Practice-Based Research Networks in Stakeholder-Driven Social Work Research

Research on Social Work Practice 2020, Vol. 30(8) 819-831 © The Author(s) 2020 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/1049731520942591 journals.sagepub.com/home/rsw



Erin L. Kelly^{1,2}, Lisa Davis³, Monique Holguin², Lizbeth Gaona^{2,4}, Rohini Pahwa⁵, Sae Lee⁶, Laura Pancake⁷, Lezlie Murch⁸, Leslie Giambone⁹, and John Brekke²

Abstract

Purpose: The field of social work is evolving toward community-engaged, stakeholder-driven research in the context of evidence-based practice (EBP) and practice-based evidence (PBE). **Methods:** We propose that practice-based research networks (PBRNs) are an approach to conducting stakeholder-driven research that can be uniquely valuable for the field of social work. **Results:** We define the concept of a PBRN and demonstrate how it can address the development of complementary agendas for service improvement, social work science, policy development and advocacy, as well as highlight the challenges and benefits of participating in a PBRN. We provide details of our experiences with a mental health-based PBRN in Los Angeles County, the Recovery-Oriented Care Collaborative, to illustrate the processes outlined and inform our recommendations. **Conclusions:** PBRNs are an important form of community-based participatory research, which can help the field of social work with reconciling EBPs and PBE to improve service delivery.

Keywords

community mental health services, social work, practice-based research network, stakeholder-driven research

As a core mission, the field of social work has been devoted to delivering multifaceted social services to individuals suffering in our society, with a significant focus on those who have been marginalized. The degree to which those services are founded upon and guided by notions of charitable care, practice wisdom, or science has changed over time (Stone & Floersch, 2019). Beginning with the work of Jane Addams, it has been suggested that scientific methods and knowledge should have a framing and even determinant role in the progression of social work knowledge (Franklin, 1986; Rosiek & Pratt, 2013). What form this scientific frame and definition should take has varied over time, but the current momentum toward scientific realism indicates a receptivity to the integration of scientific methods into practice domains that could reflect the next era of social work (Stone & Floersch, 2019). However, a persistent challenge for social work is the gap between practice and research or, more broadly, the gap between practice knowledge and scientific knowledge (Ammerman et al., 2014; L. W. Green, 2008; Manderscheid, 2006), which leads to the question of whether we can have both science-driven practice and practice-driven science in social work.

Central to the tension of the role of science in social work are the competing valuations of evidence-based practice (EBP) and practice-based evidence (PBE; Palinkas, 2019). EBPs are policies, practices, programs, or interventions that were developed and tested in rigorous scientific settings, which can often favor the concerns of internal validity over generalizability. Conversely, PBE is generated in real-world settings with diverse populations, which means that it can potentially have broader applicability. When PBE is applied to randomized controlled trials (RCTs) of interventions in practice settings, they are called pragmatic trials, which generally means that

⁷ Pacific Clinics, Pasadena, CA, USA

⁸ Exodus Recovery, Culver City, CA, USA
⁹ Mental Health America of Los Angeles, Long Beach, CA, USA

Corresponding Author:

Erin L. Kelly, Department of Family and Community Medicine, Thomas Jefferson University, 1015 Walnut Street, Philadelphia, PA 19107, USA; Center for Social Medicine and Humanities, University of California, Los Angeles 760 Westwood Plaza, Los Angeles, CA 90024, USA.

Email: erin.kelly3@jefferson.edu

¹Jane and Terry Semel Institute for Neuroscience and Human Behavior at UCLA, Center for Social Medicine and Humanities, Department of Psychiatry and Biobehavioral Sciences, UCLA David Geffen School of Medicine, Los Angeles, CA, USA

²Suzanne Dworak-Peck School of Social Work, University of Southern California, Los Angeles, CA, USA

³ Center for Health Services and Society, University of California, Los Angeles, CA, USA

⁴College for Behavioral and Social Sciences, California Baptist University, Riverside, CA, USA

⁵ Silver School of Social Work, New York University, NY, USA

⁶ Didi Hirsch Mental Health Services, Culver City, CA, USA

within the RCT design there is a stronger focus on the applicability of the intervention to usual care conditions (such as the practitioners involved, the heterogeneity and representativeness of the client samples, setting factors, and sustainability) rather than on the conditions that favor internal validity and efficacy (Ford & Norrie, 2016).

A tremendous effort has been made to adopt EBPs into practice as the field has prioritized ensuring the quality of services and to improve the processes of implementation in the public sector (Aarons et al., 2011). Despite these efforts, the dissemination and implementation of EBPs are persistent challenges for the field. There is a lag of almost two decades between research findings and their adoption into communitybased practice (Contopoulos-Ioannidis et al., 2008; Morris et al., 2011), despite being highlighted as concern for decades by the National Institute of Mental Health (NIMH) Task Force on Social Work Research (Austin, 1992) and the Institute of Medicine (2001). This lag has been traced back to factors like high staff turnover, training costs, time constraints, reimbursement issues, lack of flexibility in the protocols, insufficient resources for academics to do translational research, and a disconnect between research and real-world practice (Addis et al., 1999; Horwitz et al., 2014; Powell et al., 2014). There has been growing recognition of the value of overcoming these issues through developing more community-engaged and stakeholder-driven research initiatives (Holkup et al., 2004; Lizaola et al., 2011), so that scientific knowledge better reflects the needs and settings where it is used.

In recent years, there has also been a drive to develop a Science of Social Work (Brekke, 2011, 2012, 2014; Brekke & Anastas, 2019; Reid, 2001) and to pursue research on the Grand Challenges of Social Work (American Academy of Social Work and Social Welfare, 2018; Uehara et al., 2013). The Grand Challenges movement has led to a mobilization of resources at the federal, state, and university levels to elevate the field's scientific contributions by addressing the most pressing issues of our society via research (Larkin et al., 2016; Uehara et al., 2017). However, these efforts are not without controversy (Anastas, 2014; Barth et al., 2014; Blau, 2017), with some social workers being concerned about a loss of service proficiency due to over-emphasis on research.

In order to bring social work to the forefront of applied research and to meet the Grand Challenges, it is important to preserve the core principles of service and social justice in social work by building them into social work's research methods. There are numerous names for this kind of research across fields, such as *community-based participatory research (CBPR)*, *community-partnered participatory research*, participatory research, participatory action research, communitybased research, or action research (Holkup et al., 2004; Lizaola et al., 2011; Sommerfeld, 2014). The central premise of these approaches is to change the traditional structure of academicdriven research toward empowering the community to guide the selection, conduct, and ultimate impacts of research. We propose that *practice-based research networks* (PBRNs) are a form of CBPR that can be used to develop, design, and conduct research that can preserve the values of social work by prioritizing the voices of stakeholders while conducting highquality, rigorous research. As we will see, PBRNs can also be distinguished from CBPR, given their focus on building a lasting logistical structure for conducting ongoing studies, providing rapid improvements to practice, and that they are primarily comprised of stakeholders associated with the agencies that provide services. In the next sections, we will define PBRNs, outline issues of structure and leadership, apply their principles to social work science and policy, and sketch out strategies that would facilitate the implementation and growth of PBRNs over time in social work.

PBRNs

Definition

PBRNs are collaborations between service stakeholders and academics that create bidirectional pipelines between research and clinical practice (Kelly, Kiger, et al., 2015; Westfall et al., 2007). PBRNs are designed to specifically focus on improving services and systems of care, which is why they are most often housed in service settings (Westfall et al., 2007). The goals of PBRNs are to identify questions that center on stakeholders' experiences and actively include stakeholders in research study development, data collection, data analysis, and disseminating and implementing research findings (Davis et al., 2012; Kelly, Kiger, et al., 2015). The stakeholders in PBRNs can refer to clients, involved family, practitioners, supervisors, administrators, community members, and researchers who are explicitly engaged in social service environments.

PBRNs engage in practice-based research which fills critical gaps in our understanding of (1) what leads to disconnections between recommended and actual care (challenges of daily practice), (2) whether EBPs work in applied settings with more diverse populations and contexts, and (3) how to create a mechanism for testing whether adaptations in care (due to policies, procedures, or programs) lead to benefits for the intended recipients (Westfall et al., 2007). Stakeholder involvement is critical as it leads to better targeting of questions that are both important and relevant to practice and research. PBRNs are built for continued collaboration, rather than a single project, which allows for cultivation of more effective dissemination and implementation of research findings into service settings.

PBRNs have been an engine for translational research in a number of disciplines in the U.S. health care system since the 1970s (L. A. Green, 1999; L. A. Green et al., 1978; L. A. Green & Hickner, 2006). The federal government through the Agency for Healthcare Research and Quality (AHRQ), and the National Institutes of Health (NIH) has often supported them. As of March 2019, the AHRQ listed 186 active PBRNs on its website, though only 2 explicitly include mental health providers (it is important to note that there are also nonregistered PBRNs; U.S. Department of Health and Human Services, 2019). Although the main focus of PBRNs has been on assessing and improving the quality of primary care, there is an increasingly

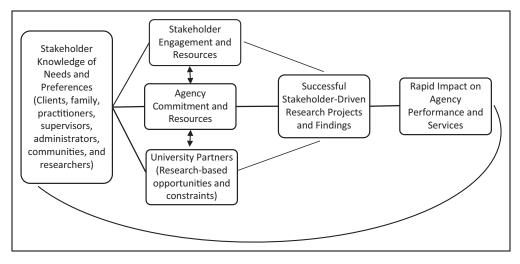


Figure 1. Model of community-academic partnerships within a practice-based research network model.

broad range of providers that have created PBRNs (e.g., specialty care, dentists, public health, mental health providers; Ammerman et al., 2014; Davis et al., 2012; Kelly, Kiger, et al., 2015; Sellers et al., 2012). However, social work has yet to leverage this mechanism despite it being highly congruent with the goals and values of social work research. PBRNs are an ideal model for social work because they mobilize stakeholders to develop research questions that center on their practice and priority areas while partnering with academic researchers to help to execute projects in a scientifically rigorous manner. The combination of university partners and stakeholder collaborators allows PBRNs to generate new research that can assess current services and use that data to develop solutions that rapidly improve practice, and as a result, shorten the lag between research and implementation (Riley et al., 2013). We propose that the PBRN model is an important approach that can be harnessed to improve social work research across the multiple service domains and sectors that comprise social work. In Figure 1, we outline an exemplary model for the conduct of PBRN research.

In a PBRN research model, stakeholder needs and preferences drive the selection of the research topics. By pursuing research topics that are relevant to practice, there is stronger buy-in and the PBRN team can focus on collecting and analyzing data with rigor, which in turn can be used to develop changes to practices, a mechanism that might not be otherwise supported by the existing agency structures and available resources. That said, participation in a PBRN also requires significant commitment from the agencies in the form of (1) time invested in listening to various stakeholders about the areas that are of most interest to them, (2) resources in the form of employee time, and (3) space to help conduct research (depending on the design of the research). PBRNs also necessitate investment from academic partners who need to develop research topics that can be funded, published, and completed with enough internal and external validity to become part of the scientific literature. The benefits of this partnership include development of research or new interventions that reflect

real-world conditions and can be used rapidly to change how services are provided, as well as building a structure for the iterative progression of practice-based knowledge. The steps of research in a PBRN model are presented in Figure 2. These steps encompass building the infrastructure, developing and completing studies, and consolidating the PBRN.

Benefits of PBRN Participation

PBRNs are valuable for social work practitioners because they create partnerships between stakeholders and academics that build upon findings from scientific literature and improve service quality and clinical outcomes through monitoring and ongoing empirical feedback. Social work practitioners and agencies often collect data for local, state, and federal oversight and funding agencies, which is onerous, can have duplicated content, and is generally not designed or used to impact practice. PBRNs are an opportunity for agencies to reflect on their practices and to obtain usable information about their services that can be disseminated back to the stakeholders rapidly. In our experience, stakeholders are genuinely concerned about whether their efforts have the intended effects, but they are rarely provided meaningful feedback through the data they collect for outside entities. Research is not limited to existing practices but can also identify treatment innovations that are collaboratively codified, studied, and implemented. PBRNs strive to provide direct care staff with feedback in an easily digestible format while also creating a mechanism for the providers' perspectives and experiences to reach the executive staff within these agencies who have leverage to use these findings to make changes. The engagement of all agency stakeholders in this feedback loop increases enthusiasm for developing data-driven service changes and thereby increases their likelihood of success. The data collected through these projects can be used to justify greater investment by funders through grants and contracts.

Academics can also benefit from participation in PBRNs. Collaboration with practitioners within a PBRN model means that research studies are conducted with committed partners,

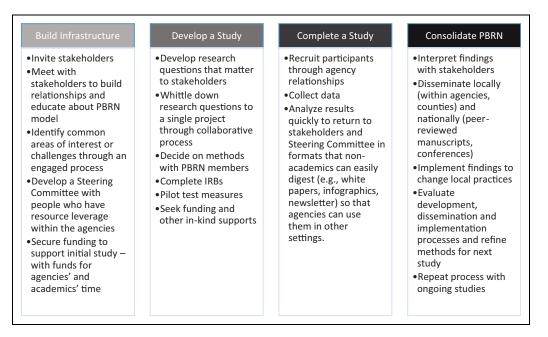


Figure 2. Steps of practice-based research network infrastructure building, research conduct, dissemination, and implementation that close the loop between research and practice.

which translates into successful recruitment of participants, assistance in interpreting results, and discovery of new nonacademic audiences. In our experience, projects conducted by PBRNs have a high likelihood of success due to the mutual investment in the project. Co-creation of the research questions ensures that they are theoretically grounded and informed by on-the-ground observations that relate to concerns central to those questions and their contexts (Mays et al., 2013). Collaborating on research methods ensures smoother execution of study recruitment and data collection. High levels of communication by the agency and academic partners throughout the process helps to reduce challenges related to data collection. This approach also provides valuable learning opportunities for undergraduate, graduate, and postdoctoral students who are exposed to the operations and concerns of participating agencies at a more intense level (Binienda et al., 2018). Finally, there is higher likelihood for the findings to be adopted within the agencies, leading to a more rapid impact on the populations that we aim to help while also striving to generate generalizable knowledge about services (Mays et al., 2013; Riley et al., 2013). Next, we will outline how a PBRN's structure and leadership can establish and preserve their core values for all participants.

PBRN Structure, Leadership, and Participatory Processes

PBRN Structures

Unaware of the benefits of the PBRNs, both academic and social work practice organizations may be hesitant to adopt a new approach to problem-solving (Pinto et al., 2019). PBRNs have been developed in many forms (for a review, see Davis et al., 2012), including differences in member composition (single vs. multispecialty), affiliation (nonprofits, health systems, academic institutions), size (number of members, locations, geographic regions), and organizational structure (community meetings, steering committees, executive leadership). There are several common elements to the structure of PBRNs (Hayes & Burge, 2012; Kelly, Kiger, et al., 2015; Westfall et al., 2019): (1) a mission statement, (2) selection of an overall leader (preferably a practitioner), (3) ongoing relationship with academic research partners, (4) support staff to execute research tasks (postdoctoral fellow, research assistant), (5) a board or mechanisms within agencies to gather feedback (steering committee, client advocacy groups, stakeholder boards), and (6) a set of tools or processes that are used to disseminate findings within agencies. PBRNs tend to expand in scope over time, initially focusing on everyday issues and gradually growing to take on more difficult projects with more involved methods (e.g., building shared data systems, testing system level interventions, Godfrey et al., 2018). The flexibility of the model allows stakeholders to adapt it to their context, which is part of its value.

The Recovery-Oriented Care Collaborative (ROCC)

The ROCC is a PBRN focused on the integration of health and mental health services for the seriously mentally ill population that was established in 2012 by four community-based mental health agencies (Kelly, Kiger, et al., 2015). Drawing on our experience with the ROCC, we will outline a structure and set of processes that were useful to the development and functioning of ROCC. The ROCC consists of four large community mental health agencies, Didi Hirsch Mental Health Services, Exodus Recovery, Mental Health America Los Angeles, and Pacific Clinics. These agencies collaborate with researchers at the Suzanne Dworak-Peck School of Social Work to develop research projects (www.roccpbrn.com). As of June 2019, the ROCC has completed data collection on five studies, published four manuscripts (Kelly, Davis, & Brekke, 2015; Kelly et al., 2018; Kelly, Kiger, et al., 2015; Pahwa et al., in press), obtained two grants to support our network, and built collaborations and support with other mental health PBRNs in Ohio, Colorado, New York, and Washington.

Mission Statement

Development of a mission statement serves to provide an overall conceptual understanding of the PBRN goals (Westfall et al., 2019). Mapping out the population and domains that would be the focus of PBRN helps to avoid confusion among members while also reminding them of their commitment to share ownership. The ROCC's mission statement reflected our shared commitment to addressing the care of individuals with serious mental illnesses.

The ROCC is a PBRN with a mission to improve the quality of physical health and mental health services provided to individuals with serious mental illness living in Southern California and to help reduce socially determined disparities in physical health/mental health that lower quality of life for this population. The ROCC is designed to facilitate participatory research and partnerships among community-based organizations, physical health and mental health care providers, mental health consumers and experienced researchers to examine factors that directly impact innovations and best practices in treatment and service delivery systems for individuals with serious mental illness. The focus of the collaborative is to identify pertinent areas of research that can produce effective and immediate improvements in community-based health/mental health care for this vulnerable and underserved population.

Leadership

In our experience, the director of the PBRN should be a person who has the ability to appreciate the perspectives of practitioners and academics, has resource leverage within their agency, and is well-respected by stakeholders. We suggest that the leader be a person from the practitioner group as this reflects the mission of stakeholders driving the research agenda. High turnover at agencies is a challenge and the ROCC has had four changes in the director position as of 2019 (due to agency partners leaving their employers), although we have had good consistency in the membership on the Executive Committee. Similar to the experiences of stakeholder-driven groups, the consistent participation of the partner organizations, rather than the individual members, is the important element for allowing the network to retain its cohesion despite leadership and membership turnover (Israel et al., 2001).

Formation of a steering committee consisting of agency executive staff members, other stakeholders, along with the research team is a key structure for facilitating communication and decision-making processes within a PBRN (L. A. Green et al., 2005; Hayes & Burge, 2012; Westfall et al., 2019). This committee provides a forum to help ensure that network activities reflect valued areas within the stakeholder community and have buy-in across agency levels as well as scientific merit. The presence of this committee also allows for easier transitions when there is turnover in the steering committee. Regular face-to-face and virtual communication among stakeholders to vet study ideas and plan study logistics and dissemination of findings are essential (Hayes & Burge, 2012; Westfall et al., 2019). The steering committee can also establish a participatory structure and process for developing and conducting the studies, which supports differing needs and goals among stakeholders while also obtaining consensus on projects. These structures must support a range of priorities that emerge from this collaboration and calls for a dialogic approach in which multiple viewpoints and voices are featured, and no singular voice claims final authority. Preestablished relationships among community partners and researchers can aid successful creation of social work PBRNs due to the existing trust between partners (Kelly, Kiger, et al., 2015). In our experience, under the right partnership conditions, and with responsiveness to key struggles among partners, the tension between the research and practice traditions has a dynamic and creative function with potential for the participants to capitalize on their complementary strengths.

A joint steering committee also helps to maintain vigilance regarding power dynamics between community members and university-based researchers involved in PBRNs. Since academics possess expertise in research methodology as well as EBPs and other relevant research-related areas, it is possible for them to influence the direction of projects, potentially in subtle ways, to align with their existing research agendas. This dynamic may be exacerbated by community members' deference and view of academics as having ultimate authority pertaining to all aspects of the research process. Researchers have a special obligation to attend to the different interests of community stakeholders, especially as they relate to topic selection in participatory research (Israel et al., 2001). While academics can drive major methodological considerations in PBRNs, without genuine ownership of topics under study among community members, they will disengage and the innovative potential of the approach will stall. Steering committee meetings are also an important opportunity for informal learning experiences for academics and practitioners. Through these interactions, academics can develop a more nuanced understanding of the daily realities of service provision, and academics can help practitioners better understand the importance of assuring the quality of research methods and protocols. Building a steering committee with agency leadership and careful attention to featuring their voices in decision-making processes prevents academic partners from co-opting research agendas. It is also helpful to hold PBRN meetings at community-based locations on a frequent basis to reinforce the locus of power within the service community (Hayes & Burge, 2012; Kelly, Kiger, et al., 2015).

Stakeholder Involvement

Over the course of a PBRN's activities, there can be different levels of involvement from stakeholders (i.e., consumers, families, providers, academics). On the most basic level, stakeholders generate research questions and each PBRN can determine what methods they use to cultivate those ideas within their group. The steering committee can determine research methods that are feasible for all partners and are as rigorous as possible. Staff, peers, and consumers at participating agencies may conduct or help with recruitment and conduct of data collection. Research partners can analyze the data for individual agencies and for the PBRN network as a whole. The steering committee can help to recruit staff or consumers to provide input or to help facilitate interpretation, dissemination, and implementation of results. Concurrent to the conduct of any study, stakeholders may discuss and begin development of subsequent projects and improvements to the processes for dissemination and implementation.

In the initial formation of the ROCC, agencies had representatives from consumer, peer provider, clinical, and executive positions attend three all-day meetings along with the academic partners (Kelly, Kiger, et al., 2015). These meetings were used to generate the mission statement of the PBRN, develop research questions, select a first project, and build relationships among partners. Another meeting of all those participants was completed after the initial study to disseminate the results and to begin development of a second project. For the first two projects, research findings were shared with all participants of the in-person meetings and other stakeholders using two-page handouts. PowerPoint presentations of results were shared with the steering committee. Feedback on the presentation of the results indicated that our distribution was limited and that graphs were complicated for all individuals to understand. Refinement of our processes has been ongoing and has led to modification of our processes and modes of sharing information, such as emails with embedded results, infographics, and presentations in agency-wide meetings in addition to those made to the steering committee (more details provided below). Research questions for the first two projects were fully generated by the broader group, and research questions were developed using input from mental health consumers, providers, and executive staff (details on these processes are available in Kelly, Kiger, et al., 2015; Kelly, Davis, & Brekke, 2015; Kelly et al., 2018). Subsequent projects have been developed (within the steering committee and in collaboration with academic and PBRN partners nationally) in domains that aligned with service deficits identified in the initial studies. The PBRN Steering Committee continually vets potential improvements to every step of the research process to improve the efficiency of PBRN initiatives.

Research Support Staff

Across the stages of PBRN development, there can be different levels of resources available for supporting the collaboration's

activities. Fully developed PBRNs may employ full-time PBRN facilitators who help to preserve relationships with practitioners and ensure that PBRN activities (meetings, data collection) are prioritized while also performing the basic functions of research projects (L. A. Green et al., 2005). Basic tasks include housing the research instruments developed or selected by PBRN members, maintaining institutional review board (IRB) protocols, performing literature reviews, completing data analysis, and preparing written materials (white papers, presentations, and manuscripts for peer review). Less well funded PBRNs may have access to a graduate student, postdoctoral fellow, agency intern, or research assistant staff who can perform these tasks as part of their professional development. The ROCC was supported by the Clinical and Translational Science Institute at the University of Southern California with US\$30,000 to support the formation of the PBRN and by collaboration with a research navigator, who helped to facilitate the early coordination of the PBRN with agency staff (Kelly, Kiger, et al., 2015). Those functions were eventually performed by a combination of agency and

academic staff after USC invested an additional US\$100,000 in the PBRN initiative. We also obtained a US\$5,000 grant to build our collaboration with PBRNs in Ohio and Colorado.

Dissemination and Implementation of Findings

Development of mechanisms for the dissemination and uptake of findings from practice-based research is critical (Creason et al., 2019; Palinkas, 2019). Communicating the relevance of study results to practitioners faced with the need for immediate solutions to clients' everyday problems is a challenge that affects the successful uptake of findings in community settings. Identifying and engaging key agency champions who are dedicated to the unique potential of a PBRN and who can communicate its value to other providers at each community site is the first step to ensure better dissemination of findings. PBRN research partners focus on rapidly returning findings from studies in user-friendly and visually appealing formats with interpretation of findings in nontechnical language. Infographic-style brief reports with findings represented using pictorial images and everyday language, as opposed to research jargon and graphs and charts, can make staff significantly more receptive to digesting the findings.

The second step is to cultivate the infrastructure for implementing those findings. For example, in one study, we examined provider attitudes and training related to addressing substance use among clients with serious mental illness. Results from the study are currently being used to develop trainings for providers, partly because stakeholders promoted the investigation in this area and used the findings to advocate for improvements in practice. There are many similar ways that PBRN models can be applied to existing social work initiatives that can enhance their success.

Creating Local Learning Collaboratives

PBRNs can be used to host conferences that include workshops regarding how to develop academic-practice partnerships, how to support established PBRNs, and how to improve rapid, immediate dissemination and implementation of findings. Conferences could be used to help develop new PBRN collaborations and methods or to refine existing processes. For example, conferences could promote development of local learning collaboratives to help find agencies that are receptive to PBRN involvement. Participants can be encouraged to develop their own PBRNs or to join existing ones. Conferences could also be important opportunities for encouraging existing mental health PBRNs to register with AHRQ, so that mental health PBRNs are accurately captured in the national landscape and to make it easier for PBRNs to find each other for learning opportunities and collaborations.

Exposure to different PBRN models at local conferences can also help agencies and academics to determine how they can best adapt a PBRN model to their research questions and resources. There are a wide variety of structures possible for PBRNS (L. A. Green et al., 2005), and numerous articles that help to guide how to build a PBRN (Hayes & Burge, 2012; Kelly, Kiger, et al., 2015) and conferences could be an important venue to discuss the merits of various models. Importantly, within the PBRN conferences, there can be learning opportunities around dissemination and implementation processes, which are often a weak point for the adoption of EBP and PBE evidence. Within local learning collaboratives, there needs to be opportunities for agency partners to discuss how they implement their findings and create learning opportunities for how to better use findings rapidly. Next, we describe how the PBRN model can be applied to the Grand Challenges of Social Work, policy development and advocacy.

Relevance to the Social Work Grand Challenges

In 2013, the Academy of Social Work and Social Welfare launched the Grand Challenges of Social Work Initiative that outlined crucial national initiatives for the field of social work (Barth et al., 2014; Uehara et al., 2013). The grand challenges were created to reflect salient, critical national priorities as outlined by various practice fields and by the public (Uehara et al., 2014). They revolve around national initiatives that according to scientific evidence are feasible, measurable, and attainable within a decade (Barth et al., 2014). In an effort to move the field toward resolving chronic social problems, the Grand Challenges are designed to engender collaborative efforts and generate engagement of various stakeholders including social workers, the public, and policy makers (Uehara et al., 2014). The core values of PBRNs are to work in alliance and in equal partnership with community-based stakeholders to address pressing real-life problems that are of interest to the people receiving and delivering those services and using those results to rapidly improve practice.

Therefore, PBRNs are a natural fit to the agenda of the Grand Challenges.

The Grand Challenges are designed to provide an overarching framework for unifying organizations and partners that typically operate in silos. PBRNs are also designed for collaboration among diverse, invested community-based stakeholders from various disciplines such as practitioners, family members, researchers, faculty members, students, deans, directors, advocates, the public, and policy makers. The goals of the Grand Challenges projects are to create information that can be used rapidly to change practice. PBRNs' objective of quick dissemination of empirical findings aids the pursuit of accomplishing the Grand Challenges in an efficient and timely manner. PBRNs have a shared commitment and equal investment from practitioners and community-based stakeholders, which provides PBRNs with advantages for subsequent dissemination and implementation activities aligned with efforts associated with the Grand Challenges. For example, the Grand Challenge of homelessness is a complex and pressing issue that requires a multifaceted and interdisciplinary response. A PBRN approach could allow researchers and practitioners to develop, adapt, and rapidly integrate information about practice issues that hinder homelessness services that can be used on local and generalizable levels. Given the call for more collaborative relationships between research and practice (Austin, 1992; Bent-Goodley, 2016; Brekke et al., 2007), PBRN models could be an appropriate model to bridge the divide between academics and practitioners working iteratively on the Grand Challenges.

Policy Impacts and Advocacy

Social work is a field often shaped by local, state, and national policies that reflect the zeitgeist of their time, which can be highly variable. Social workers have a tremendous amount of knowledge and experience in delivering services in their domains, yet they are often asked to adapt to frequently shifting political agendas that may override their own judgments of what is efficacious (Jansson, 2019). PBRNs offer a unique opportunity for helping to familiarize practitioners with the processes of research as well as opportunities to access and synthesize existing research. Part of the iterative process of developing stakeholder-driven research with academics may lead practitioners to become better informed of the latest research evidence and raise their awareness of other initiatives and approaches. Academics may become better acquainted with the many real-world complications that have led to the problems that they hope to study and this may alter how they conceptualize existing literature's usefulness for implementation. By helping both academics and stakeholders become more aware of their counterpart's perspectives, both would be better able to recognize how policies shape practice and how to better collaborate on advocacy on those policies.

PBRNs are positioned to conduct a thorough and realistic examination of the impact of policies on providers and consumers while also serving as a vehicle for policy advocacy. For example, it well established that fragmented mental health care system insufficiently addresses the clinical care of consumers or their associated needs (Glied & Frank, 2009). This is particularly true for sexual, racial/ethnic, and gender minority and rural communities (Cook et al., 2014; Dinwiddie et al., 2013; Fontanella et al., 2015; Miranda et al., 2008; Su et al., 2016). PBRNs could champion policy reform. Due to their efficiency, flexibility, and grounding in realistic practice expectations and needs, PBRNs offer the benefit of advocating for specific policies found to be successful when implemented on the ground and a funnel for developing new policies based on the lessons learned from the network's findings. The network's ability to disseminate and deploy research findings rapidly translates to relevant and meaningful knowledge for practitioners, policy makers and consumers. Stakeholders can inform researchers about the issues that matter most to them, prioritize topics for study based on practice importance, help adjust study design to meet the realistic needs of clinical process and agency structure, contribute to study logistics, and participate in interpreting results and thus create a genuine space for science, policy, and practice to converge.

PBRNs may be able to tackle investigations of complex clinical programs and further investigate the conditions under which and for whom services can be most effective. A PBRN approach could place greater emphasis on contextual factors such as, individuals, caregivers, stakeholder relationships, institutional settings, and infrastructure when evaluating services. This approach can also incorporate more realistic community contextual factors to examine the effectiveness, thus adding to the practical value needed to inform policy makers in their decision to continue or expand existing programs. Although practitioners are crucial to policy development and advocacy for PBRNs, they cannot be the only stakeholders involved in the process. Consumers and family members are necessary given their lived experience expertise. Advocacy groups, such as the National Alliance on Mental Illness, have a long history in advocacy and can also play a vital role in shaping policy to more comprehensively support individuals with serious mental illness.

Frequent policy changes from funders, regulators and accreditors, who have increasing expectations of services are common in the landscape of human services. However, PBRNs can alter the degree that those policies are enacted without input from stakeholders by cultivating community networks that can advocate for themselves and those they serve. Policy implementation without provider buy-in has been associated with staff burnout, poor morale, turnover, and ultimately impacts the quality of care (Kim & Stoner, 2008; Lloyd et al., 2002). PBRNs are uniquely poised to incorporate stakeholders in examining how policy changes affect practice in real settings given their emphasis on practitioner engagement, information consensus, and real-world application. Furthermore, their focus on settings where services actually take place make them ideal platforms for addressing some of the most critical, complex, and vexing issues within current human service policies.

Funding and Support of PBRNs

Adequate resources to support and sustain PBRN partnerships are key to their future success. Existing funding for community-engaged research is insufficient and, historically, undervalued by federal funding agencies (Westfall et al., 2007). Particularly in public sector agencies, funding streams often dictate regimented productivity requirements for community partners and time allocated to research activities is in addition to, and not in place of, such requirements. Time demands are also an issue for academics, who are under pressure to produce results that warrant peer-reviewed publications, academic conference presentations, and that can secure competitive grant awards in order to obtain tenure and promotions. Securing initial financial support for the creation of a PBRN aimed at social work issues may be a challenge that is addressed next.

Grant Funding

Funding mechanisms that will support the development, infrastructure, and expansion of PBRN networks locally and nationally are essential to their success. For example, in 2007, the Robert Wood Johnson (RWJ) Foundation supported the development of 12 research networks in public health (Mays, 2013). Their support and guidance led to the creation of 30 PBRNs (18 were supported by RWJ but many were created with outside funds), and those PBRNs conducted 62 research projects as of 2013. Importantly, they boosted participation in research activities compared to a national sample of public health agencies, and 87.4% of PBRN agencies applied the findings within their own agencies compared to 32.1% nationally (Mays, 2013). PBRN agencies were also successful at dissemination of their findings as 76.5% helped others apply findings compared to 18% nationally. This suggests that investment in PBRNs has observable benchmarks of success for both academic and agency partners.

Grant mechanisms are needed that will allow for the building of PBRN infrastructure and the conduct of multiple studies across multiple years. Funding for infrastructure building should include funds for practice facilitator staff (allowing for release from billing obligations), some support for training of graduate and doctoral students, and funds to offset costs for staff participation by agency partners (Borkovec et al., 2001). AHRQ provides links to several organizations (RWJ, NIH, AHRQ, Patient-Centered Outcomes Research Institute [PCORI]) that support PBRN research for primary care networks on their website. For example, PCORI provides community engagement grants that can be used to support the formation of community-based and participatory research networks, though they do not have a mechanism for sustaining these networks. Funding mechanisms should also support the dissemination and implementation of findings within practices and in academic settings. NIH has three main mechanisms for dissemination and implementation grants through NIMH and National Institute on Drug Abuse (NIDA) but increased

funding for these mechanisms would facilitate support of the wide range of research for dissemination and implementation that are under the purview of social workers. Logistical strategies can help alleviate some time constraints, such as using virtual platforms for meetings and aligning study topics with agency initiatives to capitalize on staff time and effort. Ultimately, significant will to invest in this approach is needed from both agency and academic partners' respective organizations if social work is to capitalize on PBRNs as a means of finding solutions to dynamic, complex. and ever-changing social problems. National social work organizations are an ideal source for pooled funding opportunities for the development of PBRNs within social work.

Training Opportunities

PBRNs can be training grounds for graduate students, practitioners, and executive leadership. Helping to conduct research projects for a PBRN helps to expose social work students to a broader variety of applied settings than they normally would be. They learn how to design research projects within the settings where the research will be conducted, which can sensitize students to how their work may affect those settings particularly with regard to the time demands made of participating agencies. The insights gained from PBRN projects may help agencies to prioritize and develop training for their staff in areas of deficit. This is a key outcome for agencies who participate in a PBRN to help develop iterative improvements in their services and requires careful attention from all partners.

Field departments in schools of social work throughout the country and internationally provide a natural structure and a set of linkages for the development of PBRNs that include students. Bringing field personnel and academic researchers together can provide a forum for exploring, discussing, and learning about PBRNs. It also provides a more comfortable venue for agency personnel to develop a coequal partnership with academic partners and to begin to identify knowledge agendas that can be shared and mutually developed. This can be an important training opportunity for retaining former students who have interest in both research and practice and to encourage them to stay engaged with faculty after graduation.

Lessons Learned and Ongoing Challenges

PBRNs have not emerged in the applied social sciences as they have within medicine (Kelly, Kiger, et al., 2015; McMillen et al., 2009). There are several reasons for this. First, funding is traditionally built around specific projects and does not support the long-term infrastructure required to support collaborations across projects (McMillen et al., 2009). Without significant investments in PBRNs for all the stages of their development, their research, and also for the dissemination and implementation of those findings, PBRNs will struggle to gain a foothold. PBRNs in medicine have been heavily invested in by numerous federal and private agencies such as AHRQ, NIH, and the RWJ Foundation, but their funding has also been time limited. There are encouraging signs of investment in stakeholder-driven research by PCORI, but funds are needed to ensure that these initiatives are supported over time instead of only supporting project-specific activities.

Second, time is a premium for practitioners and for academics. It can take significant time and effort to develop the relationships and trust required to build a PBRN collaboration and to complete research projects. Having a dedicated support person or persons who can help to execute the tasks of the PBRN and to alleviate burden from other partners can greatly ease the time commitment from many members. However, regardless of the structure of the PBRN, this form of research is an investment and may take several years to reach its full potential to generate fundable research and peer-reviewed publications.

Third, PBRNs reflect the tension between local and generalizable knowledge (Ammerman et al., 2014; McNeece & Thyer, 2004). This is a great promise and challenge for PBRNs. The challenge is that relevant local knowledge about specific populations and settings might be of little interest to funders or peerreviewed journals. At the same time, there are often limits to the generalizability and applicability of existing scientific knowledge to specific local settings. This has manifested as the conflict between PBE and EBP. Within the practice of social work, some who have attempted to reconcile these tensions have espoused the value of practice guidelines (Rosen & Proctor, 2003). Practice guidelines are decision-making tools, developed through systematic compilation of empirically tested knowledge, which can help guide practitioners to identify and implement interventions that address their targeted outcomes. PBRNs could be an important mechanism for the development and refinement of practice guidelines. The promise of PBRNs is that they can traverse local and generalizable knowledge in ways that other research models cannot. This also speaks to the importance of having a stakeholder-centered model with strong academic partners that commit to working together over time.

Fourth, the PBRN research process poses challenges that are constantly negotiated between the academic and stakeholder partners. As an example, research completed with academics is slower than fast-paced, action-oriented agencies may expect. There are delays due to applications for funding, obtaining IRB approvals, pilot testing, and rigorous analysis that may be frustrating to community partners (Davis et al., 2012; Kelly, Kiger, et al., 2015). It is also important for the partners involved to accept that research findings can be confirming or disconfirming to their beliefs or practices. This needs to be openly discussed and negotiated as part of the purpose of a PBRN. For the academic partners, the time-consuming nature of communityengaged research may be a source of frustration, as they must meet productivity benchmarks for tenure and academic promotions. Managing expectations of all stakeholders requires vigilance and creativity to ensure that all partners are benefiting from participation (Kelly, Kiger, et al., 2015).

Fifth, research by PBRNs has proven to have value for addressing issues of health equity among communities and populations that are often overlooked in traditional RCTs (Wallerstein & Duran, 2010; Westfall et al., 2019). Due to their location within the community and their relationships with populations that might otherwise avoid research participation (by choice or exclusion), PBRNs are an important means for investigations of race, ethnicity, and the social determinants. They can also provide a means to note potential issues of health disparities within their practices, investigate, and monitor whether changes were made effectively as a result of attempts to redress the health equity issues (Westfall et al., 2019). This is particularly important when implementing treatment guidelines, as PBRNs can be important testing grounds for testing whether guidelines are effective for all clients (Hickner & Green, 2015).

Finally, PBRNs may be best viewed across longer frames. Numerous articles have been written about the lessons learned by other PBRNs, which allow for thoughtful review of how infrastructures and forms of collaboration with PBRNs have changed over time and how PBRNs have impacted practices (Hickner & Green, 2015; Westfall et al., 2019). PBRNs are subject to the same forces that impact practitioners and systems of care. In retrospective examinations on the changes among U.S. PBRNs since the 1970s, the growth of PBRNs and their persistence is clear (Hickner & Green, 2015; Westfall et al., 2019). Some established networks have been able to set up data linkage across practices, which is allowing them to conduct multiple, large-scale projects than was previously possible (Hickner & Green, 2015; Westfall et al., 2019). However, national policies continue to shift how practices are managed and operated, which has created opportunities and difficulties for PBRNs. For example, among primary care-based PBRNs, Hickner and Green (2015) note that the Affordable Care Act (ACA) increased demand for their services but also led to more consolidation of smaller practices into large health care systems. The loss of autonomy at the local practice level may have led to decreased clinician time and energy to investment in PBRN studies evaluating ways to improve primary care. Conversely, when management appreciates the value of PBRN research, the consolidation of practices has allowed for more sophisticated projects than were previously possible and is a promising approach that should be monitored for the future. For mental health providers, the ACA included parity for mental health conditions. In states where Medicaid was expanded, there have been significant gains in access for mental health and substance use treatment (though access disparities persist; Collins et al., 2018; Creedon & Cook, 2016). Despite these gains, participation in research may be even more important to demonstrate the value of existing mental health practices, address persisting disparities, or help agencies to adapt to the changing policy landscape in a data-driven manner. Due to the increased resources in mental health services, mental health agencies may be better able to participate in PBRN research than was previously possible (e.g., invest in long-term projects such as data sharing).

Conclusion

Those who believe that the growth of science and research in social work is critical to its future and those who would prefer social work to remain a largely applied practice profession have divided social work. PBRNs are a model that could help to facilitate research that augments rather than detracts from social work as a practice profession. PBRNs can be a tool that allows for a smooth integration of research and practice concerns for practitioners and researchers who are willing and supported to make the investment of time, energy, and resources. The PBRN research process poses challenges that are constantly negotiated between the academic and stakeholder partners, but this process can become synergistic and transforming to everyone involved. The ultimate goal of PBRNs is to help shape the systems of care toward meaningful improvements. PBRNs in the field of social work have great promise to generate rigorous knowledge and timely solutions aimed at addressing the complex needs of vulnerable populations in real-world settings, thereby helping to bridge the practice-research gap. Although the approach may challenge both practitioners and academics to realign their respective roles and priorities, such a course can advance both practice and theory to better address the problems of living that unite our profession and its science.

Acknowledgments

We would like to thank all the members and participating agencies in our practice-based research network, the Recovery-Oriented Care Collaborative. We also owe our gratitude to the Suzanne-Dworak-Peck School of Social Work for investing in our collaboration.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Erin L. Kelly (D) https://orcid.org/0000-0003-4629-9661

References

- Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health* and Mental Health Services Research, 38, 4–23.
- Addis, M. E., Wade, W. A., & Hatgis, C. (1999). Barriers to dissemination of evidence-based practices: Addressing practitioners' concerns about manual-based psychotherapies. *Clinical Psychology: Science and Practice*, 6, 430–441.
- Agency for Healthcare Research and Quality (AHRQ). (2019). Practice-based research networks, research in everyday practice, registry map. U.S. Department of Health and Human Services. Retrieved March 20, 2019, from https://pbrn.ahrq.gov/pbrn-regis try/pbrn-registry-map

- American Academy of Social Work and Social Welfare. (2018). The 12 grand challenges. http://grandchallengesforsocialwork.org/
- Ammerman, A., Smith, T. W., & Calancie, L. (2014). Practice-based evidence in public health: Improving reach, relevance, and results. *Annual Review of Public Health*, 35, 47–63.
- Anastas, J. W. (2014). The science of social work and its relationship to social work practice. *Research on Social Work Practice*, 24, 571–580.
- Austin, D. (1992). Findings of the NIMH task force on social work research. *Research on Social Work practice*, 2, 311–322.
- Barth, R. P., Gilmore, G. C., Flynn, M. S., Fraser, M. W., & Brekke, J. S. (2014). The American academy of social work and social welfare: History and grand challenges. *Research on Social Work Practice*, 24, 495–500.
- Bent-Goodley, T. B. (2016). Social work's grand challenges: Mobilizing the profession. Social Work, 61, 197–198.
- Binienda, J., Neale, A. V., & Wallace, L. S. (2018). Future directions for practice-based research networks (PBRNs): A CERA survey. *Journal of the American Board of Family Medicine*, 31, 917–923.
- Blau, J. (2017). Science as a strategy for social work. Journal of Progressive Human Services, 28, 73–90.
- Borkovec, T. D., Echemendia, R. J., Ragusea, S. A., & Ruiz, M. (2001). The Pennsylvania practice research network and future possibilities for clinically meaningful and scientifically rigorous psychotherapy effectiveness research. *Clinical Psychology: Science and Practice*, 8, 155–167.
- Brekke, J. S. (2011, January). It's not about fish and bicycles—We need a science of social work. Aaron Rosen lecture [Paper presented]. The society for social work and research annual conference, Tampa, FL.
- Brekke, J. S. (2012). Shaping a science of social work. Research on Social Work Practice, 22, 455–464.
- Brekke, J. S. (2014). A science of social work, and social work as an integrative scientific discipline: Have we gone too far, or not far enough? *Research on Social Work Practice*, 24, 517–523.
- Brekke, J. S., & Anastas, J. W. (Eds.). (2019). Shaping a science of social work: Professional knowledge and identity. Oxford University Press.
- Brekke, J. S., Ell, K., & Palinkas, L. A. (2007). Translational science at the national institute of mental health: Can social work take its rightful place? *Research on Social Work Practice*, 17, 123–133.
- Collins, S. R., Gunja, M. Z., Doty, M. M., & Bhupal, H. K. (2018). First look at health insurance coverage in 2018 finds ACA gains beginning to reverse. Commonwealth Fund.
- Contopoulos-Ioannidis, D., Alexiou, G., Gouvias, T., & Ioannidis, J. (2008). Life cycle of translational research for medical interventions. *Science*, 321, 1298–1299.
- Cook, B. L., Zuvekas, S. H., Carson, N., Wayne, G. F., Vesper, A., & McGuire, T. G. (2014). Assessing racial/ethnic disparities in treatment across episodes of mental health care. *Health services research*, 49(1), 206–229.
- Creason, A. H., Ruscio, A. C., Tate, K. E., & McGraw, K. L. (2019). Accelerating psychological health research findings into clinical practice through the Practice-Based Implementation network model. *Military Medicine*, 184, 409–417.

- Creedon, T. B., & Cook, B. L. (2016). Access to mental health care increased but not for substance use, while disparities remain. *Health Affairs*, 35(6), 1017–1021.
- Davis, M. M., Keller, S., DeVoe, J. E., & Cohen, D. J. (2012). Characteristics and lessons learned from practice-based research networks (PBRNs) in the United States. *Journal of Healthcare Leadership*, 4, 107.
- Dinwiddie, G. Y., Gaskin, D. J., Chan, K. S., Norrington, J., & McCleary, R. (2013). Residential segregation, geographic proximity and type of services used: evidence for racial/ethnic disparities in mental health. *Social science & medicine*, 80, 67–75.
- Fontanella, C. A., Hiance-Steelesmith, D. L., Phillips, G. S., Bridge, J. A., Lester, N., Sweeney, H. A., & Campo, J. V. (2015). Widening rural-urban disparities in youth suicides, United States, 1996-2010. *JAMA pediatrics*, 169(5), 466–473.
- Ford, I., & Norrie, J. (2016). Pragmatic trials. New England Journal of Medicine, 375, 454–463.
- Franklin, D. L. (1986). Mary Richmond and Jane Addams: From moral certainty to rational inquiry in social work practice. *Social Service Review*, 60, 504–525.
- Glied, S. A., & Frank, R. G. (2009). Better but not best: Recent trends in the well-being of the mentally ill. *Health Affairs*, 28, 637–648.
- Godfrey, E. M., West, I. I., Holmes, J., Keppel, G. A., & Baldwin, L. M. (2018). Use of an electronic health record data sharing system for identifying current contraceptive use within the WWAMI region Practice and Research Network. *Contraception*, 98(6), 476–481.
- Green, L. A. (1999, September 27–28). The history of PBRNs: The establishment of practice-based primary care research networks in the United States. In *Proceedings from the conference convened by the AAFP task force to enhance family practice research*. Leesburg, Virginia.
- Green, L. A., & Hickner, J. (2006). A short history of primary care practice-based research networks: from concept to essential research laboratories. *Journal of the American Board of Family Medicine*, 19, 1–10.
- Green, L. A., Simmons, R. L., Reed, F. M., Warren, P. S., & Morrison, J. D. (1978). A family medicine information system: The beginning of a network for practicing and resident family physicians. *The Journal of Family Practice*, 7, 567.
- Green, L. A., White, L. L., Barry, H. C., Nease, D. E., & Hudson, B. L. (2005). Infrastructure requirements for practice-based research networks. *The Annals of Family Medicine*, *3*, S5–S11.
- Green, L. W. (2008). Making research relevant: If it is an evidencebased practice, where's the practice-based evidence? *Family Practice*, 25, i20–i24.
- Hayes, H., & Burge, S. (2012). Creating a practice-based research network from scratch: Where do I begin? Progress in Community Health Partnerships: Research, Education, and Action, 6, 369–380.
- Hickner, J., & Green, L. A. (2015). Practice-based research networks (PBRNs) in the United States: Growing and still going after all these years. *Journal of American Board of Family Medicine*, 28, 541–545.
- Holkup, P. A., Tripp-Reimer, T., Salois, E. M., & Weinert, C. (2004). Community-based participatory research: An approach to intervention research with a Native American community. *Advances in Nursing Science*, 27, 162.

- Horwitz, S. M., Hurlburt, M. S., Goldhaber-Fiebert, J. D., Palinkas, L. A., Rolls-Reutz, J., Zhang, J., Fisher, E., & Landsverk, J. (2014). Exploration and adoption of evidence-based practice by US child welfare agencies. *Children and Youth Services Review*, 39, 147–152.
- Institute of Medicine. (2001). Crossing the quality chasm: A new health system for the 21st century. National Academy of Science.
- Israel, B. A., Lichtenstein, R., Lantz, P., McGranaghan, R., Allen, A., Guzman, J. R., Softley, D., & Maciak, B. (2001). The Detroit community-academic urban research center: Development, implementation, and evaluation. *Journal of Public Health Management* and Practice: JPHMP, 7(5), 1–19.
- Jansson, B. (2019). *Becoming an effective policy advocate*. Brooks/ Cole.
- Kelly, E. L., Davis, L., & Brekke, J. (2015). PBRN findings: Integrated care for individuals with serious mental illnesses. *Psychiatric Services*, 66, 1253.
- Kelly, E. L., Davis, L., Mendon, S., Kiger, H., Murch, L., Giambone, L., Pancake, L., & Brekke, J. (2018). Provider and consumer perspectives on the usefulness of community mental health services delivered in usual care settings: Implications for consumer driven care. *Psychological Services*, 16, 572–584.
- Kelly, E. L., Kiger, H., Gaba, R., Pancake, L., Pilon, D., Murch, L., Knox, L., Meyer, M., & Brekke, J. S. (2015). The recoveryoriented care collaborative: A practice-based research network to improve care for people with serious mental illnesses. *Psychiatric Services*, 66, 1132–1134.
- Kim, H., & Stoner, M. (2008). Burnout and turnover intention among social workers: Effects of role stress, job autonomy and social support. *Administration in Social Work*, 32, 5–25.
- Larkin, H., Henwood, B., Fogel, S. J., Aykanian, A., Briar-Lawson, K., Donaldson, L. P., Herman, D., Little, S. B., Meyer-Adams, N., Padgett, D. K., Patchner, M. A., & Streeter, C. L. (2016). Responding to the grand challenge to end homelessness: The national homelessness social work initiative. *Families in Society*, 97, 153–159. https://doi.org/10.1606/1044-3894.2016.97.31
- Lizaola, E., Schraiber, R., Braslow, J., Kataoka, S., Springgate, B. F., Wells, K. B., & Jones, L. (2011). The partnered research center for quality care: Developing infrastructure to support communitypartnered participatory research in mental health. *Ethnicity & Disease*, 21, 58–70.
- Lloyd, C., King, R., & Chenoweth, L. (2002). Social work, stress and burnout: A review. *Journal of Mental Health*, 11, 255–265.
- Manderscheid, R. (2006). Some thoughts on the relationships between evidence based practices, practice based evidence, outcomes, and performance measures. *Administration and Policy in Mental Health and Mental Health Services Research*, 33, 646–647.
- Mays, G. P. (2013). *The public health PBRN program: A summative report*. University of Kentucky.
- Mays, G. P., Hogg, R. A., Castellanos-Cruz, D. M., Hoover, A. G., & Fowler, L. C. (2013). Public health research implementation and translation: Evidence from practice-based research networks. *American Journal of Preventive Medicine*, 45(6), 752–762.
- McMillen, J. C., Lenze, S. L., Hawley, K. M., & Osborne, V. A. (2009). Revisiting practice-based research networks as a platform for mental health services research. *Administration and Policy in*

Mental Health and Mental Health Services Research, 36(5), 308–321.

- McNeece, C. A., & Thyer, B. A. (2004). Evidence-based practice and social work. *Journal of Evidence-Based Social Work*, 1(1), 7–25.
- Miranda, J., McGuire, T. G., Williams, D. R., & Wang, P. (2008). Mental health in the context of health disparities. *American Journal of Psychiatry*, 165(9), 1102–1108.
- Morris, Z. S., Wooding, S., & Grant, J. (2011). The answer is 17 years, what is the question: Understanding time lags in translational research. *Journal of the Royal Society of Medicine*, 104, 510–520.
- Palinkas, L. A. (2019). Rigor and relevance in social work science. In J. Brekke & J. Anastas (Eds.), *Shaping a science of social work* (pp. 3–21). Oxford University Press.
- Pinto, R. M., Spector, A. Y., & Rahman, R. (2019). Nurturing practitioner-researcher partnerships to improve adoption and delivery of research-based social and public health services worldwide. *International Journal of Environmental Research and Public Health*, 16, 862.
- Powell, B. J., Proctor, E. K., & Glass, J. (2014). A systematic review of strategies for implementing empirically supported mental health interventions. *Research on Social Work Practice*, 24, 192–212.
- Reid, W. J. (2001). The role of science in social work: The perennial debate. *Journal of Social Work*, 1, 273–293.
- Riley, W. T., Glasgow, R. E., Etheredge, L., & Abernethy, A. P. (2013). Rapid, responsive, relevant (R3) research: A call for a rapid learning health research enterprise. *Clinical and Translational Medicine*, 2, 10.
- Rosen, A., & Proctor, E. K. (2003). Developing practice guidelines for social work intervention: Issues, methods, and research agenda. Columbia University Press.
- Rosiek, J. L., & Pratt, S. (2013). Jane Addams as a resource for developing a reflexively realist social science practice. *Qualitative Inquiry*, 19, 578–588.
- Sellers, R. V., Salazar, R., Martinez, C., Gelfond, S. D., Deuter, M., Hayes, H. G., Ketchum, N., & Pollock, B. H. (2012). Difficult encounters with psychiatric patients: A south Texas psychiatry practice-based research network (PBRN) study. *Journal of the American Board of Family Medicine*, 25, 669–675.
- Sommerfeld, P. (2014). Social work as an action science: A perspective from Europe. Research on Social Work Practice, 24, 586–600.
- Stone, S., & Floersch, J. (2019). The science of social work roundtables. In J. Brekke & J. Anastas (Eds.), *Shaping a science of social work* (pp. 3–21). Oxford University Press.
- Su, D., Irwin, J. A., Fisher, C., Ramos, A., Kelley, M., Mendoza, D. A. R., & Coleman, J. D. (2016). Mental health disparities within the LGBT population: A comparison between transgender and nontransgender individuals. *Transgender Health*, 1(1), 12–20.
- Uehara, E. S., Barth, R. P., Coffey, D., Padilla, Y., & McClain, A. (2017). An introduction to the special section on grand challenges for social work. *Journal of the Society for Social Work and Research*, 8, 75–85.
- Uehara, E. S., Barth, R. P., Olson, S., Catalano, R. F., Hawkins, J. D., Kemp, S., Nurius, P. S., Padgett, D. K., & Sherraden, M. (2014). *Identifying and tackling grand challenges for social work*. American Academy of Social Work and Social Welfare. https://grand challengesforsocialwork.org/wp-content/uploads/2015/04/

FINAL-Identifying-and-Tackling-GCSW-4-2-2015-formatted-final.pdf

- Uehara, E. S., Flynn, M., Fong, R., Brekke, J., Barth, R. P., Coulton, C., Davis, K., DiNitto, D., Hawkins, J. D., Lubben, J., Manderscheid, R., Padilla, Y., Sherraden, M., & Walters, K. (2013). Grand challenges for social work. *Journal of the Society for Social Work* and Research, 4, 165–170.
- U.S. Department of Health and Human Services. (2019). Practice based research networks, research in every day practice, registry map. Retrieved March 20, 2019, from https://pbrn.ahrq.gov/pbrn-registry/pbrn-registry-map
- Wallerstein, N., & Duran, B. (2010). Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity. *American Journal of Public Health*, 100(S1), S40–S46.
- Westfall, J. M., Mold, J., & Fagnan, L. (2007). Practice-based research—"Blue highways" on the NIH roadmap. *JAMA*, 297, 403–406.
- Westfall, J. M., Roper, R., Gaglioti, A., & Nease, D. E., Jr. (2019). Practice-based research networks: Strategic opportunities to advance implementation research for health equity. *Ethnicity & Disease*, 29, 113–118.