value research
- Participation in practice-based research networks
- POEMs (Patient-oriented Evidence That Matters) section within the Journal of Family Practice
Developing a Positive Research Culture

In the long term, we must demonstrate the value of the patient care principles unique to our discipline through our research. This will require that we establish a research base validating the uniqueness and value of the family medicine "approach." For example, family medicine journals might consider publishing a series of systematic reviews, looking at the value of these principles. We cannot feel good about who we are until we have validated the principles on which we stand.

Finally, the call by Dickinson et al for all family physicians to be involved in the generation of new knowledge for our discipline should be heeded.37 We need a culture within our discipline that is supportive of research. In addition to ensuring that new family physicians leave residency with positive attitudes about research, we must work with current practitioners to reform the existing culture.38 What does this mean? At a minimum, with the rapid growth of practice-based research networks throughout the United States, it should soon be practical for nearly every family physician to be a member of one of these networks. Family practice can lead the way as it did on requiring periodic testing and recertification of its members for board certification in this area. Just as some states are requiring 1 hour or more of ethics CME, a small number of hours might be required in some research-related activity, including participation in a PBRN. Finally, participation in research should be rewarded equally in CME hours of credit toward maintaining board certification.

Conclusions

What can practicing family physicians do to support the development of a strong research base for our discipline? They can:

1. Participate in a PBRN.
2. Contact a nearby academic department of family medicine at a medical school and participate in research projects in which they are involved.
3. Join their state family practice association’s research committee and actively support research within their state family practice organization.
4. Be inquisitive in their own practice by keeping a record of the clinical questions that occur during everyday practice and sharing them with colleagues.
5. Read and subscribe to a family medicine journal that publishes research articles.
6. Attend the annual AAFP Scientific Assembly’s presentations of original research.
7. Contribute to state and national family practice foundations. These foundations provide important seed money to develop research projects for family physicians.

Generation of new knowledge that will support the discipline of family medicine is important to all of us. This is an effort that will require a concerted effort by all family physicians in every setting.

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Table 2

Recommendations for Promoting Research in Family Medicine

- Improving the research base
  - Support from family medicine organizations
  - Seeking alternatives to paper journals (eg, on-line journals)
  - Using evidence-based format for American Family Physician articles
  - AAP offering prescribed credit for research-related activities
  - Promotion of research careers
  - Faculty with primary responsibilities in research
  - De-emphasize the “triple threat” concept for faculty
  - Establishment of an Institute of Family Medicine within the National Institutes of Health

- Promoting a better self-image
  - Resisting external assaults
  - Critical appraisal team responding to attacks from specialties
  - AAP Communications Division to publicize research findings
  - Promote the value of family medicine principles
  - Establish a research base validating family medicine principles
  - Journals to publish systematic reviews on family medicine principles
  - CME conferences with family physicians as presenters

- Developing a research culture
  - Replacing research attitudes
  - CME hours for participation in a practice-based research network
  - Recertification requirements
  - Requirement of a scholarly project
  - Requirement of participation in practice-based research network
  - Requirement of research-related CME hours

AAP—American Academy of Family Physicians
CME—continuing medical education
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REFERENCES


