COMMENTARY

— *Shaping the Future of the Specialty* —

Family Medicine Researchers—Why? Who? How? When?

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Family medicine is a relationship. A relationship between physicians and their partners: patients, families, and communities. These relationships are enriched by the medical sciences, hard and soft, that we continually learn over our lifetime. Family physicians translate science to all of our partners in the belief that we can provide guidance toward better health in context of each partner's needs. Nonetheless, research not done in a primary care setting or with a primary care perspective may fail to ask the most important questions facing our partners. Why the disconnect?

Family medicine is a service profession with strong educational, organizational, and empathetic systems for health care delivery. But we do not feed ourselves well. Our discipline needs family medicine researchers to ask and answer questions important to creating a healthy population. But our research community is few in number and underfunded to answer the solvable problems we tackle with our partners. Perhaps we have not named the gap that hinders us from undertaking research as a career? We need evidence. We need research. We need commitment to continual inquiry and measured creative outcomes. This evidence is fed back into many aspects of our practice, and equally importantly to the policy level that sustains our health care delivery, our reimbursement, our teaching institutions, and our commitment to underserved populations. Having ownership of the data representing our research provides family medicine with the ability to answer the questions we need answered, to drive our own destiny at the pace and in the direction we have prioritized. How do we do this? Where are the role models?

Our most renowned ancestors of family medicine research were Curtis G. Hames and Maurice Woods, both of whom harnessed the power of quantitative data organization describing community-based populations. They both had unquenchable curiosity. They engaged in research that would change the social fabric of their communities studying questions and implementing results in communities that were often invisible to the outside world. Their inspiration continued to motivate future family medicine researchers until a collective birthed the North American Primary Care Research Group, now known as NAPCRG. This small initial group survived by sheer wit, exuberance, and fire in the belly that would not quit. They were not blessed with extramural funding and there were few established peer-reviewed journals in which to publish their work. They were not well known throughout all of family medicine, nor given wide berth in our clinical practices. We should change that!

We have evolved as family medicine researchers, recognizing that our work feeds the evidence base and understanding of our community-based practices. But we can no longer sustain our research by sheer grit alone. Many have had the crucial support of colleagues within and beyond family medicine to get through the creation and implementation of new work; others have had further formal education in research methods financed personally or through training grants; still others have had mentored fellowships that provide rigorous research training as well as career counseling and ready-made networks for launching new

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research initiatives. But these research opportunities, to date, have been only in a few settings, subject to private organizational funding or training grant awards To solidify our pipeline of family medicine researchers, we need a formalized process to foster and embolden family physicians to be curious, to have the freedom to ask how, why, and where, to have role models from whom they seek guidance, and have the rigorous training to be fundable scientists.

Since the 1990's, evidence-based medicine has been adopted in the undergraduate medical school curriculum and reinforced by our continuing medical education requirements. But just as clinical skills become rusty without use, the overwhelming work of clinical care and the logistics of documentation on service often smother the understanding of how evidence becomes a basis for the practice of medicine both during medical school and residency. We can change this!

The American Board of Family Medicine (ABFM) wisely added quality improvement practices to board (re)certification as a first step toward educating all of our family physicians how to collect, interpret, and act on data. This evolved into the patient centered medical home which required more data collection, and more advanced patient outcomes tied to specific interventions. Now we are at an inflection point where we must ask ourselves what is necessary in the training of all family medicine residents regarding research rigor, and what must be gained in postdoctoral experiences. We must prioritize the changes needed to enhance the quantity and quality of family medicine researchers.

For ACGME Consideration

All family medicine residency graduates must, at a minimum, and regardless of employment status, have the competency to contribute their patient experiences to shared data resources, whether that is to a reimbursement consortium's dashboard for patient outcomes, or to a research network's ongoing data collection or some future manner of data aggregation. The Accreditation Council for Graduate Medcial Education must name this requirement. This competency is increased rigor for quality assurance/quality improvement that will contribute to better patient outcomes (improving the health of the population) of the quadruple aim.[1] There must be an established shared health registry to which each family medicine residency links its clinical data, and reciprocal use of this registry for practice improvement. Residents must graduate feeling a responsibility to contribute to the data of primary care improvement.

All family medicine-trained physicians must be able to interpret data for practice improvement. The ABFM has provided the groundwork for these specific requirements. All residents must demonstrate curiosity and recognize what gaps they face in their clinical care outcomes, then be trained in a process in which they (1) act on developing an improvement goal with mentors; (2) decide on the data (clinical, survey, economic, etc) to be collected; (3) organize the data collection in a way that can be shared with others; (4) analyze the data; (5) draw a conclusion; and (5) implement their new knowledge for an improved patient outcome. This set of skills is a minimum for scholarship. Having clinical quality mentors in each program is a must. The ACGME Residency Review Committee for Family Medicine can name this requirement.

Further advancements will be optional. There will be other family medicine residents who have a fire-in-the-belly curiosity that always ask "Why?" For these residents, having a specific track could provide them with a tribe of like-minded family physicians with whom to grow. Many specialized tracks within family medicine lead to a certificate of added qualification (CAQ) with postresidency training, such as addiction medicine, brain injury medicine, clinical informatics, adolescent medicine, geriatric medicine, sports medicine, sleep medicine, hospice and palliative medicine, pain medicine and hospital medicine. Research tracks in residencies should be added, perhaps linked to schools of public health, public health departments, academic research centers, translational research groups, or even a health insurance company[2] that could provide a small taste of how to frame a question of interest, how to create sample sizes, what data must be collected, the cost of collecting the data, and how the process for interpretations are planned.

Mentors and Role Models

A list of qualifications to define research mentors and role models to foster the pipeline of primary care researchers is needed. Not all residencies will have access to such mentors, as has been seen in the limited number of bright spots of family medicine.[3] Nonetheless, we must develop this tribe of mentors. Whether in person or virtually, we must coalesce to create experiences that will allow residents full

exposure to a research-based primary care future. NAPCRG is a prime organization to convene researchers for the purpose of mentoring and seeking career guidance. Several programs shared between NAPCRG and the Association of Departments of Family Medicine promote the Grant Generating Project, the Building Research Capacity, and the Patient and Clinician Engagement Program, where new skills and colleagues come together routinely to support the research efforts of the family medicine departments in the United States and Canada. Whether on site or virtually, every residency must have access to such faculty mentors, and this needs to be clear in the ACGME faculty scholarship requirements.

Family medicine research is maturing. A congressionally-mandated study was independently completed showing the need for family medicine to produce and disseminate evidence for critical clinical and policy changes.[4-6] We need to continue to grow. As a field developing from a counter spirit to specialization, family medicine has not embraced research as a traditional activity that other established fields have. Now we must continue the hard work to expand family medicine research, developing future sets of researchers so that primary care can indeed direct the improvement of population health with excellent patient experiences at reduced costs.

We can do this! When we know that a particular clinical skill is mandatory for a resident to attain, we, as educators, figure out the solution, which often comes at a price we are willing to bear. As educators, we must also decide how to increase the minimum research skills necessary to complete residency training and offer a track for those who seek skills beyond this minimum. We must create professional pathways that allow both the fiscal support and infrastructure for faculty success after training.

Much has been accomplished in the 50-year history of our discipline. We have family medicine researchers on the United States Preventive Services Task Force to influence at a national level, practice guidelines that become clinical standards of care for patients. We have family medicine researchers occupying leadership positions in public health departments because of the breadth of understanding of community needs. We have family medicine researchers embedded in many organ-specific funded research work because there is an unattended need for the primary care lens to contribute to patient outcomes. Family medicine has taken the lead on practice-based research networks and community-based participatory research, using both qualitative and quantitative methods.[7]

Now and in the future, family medicine must continue to encourage, nurture, support, and develop our future researchers!

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References

1. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. Ann Fam Med. 2014;12(6):573-576. doi:10.1370/afm.1713
2. Singh P, Orzol S, Peikes D, Oh EG, Dale S. Participation in the Comprehensive Primary Care Plus Initiative. Ann Fam Med. 2020;18(4):309-317. doi:10.1370/afm.2544
3. Liaw W, Eden A, Coffman M, Nagaraj M, Bazemore A. Factors associated with successful research departments: a qualitative analysis of family medicine research bright spots. Fam Med. 2019;51(2):87-102. doi:10.22454/FamMed.2018.652014
4. Mendel P, Gidengil CA, Tomoaia-Cotisel A, Mann S, Rose AJ, Leuschner KJ, Qureshi NS, Kareddy V, Sousa J, Kim D. Health services and primary care research study. RAND. www.rasnd.org/t/RR3229. 2020.
5. Westfall JM, Wittenberg HR, Liaw W. Time to invest in primary care research—commentary on findings from an independent congressionally-mandated study. J Gen Intern Med. 2021;1–4: Epub ahead of print. doi:10.1007/s11606-020-06560-0
6. National Academies of Sciences, Engineering, and Medicine. 2021. Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care. Washington, DC: The National Academies Press; 2021. https://doi.org/10.17226/25983.
7. Fetters MD, Guetterman TC. Discovering and doing family medicine and community health research. Fam Med Community Health. 2019;7(2):e000084. doi:10.1136/fmch-2018-000084