

EDITORS' NOTE

Fourth *Journal of the American Board of Family Medicine* Practice-based Research Theme Issue

Welcome to the fourth practice-based research theme issue published in as many years by the *Journal of the American Board of Family Medicine*. Practice-based research is receiving increased attention and funding nationally. Research conducted through practice-based research networks (PBRNs) continues to grow in the complexity of its research questions, the diversity of study participants, and the sophistication of interventions. In this issue we present original research and scholarly contributions with a broad range of design methodologies, including randomized trials, descriptive epidemiology, cross-sectional surveys, fascinating case studies, and important commentaries.

Community Engagement

Community engagement is an important priority for institutions receiving Clinical Translational Science Awards (CTSA), and PBRNs are important vehicles for conducting community-based research. PBRNs are expanding in size and growing in number in response to a heightened recognition of their history of successful recruitment for primary care studies. Bakken et al¹ used a mixed-methods approach to determine community physicians' interest in and barriers to participating in clinical research. The study also served the purpose of engaging clinicians in a research study, providing participants with new information about local resources and environment that support primary care research, as well as recruiting new practices into a CTSA-affiliated PBRN.

The recent increase in funding for community-based studies has encouraged a discussion of definitions and understanding of "community engagement." Williams et al² present a thoughtful case study describing a successful approach for conducting community-based participatory research with minority populations. Westfall et al³ highlight the recent evolution of the term "community-based research" to "community-engaged scholarship" by

promoting a definition that includes "the application of institutional resources to address and solve challenges facing communities through collaboration with these communities." The term *engaged* recognizes that the work is done *with* communities and the term *scholarship* is seen as more positive than research.

Bennett et al⁴ describe the use of a continuous quality improvement strategy to increase the delivery of preventive maternal care. Ten family medicine residency members' sites in the Interventions to Minimize Preterm and Low Birth Weight Infants through Continuous Improvement Techniques (IMPLICIT) PBRN participated. Quality improvement strategies are gaining momentum in outpatient practice, and this study provides a nice example of the implementation of statistical process control chart analysis.

Studies from the Trenches

From the Northeastern Ohio Network, McCord et al⁵ surveyed patients about their physicians' use of personal digital assistants (PDA) and how this may affect the physician-patient relationship. Patients rated interactions with their physicians more positively when physicians explained their use of a PDA.

From the Iowa Research Network, Levy et al⁶ evaluated 2 interventions to increase bone mineral density testing. Five practices were randomly assigned to a chart reminder alone intervention, a chart reminder plus a mailed patient education intervention, or to a comparison group of usual care. Specific chart reminders to physicians combined with mailed patient education increased the number of bone density tests. Bayesian hierarchical analysis made it possible to assess practice-level interventions when few practices are randomized.

Risk factors for and the prevalence of methicillin-resistant *Staphylococcal aureus* (MRSA) diagnosed in skin and soft tissue infections are described in a STARNet study by Parchman and Munoz.⁷ Patients working in or exposed to a health

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care setting were more likely to have a positive culture for MRSA.

Consortiums of Collaborating PBRNs

Consortiums of PBRNs that collaborate to increase the ethnic and geographic diversity are important for expanding the generalizability of practice-based research. Birtwhistle et al⁸ provide an interesting overview of the development of a national primary care sentinel network in Canada. This Canadian Primary Care Sentinel Surveillance Network is a network of PBRNs that will collect longitudinal data from practices across Canada to assess the primary care epidemiology and management of 5 chronic diseases.

In the United States, PRIME Net is a consortium of 8 PBRNs that focus on research addressing the health and health care of medically underserved populations. Study orientation with geographically dispersed clinicians is a primary challenge of conducting multinetwork research. Williams et al⁹ describe how PRIME Net developed internet-based training of physicians to support a research protocol to diagnose acanthosis nigricans. Froshaug et al¹⁰ report on a study in which a consortium of 9 PBRNs participated. Funded by the Robert Wood Johnson Foundation, the Prescription for Health initiative aimed to identify and evaluate techniques to improve the delivery of health behavior change strategies. Findings suggest the use of a brief, 2-question quality of life screening tool to identify patients with unhealthy behaviors associated with a poorer quality of life.

About PBRNs

Sloane et al¹¹ describe how PBRNs have bridged the gap between academic- and community-based practicing physicians, bringing many generalist physicians into the research community. They also set an agenda for greater PBRN involvement in research and the features of the mature PBRN.

Obtaining institutional review board (IRB) approvals from multiple organizations continues to be a bane for PBRN studies. Although others have discussed efficient strategies for facing the IRB challenge,^{12–14} Yawn et al¹⁵ present a case study of the usual hurdles and a few unanticipated problems faced by a multisite study required to obtain approval from 19 IRBs. These barriers are clearly impeding the progress of the PBRN movement and

adding to the delay in translating research into practice. If the purpose of an IRB is the protection of people as research participants, and not something specific to individual institutions, couldn't just one IRB be able to decide this?

More

This issue also includes a clinical review, a randomized controlled trial, and a clinical case report. Lynch¹⁶ provides us with an evidence-based overview of diving medicine. Recreational scuba diving is a growing sport and primary care physicians will be confronted with diving injuries and illnesses acquired in remote locations. In addition, common problems that are contraindications to diving include coronary artery disease, asthma, and diabetes along with more unusual problems like patent foramen ovale or history of spontaneous pneumothorax.

Fleming et al¹⁷ developed an exciting virtual reality simulation to improve alcohol screening and intervention clinical skills. The simulation combines video, voice recognition, and nonbranching logic to create an interactive environment that allows trainees to encounter complex social cues and realistic interpersonal exchanges. Using a randomized controlled trial design, professionals in the experimental group demonstrated significant increases in their alcohol screening and brief intervention skills.

Murdoch and Rosin¹⁸ describe a case of rapid onset weakness of the wrist flexor muscles associated with fever, sore throat, arthralgias, and myalgias, in a man who tested positive for Lyme disease. Strangely, the patient's European cousin had similar symptoms but not a positive finding for Lyme disease.

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