COMMENTARY

Patient-Centered Research Happens in Practice-based Research Networks

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The articles included in this special issue illustrate once again why practice-based research networks (PBRNs) provide the best laboratory in which to conduct experiments and evaluate care outcomes that are relevant to both typical primary care patients and their physicians. We found great insights in the articles from leaders in PBRN research and were able to learn new things that we can apply to our own PBRN, the Southern Primary-care Urban Research Network (SPUR-Net) in Houston, which is also a member of a network of networks the PRImary care Multi-Ethnic Network (PRIME-Net). The typical patient that comes to a primary care practice does not present just a single disease state but rather a variety of medical conditions as well as emotional and social concerns. Therefore, patient-centered primary care, and its research, should include attention to multiple chronic illnesses. Ornstein et al[1] provide a valuable description of the prevalence of multimorbidity defined by the presence of ≥3 chronic conditions. In their sample, 25% of patients 50 years old and 66% of patients 80 years old experienced comorbidities. Many clinical guidelines do not include specific recommendations for patients with multiple chronic illnesses; therefore, incorporating practice-based research could allow for more patient-centered guidelines that better address patients visiting primary care practices and their needs and preferences.[1]

PBRNs are valuable in exploring whether clinical guidelines and evidence for integrated medical home services can translate into actual practice. Davis et al[2] describe the challenges of implementing a more intensive depression screening program that requires additional staff. Even with beneficial clinical outcomes in a research study, difficulties often arise when implemented in an actual practice setting without support for such services from external funding. This tension between incorporating the many components of patient-centered care with clinical guidelines that occurs in the real-world patient visit is also seen in a prospective study of treatment for methicillin-resistant *Staphylococcus aureus* skin and soft tissue infections.[3]

Evaluating what is already effective in primary care and quantifying this in such a way that others can emulate it is another approach offered by PBRNs. This can be seen in the report by Scheid et al.[4] They describe primary care physicians who had high colorectal cancer screening rates and how these physicians delivered excellent preventive care. This exemplifies the value of practice-based research to illuminate what is happening in the real-world workflow of clinical practice to achieve a recommended outcome. This study evaluated 25 practices and 48 primary care physicians using questionnaires, interviews, records review, and practice observation. Physician exemplars with high screening rates related that they rarely used interventions proposed in publications. They did, however, have specific attitudes and techniques that improved performance. They were motivated toward preventive service in general and prioritized colorectal cancer screening. None of the exemplars used an automatic prompt or reminder system but they did use flow sheets. They also used brief promotion scripts that had elements of motivational interviewing techniques. This emphasizes the need to bridge the gap between national guidelines and what actually is adopted and effective in fast-paced clinical practice.[4]

Wellness is the goal of the health system, and cancer screening is an integral component to this end. Implementing guidelines that work in primary care is crucial to achieving effective results. Physicians negotiate barriers to colon cancer screening

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through effective communication. The study by Levy et al[5] randomized patients due for screening into 4 groups who received either (1) usual care, (2) physician chart reminders, (3) mailed education materials with a fecal immunochemical test (FIT) plus chart reminders, and (4) structured telephone calls plus chart reminders plus the mailed educational materials and FIT. Return of the FIT was the major way screening rates increased; the phone call did not increase screening rates. These results can help guide the best investment of time and resources to achieve desired screening results.[5]

While attention to health literacy as a factor in patient outcomes is documented and accepted, translating these concerns into practice requires more attention. Two articles in this issue report possible practical approaches to assessing literacy. Schwartz et al[6] describe how it is routine to collect sociodemographic characteristics on patient intake forms but that most of these documents are not able to identify patients with low health literacy. A variety of health literacy assessment tools exist for research purposes; however, their practical utility is limited because of the number of screening items. Patient-centeredness also means concern for patients' time; patients are not likely to complete forms if they are too long, and clinical practices are unlikely to adopt these forms for similar reasons. This study suggests the possibility of adding just 3 brief questions to intake forms, which could improve care by identifying patients who need extra literacy support.[6] Stagliano and Wallace[7] also describe how brief health literacy screening items would be more useful in primary care clinic populations since limited health literacy is strongly associated with poor health related outcomes. In their sample, the "confidence with forms" item described by Chew et al[8] was the best predictor of patients with both limited and marginal health literacy scores.[7]

In the era of meaningful use of electronic health record (EHR) requirements, a wealth of data are available for research and quality improvement, but there are also great challenges in terms of timely and cost-effective approaches to extracting accurate data. Investigators from Colorado provide a useful example of the logistics necessary to accomplish this task. This comparative effectiveness study of antihypertensive medications used a third party to extract and transform data, and they successfully navigated issues related to the institutional review board, health privacy, and waivers of informed consent.[9] Another article from Colorado looked into practice attitudes regarding meaningful use. Practices often had difficulty extracting data from their EHR because of the need to re-engineer documentation and required external assistance. Each practice bore the burden of this learning process, and the EHR vendor provided limited help.[10]

The proliferation of networks or consortia of PBRNs has the potential to provide improved infrastructure to facilitate larger sample sizes, generalizability across diverse patient populations, and an avenue for the broad dissemination of information. Likumahuwa et al[11] look into some of these issues, with a particular focus on how community practices partner with academic institutions. Commonly reported challenges for engaging in research were lack of staff time (90%), concern about lost productivity (80%), and lack of funding opportunities (70%). Bertram et al[12] discuss how effective communication is important for large networks conducting pragmatic trials to evaluate effectiveness in a setting and optimize a result that can be generalized to other practices. Pragmatic trials enroll "usual" primary care patients from the community rather than patients who meets tightly controlled research criteria and guidelines.

Practice-based research present a realistic venue to view the effectiveness, barriers, and cost of team-based care that is advocated as part of a patient-centered medical home. Robins et al[13] studied an example of team-based care in which a pharmacist helps manage hypertension using secure communication with patients. They also solicited opinions about extending this team-based care to clinic staff, including medical assistants, to collaboratively manage blood pressure. There were concerns about staff being stretched too thin, lack of financial incentives in a fee-for-service environment, and sustaining the proposed intervention once extramural funding ended. As new models of care and medical home transformation take place, it is also important to investigate what is already happening in practice and what varieties of successful care models are available. The article by Paddock et al[14] discusses how micropractice physicians, who are independent practitioners, use low overhead to allow for extended duration of office visits. It may be that there is not a one-size-fits-all transformation of a practice, and practice-based research can inform us of this variety.[14]

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This special PBRN theme issue demonstrates the value of practice-based research in conducting truly patient-centered research. PBRNs are useful laboratories in which to test theoretical research using real practices with real patients. There are common barriers for practices to overcome to engage in this research. With EHRs, many data are available, but use of time, costs, privacy concerns, and dealing with multiple vendors need to be streamlined. These articles represent a valuable contribution to stakeholders in the health care system, including patients, health care providers, practice managers, EHR vendors, and funding agencies, to further knowledge that will help practitioners continue to deliver high-quality primary care.

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