

AGENCY-UNIVERSITY PARTNERSHIP FOR EVIDENCE-BASED PRACTICE IN SOCIAL WORK

Jennifer L. Bellamy

University of Chicago

Sarah E. Bledsoe

University of North Carolina at Chapel Hill

Edward J. Mullen

Columbia University

Lin Fang

University of Toronto

Jennifer I. Manuel

New York State Psychiatric Institute

Little is known about evidence-based practice (EBP) in social service agencies beyond studies of researcher, practitioner, and educator opinions. The Bringing Evidence for Social Work Training (BEST) Project involved 16 participants from 3 social service agencies. The experiential training, delivered by 2 doctoral students, focused on a team-identified practice issue and followed the EBP process of motivation, question formulation, search, evaluation, and application planning. Posttraining focus group data were analyzed. Results suggest that university researchers who based in schools of social work can successfully collaborate with agencies to support the process of identifying, evaluating, and discussing the application of research evidence in practice. University-agency training partnerships should be considered as 1 of many potential strategies for advancing EBP in social work.

EVIDENCE-BASED PRACTICE (EBP) as a professional model is a frequently discussed and debated topic in social work education. Beyond studies based on descriptions of researcher, practitioner, and educator opinions of EBP, relatively little is known about the implementation of EBP in social service agencies. This article describes data from the Bringing Evidence for Social Work Training (BEST) Pilot Project, in which three New York

City social service agencies engaged in partnership with university-based researchers. Specifically, the BEST Project used a team format to explore how agency-university collaborations might promote and support the use of research evidence in practice. The BEST Project design included 10 teaching modules designed to increase the agency teams' knowledge of EBP, improve research skills related to EBP, foster positive attitudes toward EBP, and

identify factors that promote use of EBP in social service agencies. This article describes common themes across each of the three partnerships related to knowledge and attitudes about EBP, current and future use of EBP in practice, barriers, solutions, and promoters identified by team members through participation in the BEST Project.

Background and Significance

The conceptual framework of EBP used by the BEST Project defined *EBP* as a professional model of practice. This definition, originally proposed for use in medicine, is frequently described as a series of steps encompassing the adoption and implementation of a collection of values and activities (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996; Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000). Gibbs (2003) applied this model to human service settings by outlining seven steps involved in EBP: motivation, question development, search for relevant research, research appraisal, application, evaluation, and dissemination. These steps are designed to engage practitioners in a continual process of evidence identification, evaluation, and application in partnership with clients to improve practice outcomes. Various frameworks, ethics, models, toolkits, and guidelines illustrating how the medical EBP approach might be amended and adjusted for application in social service contexts have been developed and described by a number of researchers (Anderson, Cosby, Swan, Moore, & Broekhoven, 1999; Gibbs & Gambrill, 2002; Rosen, Proctor, Morrow-Howell, Auslander, & Staudt, 1993). However, a recent review of the

literature suggests that none of these models or practice guidelines has found wide acceptance or been adopted on a large scale in social work agencies (Bellamy, Bledsoe, & Traube, 2006).

Despite a growing interest in EBP as a professional model of practice for social work, few studies have systematically examined strategies to facilitate the adoption of EBP (Addis, 2002; Gira, Kessler, & Poertner, 2004). As Kirk and Reid (2002) noted, although social work researchers have identified useful practice knowledge, the processes by which new knowledge can be applied throughout the profession remain largely unexplored in research. Indeed, much of the literature regarding EBP in social work has focused on the numerous challenges to widespread incorporation of EBP in practice (Bellamy, Bledsoe, & Traube, 2006; Mullen, Shlonsky, Bledsoe, & Bellamy, 2005).

Efforts to increase EBP can be informed by related studies of implementation and innovation research. Two groups of researchers (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004) have drawn from a range of disciplines to provide thorough reviews of the recent findings of implementation research and theoretical development. Although it is a relatively new discipline, implementation research has emerged across diverse fields and has identified mechanisms, such as interorganizational networking, that may support the use of EBP as a model of professional practice (Johnson & Austin, 2006; Mullen, Bledsoe, & Bellamy, in press). However, interorganizational networking has not been widely ap-

plied to the diffusion of innovations (Greenhalgh et al., 2004). Social work agencies and schools of social work often form organizational networks to provide field-learning opportunities for students and venues for research on practice. These partnerships provide a natural opportunity and rarely studied vehicle to facilitate EBP in practice settings.

The BEST Project was a pilot demonstration designed to address barriers to EBP implementation identified in prior research, test the feasibility and acceptability of a university-agency partnership with social work agencies focused on EBP, and collect exploratory data regarding the experience of that partnership from the agency perspective. Based on a review of the literature and interviews with expert researchers (Bellamy, Bledsoe, & Traube, 2006), four significant categories of barriers to the implementation of EBP were identified: (1) lack of knowledge about how to best access, critically evaluate, and translate evidence for use with clients; (2) lack of fit of currently available evidence with practice needs and populations; (3) suspicion and distrust for evidence and EBP based on objections related to political, ethical, or control issues; and (4) lack of resources for the training, materials, and staff time necessary to research the evidence. The BEST Project sought to address these barriers by providing training to agency-based teams that was designed to increase acceptance and knowledge of EBP. Concurrently, the BEST Project established partnerships with agencies to both troubleshoot anticipated barriers and identify potential promoters of EBP. This article presents findings from data collected during focus group discussions con-

ducted with agency staff following the completion of the university-agency EBP training. Other data and findings from the BEST Project have been published and presented elsewhere (Bellamy, Bledsoe, & Traube, 2006; Mullen, Bellamy, & Bledsoe, 2005; Mullen, Bellamy, Bledsoe, & Jean Francois, 2006; Mullen, Bledsoe, & Bellamy, 2008).

Method

Sample

Given the exploratory nature of this study and the emphasis on partnership, the researchers who were based at a school of social work (hereafter, the research team) collaborated with a convenience sample of three New York City agencies that were willing to collaborate with researchers on an EBP-focused project. After initial meetings with senior agency administrators to secure their agreement to participate in the project, these administrators selected a team of 4 to 6 project participants (hereafter, the agency team). These three teams included 16 agency participants. Table 1 presents the breakdown of participants by their agency affiliation and role.

All but 1 agency team member, who left a staff position before the project's end, were included in pretraining and posttraining focus group discussions. Participants were not compensated for their participation; however, study activities occurred during working hours. The university institutional review board approved the project for human participant research. The research team approached four agencies as potential partners, and three agencies fully engaged in the project and participated in the EBP training. The fourth agency

expressed interest in participating and met with the university team; however, this agency chose not to proceed because external policy changes prompted unforeseen restructuring in the agency. No data from this agency are included in this article.

Intervention

To allow for collaboration, the research team presented a flexible plan to the agencies during initial project meetings. This process started with the chief executive officer at each agency followed by meetings with supervisors and staff who would ultimately compose the agency teams. Including the agencies as contributing partners at the earliest stages of the project was an explicit effort to address suspicions and distrust of research and researchers identified in previous research (Bellamy, Bledsoe, & Traube, 2006). As a result, agency teams guided and shaped many of the project details. Each agency team individually collaborated with the research team. A senior faculty member led the BEST Project, and doctoral students served as project coordinators, developed resource materials, and engaged directly with the agency teams. The research and agency team members first worked together to select a practice-relevant target problem and developed a plan to

address the problem through a hands-on, EBP training experience.

Training Description

Each agency team participated in a series of trainings delivered by the research team regarding EBP. The research team provided technical assistance and participated in the group process. The training, which was the core of the BEST Project, was based on the model of EBP for social work described by Gibbs (2003). The training consisted of 10 modules (available for download from the Columbia University Willma & Albert Musher Program Web site):

- 1. EBP introduction and overview
- 2. Question selection
- 3. Overview of research evidence
- 4. Search tools
- 5. Search demonstration
- 6. Troubleshooting the search
- 7. Evaluating the evidence
- 8. General findings and observations
- 9. Synthesizing evidence found
- 10. Action plan

These targeted the first four steps of EBP: motivation, question development, search for relevant research, and research appraisal.

TABLE 1. Participants by Agency Affiliation and Role (N=16)

Participant Type	Agency A (n)	Agency B (n)	Agency C (n)
Administrator	2	1	1
Clinical supervisor	4	3	0
Front-line staff	0	0	4
Student	0	0	1

Thus, the teams transformed target problems into researchable questions, and the research team provided technical support for the agency teams' efforts to locate, evaluate, and appraise evidence to seek answers to their respective EBP questions.

Data and Measures

A pretest-posttest design was used, and qualitative data were collected during two rounds of focus groups conducted separately with each of the three agency teams, for a total of six focus group discussions. Descriptive implementation-process notes, recorded by the research team members, were another principal data source. Participants provided demographic data using a self-administered, anonymous questionnaire completed prior to the first training module.

Focus groups were conducted using a semistructured format guided by a protocol of questions and probes developed by the research team based on earlier research (Bellamy, Bledsoe, & Traube, 2006). The initial focus group discussions were designed to collect baseline data. Participants were asked to describe their knowledge of and past experience with EBP, barriers to EBP use in their agency, and EBP-enabling factors (hereafter, promoters) they had experienced or anticipated prior to using EBP in their agency. The second round of focus group discussions occurred 8 to 12 weeks following the training. In these follow-up focus groups, participants were asked about current knowledge and opinions regarding EBP, the use of research in practice, perceptions of barriers and promoting factors they perceived in using EBP, their experience with the training program used in

the study, and their plans for future use of research and EBP.

Data Analysis

Quantitative analysis. Descriptive data including demographic and professional information collected through questionnaires were analyzed using SPSS software (2006). All available data were reported, and each variable reported had no more than one missing data point.

Qualitative analysis. The following strategies were used to improve the reliability and validity of qualitative data: triangulation of data and sources, multiple coders, and member checking. The data were triangulated through multiple forms of data: audio recordings, interviewer notes, and verbatim transcriptions. Data from the focus group discussions were transcribed and then analyzed using NVivo 7.0 (QSR International, 2006) qualitative software. Major themes were developed a priori based on findings of an earlier project phase (see Bellamy, Bledsoe, & Traube, 2006, for description and review of findings) and implemented as tree nodes using qualitative methods described by Krueger and Casey (2000). Focus group transcripts were coded according to each of the major themes. The research team discussed other major themes that emerged during this coding process and when consensus was reached, they were designated as tree nodes and coded accordingly. Coding was reviewed and refined into subtheme categories for each major theme. Two research team members coded the transcripts independently to ensure reliability. Coding classification of the transcripts was cross-reviewed by each coder. Any

ambiguities and coding discrepancies were resolved by reviewing the focus group transcripts and reaching consensus. Member checking was accomplished by presenting the preliminary findings to the agency team members and administrators. Table 2 presents the coding themes and subthemes identified in the qualitative analysis of the focus groups.

**Agency–University Partnership
Description**

Participant agencies differed in terms of their program structure, location, and population served (Table 3). Agency A provides a variety of child and family-oriented programs in a historically Latino immigrant neighborhood.

TABLE 2. Coding Themes and Subthemes

Theme	Subtheme
EBP Knowledge	Definition of EBP New knowledge and skills
Attitudes about EBP	Positive Mixed or neutral Negative (suspicion)
Current and Future EBP Use in Practice	Current use: Changes in making practice decisions and Current use: EBP skills and resources (from training) used Individual/agency likelihood of using EBP in the future
Barriers	Agency-level factors/culture Suspicion (see negative attitudes) Lack of fit/misuse Lack of knowledge, skills, training, supervision/monitoring Lack of resources (time, access, funding)
Solutions and Promoters	Broad organization factors/culture Resources (time, access, funding) Knowledge, skills, training, supervision/monitoring Positive attitude More research New trend/vogue University-level collaboration/partnership External influences (information/network sharing) Support from other agencies

Agency B is a large, multisite organization serving diverse populations and needs across the New York City metropolitan area. Administrators at this agency selected a single program focus for their BEST Project participation: a multisite housing program primarily serving persons with both severe and persistent mental illness and chemical abuse, alcohol abuse, or addiction. The third participating agency, Agency C, delivers health care services to primarily Asian communities in the context of a community health center. At Agency C, the project team worked within the mental health services unit of the health center.

Sample Characteristics

The sample characteristics of the BEST project participants are presented in Table 4. The mean age of the participants was approximately 35 years and the majority was female. Most participants identified themselves as either Asian or Caucasian. Over half of participants reported an annual salary between \$35,000 and \$40,000. Participants represented a range of educational backgrounds with the largest percentage holding a master's degree. Most participants reported that the focus of their

degree was social work, and half of the participants held a social work license. Participants had worked an average of more than 5 years at their agencies, and all but one participant, who was a student, reported working full-time.

Results

EBP Knowledge

Definition of EBP. Comparison of participant responses at baseline to the responses at follow up showed a general pattern of positive changes in participant perceptions of EBP. At baseline, definitions of EBP were relatively vague in nature, with both staff and administrators describing EBP in terms of individual elements, including methodology, results and outcomes, particular models or tools, and standards of practice that they heard about from various sources such as conferences or students. Typical participant definitions of EBP included, "It is associated with data collection and results" and "Something that's been already investigated, that's proven, that works—a standard for us to go by in our own practice." In contrast to these imprecise definitions of EBP, the definitions provided in the follow-up

TABLE 3. Brief Agency Overview

Variable	Agency A	Agency B	Agency C
Structure	Family Services	Multiprogram, multisite	Community health center
Chosen program focus	Child and family	Housing and mental health	Mental health
Primary population	Primarily Latino immigrant	MICA ^a population	Primarily Chinese American immigrant community

^aMICA=Mental illness and chemical addiction.

focus groups were more specific and related to process, incorporating clinical experience, keeping an open mind, and disseminating knowledge. Typical participant comments from the follow-up focus groups included these definitions of EBP:

It's like a process, not only based on research findings, but also part of your clinical experience of what works and doesn't work and it's ongoing.
(Agency C participant)

[EBP] is trying to keeping an open mind to testing empirically. (Agency C participant)

[EBP is about] investigating certain techniques and finding evidence to back it up in research, [and efforts to] standardize it where other people could replicate [those techniques].
(Agency B participant)

The language used by participants in the follow-up focus groups generally reflected the language and concepts discussed throughout the EBP training.

Overall, participants demonstrated a clear understanding that the current flow of knowledge from research to practice is ineffective and inefficient, and this lack of communication was a problem. Overall, most par-

TABLE 4. Sample Demographic and Professional Characteristics (N=16)

Variable	Mean or <i>n</i>	Standard Deviation	Percentage
Age	34.9	9.1	
Female	14	—	87.5
Race			
Asian	6	—	37.5
Black/African American	3	—	18.8
Caucasian/White	6	—	37.5
Hispanic/Latino	1	—	6.3
Salary			
\$35K or less	2	—	12.5
\$35K–\$50K	9	—	56.3
\$50K or more	4	—	25.0
Education			
Bachelor's	6	—	37.5
Master's	8	—	50.0
PhD	2	—	12.5
Degree focus			
Social work	13	—	81.3
Other	3	—	18.7
Social work license	8	—	50.0
Years worked	6.3	7.5	
Hours worked per week	36.17	5.8	

ticipants expressed an interest and willingness to make efforts to address that issue. The words of 2 participants summarized the opinions expressed by many:

There's a gap between what's been done on the research level and what's being done everyday on the front lines. It would be great to break that and it's hard to do. I know we came up with some ideas about trying to implement some of this research knowledge in more day-to-day functions here. I think it would be interesting and helpful to do that. (Agency A participant)

I think it's exciting to learn new techniques and new interventions, and I think it's important to know if those interventions that you do use are successful or not and just to keep up to date with the current research. (Agency C participant)

Some participants linked their positive perceptions of EBP directly to their experience with the BEST Project training. One agency team member reflected on the results of her hands-on search in the training by saying, "I'm really excited about the assessment and...the [evidence] we found. I think [the identified assessment instrument] is a good thing to try out" (Agency B participant).

New knowledge and skills. Participants spoke positively about the skills learned in the training, but many comments centered on how the participants felt that they would be able to apply some, but not all, of the steps

they learned. Most participants commented that learning newer, more efficient skills for conducting searches was among the most helpful aspects of the training. One participant remarked on the future value of these search skills:

The searching stuff, with the Web sites you offered. We could get on the computer and [search] and see what we come up with. I think if people could read stuff together, almost like a book review, [and] talk about it that would feel almost in sync with how we approach issues and challenges in our department. (Agency A participant)

Furthermore, participant comments indicated that the hands-on nature of the training was useful to participants, particularly the integration of these skills and approaches into the existing culture and structure of the agency. Another practitioner noted how the training made identifying and using evidence seem practical and effective and how it was "streamlining" her approach to researching evidence.

Despite the knowledge, skills, and increase in positive attitudes described by participants, as well as the support and guidance of the research team, some steps of the EBP process remained challenging. Nearly all of the participants commented on their struggle to understand the sophisticated aspects of research, whether that meant interpreting research methodology or calculating comparison statistics. One participant said, "To me, the evaluations of the research, it's like really complicated, and the statistical stuff, to me, I start

to zone out" (Agency A participant). Another participant commented on the difficulty of evaluating the technical aspects of the research:

Unless you've really looked at a lot of research—like I still don't know which study's data is really that clean or the way they went about it, or if the methods are really that good; and I think having a [statistic] helps you decide that. But, I can't see myself going through 15 articles and calculating [the effect size]. (Agency C participant)

Even though participants said they found the EBP process intimidating, a few participants expressed a desire to learn more regarding the evidence that supports practice mandates and guidelines that are required by funding and regulatory organizations like the state office of mental health. One participant described this as, "being able to really look at it [practice guidelines] through research and really feel, based on what we were shown, that [the practice guideline] was valid and appropriate" (Agency A participant). Some participants also wanted to have easier access to reviews of evidence that suggested clinical practice guidelines for clinical practice.

Most participants wanted more training with additional hands-on experience to learn the tools and techniques necessary to use an EBP model of practice in their work. For example, 1 participant said, "I think I would need more time with [training]. You know, like how to pick [information] out of the article. That's something I would really have to study" (Agency B participant). Participants

said judging the quality of evidence was a "very challenging" task. In general, these practitioners indicated a lack of confidence or said their EBP skills were insufficient to use successfully all of the EBP techniques included in the training modules.

Attitudes About EBP

The agency teams' understanding of EBP changed not only in terms of a definition but in terms of acceptance of EBP as a professional model of practice. In the second round of focus groups, participants described feeling more positive toward the concept of EBP and more motivated to use EBP in their agency. One participant said, "In the beginning my view was like, [EBP] is a dirty word" (Agency A participant). After participating in the BEST Project EBP training, this same participant described EBP as "intuitive" and "thoughtful." Similarly, some agency team members reported that their participation in the training had given them a "fuller view" of EBP and a clearer understanding of this model of practice. This expanded understanding of the EBP process seemed to increase acceptance of the EBP model. The participants' identification of the benefits associated with engaging in EBP, such as the potential to improve services and increase accountability to clients, was related to their changes in attitude.

Positive changes in attitudes toward EBP also appeared to stem from the clarification of EBP as a model that includes client preferences and clinical expertise. In particular, participants seemed to appreciate dispelling their misconceptions about EBP with the affirmation that clinical knowledge and expertise are essential components of EBP. One participant

said, "It feels much more tailored to where we're coming from and what our interests and values are, and not like there's going to put [constraints] onto our practice" (Agency A participant). Another participant remarked on how the EBP training had changed his/her perception of EBP from an imposed practice to a model that could be tailored to the specifics needs of the agency:

It's helping us understand how to find the areas of research that are missing and figure out places where other contributions need to be made; rather than feeling like this is the cookie cutter that we have to go with and that's the end of the story. (Agency A participant)

The importance of flexibility and contextual differences across agencies and programs were consistently mentioned in the focus groups.

In addition, participants described how engaging in EBP was affirming and could build confidence in their work. A few participants noted that their agencies had current practices in use that they felt appropriate and effective, but they had not identified evidence to support these opinions. One participant noted that EBP would be helpful to agencies in this type of situation and said of reading about research findings, "I think we would learn new things and we'd be [affirming practices] that we had a good hunch about" (Agency A participant). This participant also reported a willingness to modify current practices if research evidence did not support those approaches. "We could jettison them because we [would] feel confident that there

isn't much reason to believe that such and such [intervention] would be helpful." EBP was described as a way to improve practice outcomes, develop professional skills such as critical thinking, be responsible to clients, and be more efficient in staying up to date on current research knowledge.

However, after participating in the training, a few participants expressed negative feelings or concerns regarding the basic concept of EBP. Comments offered by 1 practitioner indicated that this participant still associated EBP with a "watered down" attempt to incorporate a "medical model" into social work in a "very unhelpful" way (Agency A participant). Another participant at the same agency said that theory did not play a large enough role in EBP. Although other participants voiced concerns about implementing EBP, these concerns were regarding practical barriers to the application of EBP, rather than any fundamentally negative attitudes or perceptions of the concept as an approach to practice.

Current and Future Use of EBP in Practice

The steps of the EBP process included in the BEST Project training were applied by participants to their practice, but because of the challenges and complexities in practice, the EBP steps were only partially applied and fidelity to the full EBP model of practice was not maintained. Participants described doing "a little bit of research" and "some of the steps" or applying certain tools that they found particularly helpful "here and there." Although many of the participants described plans to use their new EBP skills in the future, most

participants reported that they had not used EBP tools and approaches outside of the training sessions. Practitioners described their anticipated use of EBP training tools as including simple approaches and adaptations to fit the unique needs of their agency's resources, culture, and context. They described their planned initiation of EBP as proceeding on a smaller scale than the EBP model presented in the training. One participant said, "You might find something useful, but given the resources and the reality of what you have, you may not be able to totally use the entire thing" (Agency B participant). Another participant who was both hopeful and cautious said, "If it's something that we care about and talk about and try to model to a certain extent, I think we can definitely make progress" (Agency A participant). A piecemeal approach to EBP was apparent in comments participants shared regarding both current use and future plans to use an EBP model of practice. For example, a consistent strategy across agencies was to incorporate an EBP model into the current agency context by focusing existing staff training or supervision time on EBP related activities, rather than asking staff to add to their current workload. This approach was largely in response to a common barrier, lack of time, identified by all three agencies. Participants described incorporating EBP practices into "daily practice," either by using flexible resources, such as asking students in field placement rotations to search for evidence, or by using existing mechanisms, such as journal clubs and staff meetings, supervision, or in-house continuing education programs, to secure staff time to focus on EBP.

In addition, participants mentioned needing help moving from the research aspects of EBP to the implementation of interventions, techniques, or tools identified through their search for evidence. One team member said,

If we did decide that there were some approaches or interventions that were useful, there is still a whole piece missing, and that's how we would practice and how we would actually implement—with whom, why, when—and that's not in the literature, that's where the creative part is (Agency A participant).

The application of knowledge was something that participants described as both necessary and challenging. Another participant said,

I think it's worthwhile. It just seems that there are always time constraints in actually implementing it. Also [it has to be] a priority, or you can't just go along with what you know, and snatch stuff, and try to incorporate [EBP] with what you're doing (Agency B participant).

Another participant described needing help to find ongoing support for training, supervising, and evaluating any new practices implemented in their agency (Agency A participant).

Participants also noted the need to alter the approaches described in the literature based on the needs and culture of the populations being served. One participant's comments summarized the thoughts of many:

In terms of the fit, so it almost would require another piece of training or knowledge around how do you judge evidence that's been produced out of a completely different population...we had difficulty finding research dedicated to the population that looks like [our clients] (Agency C participant).

Participants were particularly troubled by the lack of research dedicated to ethnic or racial minority and immigrant groups who constituted a large percentage of the client base of the three agencies. One participant reacted to the narrow scope of research evidence that she uncovered throughout the training: "This is the closest to our [practice] question we could get? With all White samples, like, in Minnesota?" (Agency A participant). She voiced a concern shared by many of the participants that research samples were not similar to the clients served by the participating agencies. Although most participants were skeptical about their ability to fully incorporate EBP into their work and many reported feeling overwhelmed by barriers, most voiced a desire to keep trying.

Barriers

Participants in the follow-up focus groups identified numerous barriers to adopting EBP, including (a) lack of resources (e.g., time, access to research, and funding), (b) lack of knowledge (e.g., research skills, training, and supervision for staff), (c) suspicion of the EBP concept (i.e., it is a medical model that does not include theory), and (d) lack of fit (i.e., available evidence is either irrelevant or insuf-

ficient). These barriers were consistent with those identified in the baseline focus groups. In addition, follow-up focus group discussions reaffirmed the identification of practitioner experience as an EBP barrier. At baseline, participants described how EBP was a useful approach for students or new practitioners but not necessarily helpful for seasoned practitioners. Similarly, comments shared at follow up showed that participants' perceptions of EBP were unchanged in this respect, as reflected in the comments of 1 participant, who said,

It depends on where you're coming from. If somebody is coming from a way of practice of doing something for a long period of time, you're going to have a harder time changing them. While otherwise, you won't have the resistance. (Agency B participant).

Some participants also noted that accreditation, government, or other monitoring bodies handed down EBPs or related directives without consideration for real-world practice issues or the need for support when implementing practice innovations. Participants said they wanted a practice model that offered flexibility and a way to make adjustments if the recommended approach was not working in practice. It is worth noting that participants described conflicting pressures that either advocated for EBP or discouraged the use of the EBP model. In part, this conflict appeared to stem from a break in communication between researchers and front-line agency practitioners. Theoretically, EBP includes a constant feedback loop

from research to practice and back; however, participants reported that they did not feel that the infrastructure for this kind of communication was in place to connect their practical experience back to researchers, or to provide them with ongoing support by researchers.

Solutions and Promoters

Agency teams identified a number of promoters for EBP as a model of professional practice. Many of the factors promoting EBP mirrored the barriers to EBP implementation previously mentioned and included funding, recruitment, and retention of qualified staff, time, access to Internet resources, and an increased research base. Team members identified both agency culture and structure as targets for change in promoting EBP. Participants further identified the explicit commitment of time and resources toward EBP-related activities as one of the important promoters related to the culture of an agency. One participant remarked,

I think you realize [EBP is] pretty time consuming, and I don't know if the agency is really pushing that way, but even if they did, there is going to be a clash between the time we're going to spend on this versus the time that you're supposed to be practicing clinically. (Agency B participant)

The university-agency partnership provided this type of protected time dedicated to EBP-related activities in the context of planned group work and training sessions. In addition, agency and staff acceptance of the EBP concept, described as "buy-in," were also

important promoters of EBP. For example, participants representing one agency where few front-line staff had training at the college level expressed the opinion that better compensated and more skilled professional staff would be essential to the success of EBP within their agency.

Participants clearly saw the group context as key to implementing EBP. When asked how they anticipated continuing EBP at their agency, 1 participant said, "Probably as a group process. We probably would divide it into different tasks, smaller tasks, among people" (Agency C participant). A participant from a different agency said, "What we would have to do is group process. Everybody would share the things that are working [best] and everyone studies together" (Agency B participant). Whereas some participants viewed breaking down EBP responsibilities into manageable steps as a key to moving forward, others spoke about larger organizational level changes. For example, 1 team member said that EBP should be, "Not really a case-by-case thing, but how we want to approach things" (Agency B participant). In addition, participants described the need for an agency-wide assessment of needs and resources to ensure that EBP programs are feasible.

Participants also described roles for promoting EBP that could be played by professional entities such as licensure boards, accreditation committees, and funding bodies. The role for these entities was described most frequently as providing access to the research literature, facilitating service quality by strengthening state licensure requirements, and providing continuing education programs on EBP. One participant said, "There's

no requirement for ongoing skill development like there is in the medical field. You don't have to receive continuing social work education hours to maintain your license" (Agency A participant; at the time the BEST Project was conducted, New York state did not require continuing education to maintain a social work license.)

Furthermore, participants addressed the importance of combining clinical and research knowledge to implement EBP. This convergence was described as both ongoing support, such as EBP skills training for supervisors, and technical assistance delivered from an outside source. Several participants expressed an interest in continuing the agency-university partnership as a way of meeting the need for support and assistance. One participant stated,

I think if the universities could see themselves as having an ongoing role not just graduating people out brand new but having a role maintaining workers while they're in their work, and helping them find these kinds of resources or hone their skills; to have an [university] available for that would be really nice. We don't generally have someone like you [the research team] or anyone to call up and say, "We really wanted to get an article on x or y."...or "What do you think about the key words or where would you start?" (Agency A participant)

Moreover, participants recognized their struggles with evaluating and implementing research evidence, and wanted help with

engaging in and monitoring these aspects of the EBP process.

Participants also recognized that limited access to research resources was a barrier to implementing EBP in their agencies. Participants felt that other professions do a better job of keeping graduates connected to research-evidence resources (e.g., the medical profession) and might serve as a model for social work. Participants described ideas about university-agency bridges such as library privileges for alumni, access to current course syllabi and literature reviews produced in graduate coursework. The comment of 1 participant summarized the opinion shared by many: "I think school has a role...to provide alum with access [to evidence]. You look at medical school, and all MDs have access to libraries at universities" (Agency C participant). In addition, several participants noted a potential role for students as bridges between their universities and the agencies. One participant related her agency's plan to move toward EBP:

Next year, we are hoping that our graduate students will buy into our new requirement, which is that for each of our topics that we address in our case-work meeting, they will provide literature from a lit review source. . . . With that process in place, hopefully we will start to inform some of our decisions about what we do in clinical settings and with clients from the articles we read. (Agency A participant)

Many participants noted that students had greater access to research resources, such as

university subscriptions to journals, which were generally unavailable to agencies. In addition, participants observed that students had more experience and training in how to search for evidence as well as how to evaluate evidence. One participant stated, "Most of us think that once we are out of school, we just put this [research] behind, so the link for us would be our students" (Agency A participant). However, participants also acknowledged the limitations of students. A different participant at the same agency said, "The students can only take us so far. This is about our practice and students are visitors." Another participant said better coordination between the classroom research experience and the field experience would benefit both agencies and students.

The final promoter of EBP identified by participants was novelty or innovation. Nearly all participants said that they thought of EBP as a cutting-edge approach to practice, and, therefore, desirable. In addition, the perception of EBP as an innovative approach to practice also appeared to be related to pressure from external forces on agencies to adopt EBP. Most participants in the follow-up focus groups expressed the opinion that agencies that are under pressure to do something "new and improved" or demonstrate improvement in service delivery might find the "trend" or "vogue" associated with EBP alluring.

Discussion

Results from this study suggest that EBP training and partnership with researchers at schools of social work can be effective for motivating social work practitioners to adopt the EBP model but are not sufficient to sup-

port the implementation of EBP. An objective of the BEST Project was to explore if such an intervention could increase practitioner motivation to use research evidence and promote increased use of empirical evidence in practice. Although the National Association of Social Workers (NASW) *Code of Ethics* (1996) states that "social workers should critically examine and keep current with emerging knowledge" and "fully use evaluation and research evidence in their professional practice," this professional commitment is not easily translated into the complex environment of social service agency practice. Studies have consistently indicated that social workers infrequently draw on research to inform practice and often prefer sources other than research knowledge to inform their practice (see Gibbs & Gambrill, 2002; Kirk & Rosenblatt, 1981; Mullen & Bacon, 2004; Rosen, 1994).

Future work should carefully consider the important first step of enhancing motivation. If social workers do not accept and "buy-in" to the fundamental principles, values, and processes of EBP, it is difficult, if not impossible, to advance EBP as a professional model of practice. A critical first step in promoting acceptance of the EBP model is to address and clarify the misconceptions of EBP and to demonstrate its usefulness for community agencies. Consistent with Gibbs' (2003) description of EBP, we found that motivating social workers to use EBP is only the beginning of the process. Engaging in EBP requires skill, resources, and commitment of time from social work organizations and social work practitioners, most of whom are busy delivering, managing, securing funding for, and

tracking services to clients. Even when team participants expressly protected their time for the purposes of engaging in EBP over the course of this project, scheduling was difficult, interruptions were common, and competing demands left little time for EBP-related activities outside of the project.

If the successful application of EBP is to be achieved, the profession will have to commit scarce resources—including time and money—toward the advancement of and infrastructure for EBP-related activities such as (a) seeking out and evaluating the fit and quality of emerging evidence, (b) securing training and resources necessary to implement identified practices, and (c) continual unbiased reassessment of the quality, fidelity, and currency of agency practice. Consuming and applying research are challenging. Participants in the current study expressed a need for ongoing assistance with these activities and felt that they did not have the skills or training to engage fully in the EBP process without support. Furthermore, influences beyond the control of social service agencies and universities, such as funding and policy mandates, could influence the adoption and implementation of EBP over time. Participants in the current study felt that they received mixed messages about EBP from external sources and did not have the support and infrastructure they needed to apply research in practice.

Given the complexity of these tasks, many stakeholders in the profession, including schools of social work, must support social service agencies in this work. A university-agency partnership can offer a venue to improve practitioners' attitudes toward,

knowledge about, and willingness to use EBP; however, these improvements alone are insufficient to produce substantial changes in service delivery. Other resources at schools of social work, which were not used in the current project or were used only to a limited degree, including libraries, information technology departments, continuing education programs, and faculty experts, could be used to support the advancement of EBP. The social work profession must adopt a multilevel, multimodal approach to support the widespread acceptance and use of EBP as a model of practice (Proctor, 2004). In the absence of efforts to support EBP as a professional model of practice in the field, students and newly graduated social workers will likely continue experiencing a disconnect between classroom-based learning and practice in the field.

The BEST Project focus groups identified some potential solutions toward addressing some of the barriers described here and elsewhere (Bellamy, Bledsoe, & Traube, 2006). The university-agency partnership appeared not only to be feasible and acceptable but desirable to participant agencies. Furthermore, there is some evidence suggesting that innovations, such as EBP, are more likely to be adopted if the perspectives of potential administrators—users are engaged at the earliest developmental stages (Gufstason et al., 2003). Our experience in the BEST demonstration pilot project supports this finding. The collaborative partnership of the BEST Project was an explicitly planned and executed component intended to address anticipated barriers and challenges, including distrust of research, researchers, and research knowledge through relationship building. Collaboration

supports the continuous communication feedback loop inherent to EBP, which benefits both research and practice communities. Participants in the BEST Project stated that they needed technical support and expertise, especially the research knowledge that schools of social work can supply, to continue their efforts to incorporate EBP. Likewise, the research team gained access to a "natural lab" for EBP-related research at each agency.

Another key finding was the importance of teams. Teams have proven a successful strategy in contexts involving the implementation of a complex technology (e.g., Edmondson, Bohmer, & Pisano, 2001). Learning the EBP process can be intimidating to social workers attracted to the profession for its person-centered, as opposed to research-centered, focus. Working as a team diffused this anxiety and allowed team members to contribute to the effort according to their individual skills and strengths. The team approach leveraged participants' tendency to seek knowledge from colleagues (Mullen, Bellamy, Bledsoe, & Jean Francois, 2006), and teams could capitalize on individual member talents. Some participants were more experienced in the use of technology and other resources. For example, students and others with university affiliations had access to important fee-based research documents, technology, and support resources. All agency teams discussed ways to use student field placements as a bridge to increasing EBP process at their agency in addition to better connecting the classroom and agency experience using EBP as a framework. However, this single bridge between universities and agencies is tenuous and temporary. Instead, effec-

tive and consistent collaborative efforts performed by professionals who are skilled managers of interorganizational contexts, or boundary spanners, are recommended to encourage greater acceptance of EBP as a model of professional practice (Williams, 2002).

Last, flexibility and fit were important tools. Users are more likely to adopt innovations, such as EBP, if users can modify the approach to suit individual needs (Meyer, Johnson, & Ethington, 1997). Although the BEST Project used a similar basic process in each agency (i.e., moving from administrative negotiations to agency team construction to training implementation), each of the steps in the process played out with flexibility. For example, although each of the agencies received the same training curriculum, they received the modules over different time intervals to suit agency scheduling needs. In addition, even though all agencies involved teams, the research team did not prescribe the staff and administrative membership of each agency team. There is evidence that a key attribute of innovation is the adaptability of this so-called soft periphery, composed of those malleable elements of any technology or intervention (Denis, Herbert, Langley, Lozeau, & Trottier, 2002).

Limitations related to the design of this study constrain the generalizability of the findings presented. As previously described, the study sample was small and of unknown representativeness. Furthermore, this was an exploratory study examining the feasibility of implementing hands-on EBP training in agency practice and identifying barriers and facilitators. Future research is needed to explore more

fully other dimensions of EBP training and support in a broader set of agencies, perhaps using standardized and objective measures of important processes and outcomes.

Conclusion

Efforts to support the widespread implementation of EBP in social service agencies represent one way to address the current research-practice gap. The BEST Project demonstrates an attempt to address the current research-practice gap, particularly around barriers related to practitioners' negative attitudes toward research evidence and lack of understanding or misperceptions about EBP concepts and process. Our findings also suggest that university researchers can collaborate with agencies and form effective partnerships to support the process of identifying, evaluating, and applying research evidence in practice. However, a long-term partnership commitment is necessary to achieve sustainable EBP. Social work practitioners and social service agencies may not be equipped to face the challenges presented by adopting EBP as professional model of practice on their own. Some agencies and practitioners are willing to invest in partnerships with universities and engage in EBP; however, the social work profession must identify and apply multiple multimodal strategies to change practices effectively on a broad scale.

References

- Addis, M. E. (2002). Methods for disseminating research products and increasing evidence-based practice: Promises, obstacles, and future directions. *Clinical Psychology: Science and Practice*, 9, 367-378.
- Anderson, M., Cosby, J., Swan, B., Moore, H., & Broekhoven, M. (1999). The use of research in local health service agencies. *Social Science & Medicine*, 49, 1007-1019.
- Bellamy, J., Bledsoe, S. E., & Traube, D. (2006). The current state of evidence based practice in social work: A review of the literature and qualitative analysis of expert interviews. *Journal of Evidence-Based Social Work*, 3, 23-48.
- Columbia University Willma & Albert Musher Program. (n.d.). *The Evidence Based Policy and Practice Online Resource Center*. Retrieved August, 26 2007, from <http://www.columbia.edu/cu/musher/Website/Website/index.htm>
- Denis, J. L., Herbert, Y., Langley, A., Lozeau, D., & Trottier, L. H. (2002). Explaining diffusion patterns for complex health care innovations. *Health Care Management Review*, 27, 60-73.
- Edmondson, A. C., Bohmer, R. M., & Pisano, G. P. (2001). Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Sciences Quarterly*, 46, 685-716.
- Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa: University of South Florida.
- Gibbs, L. E. (2003). *Evidence-based practice for the helping professions: A practical guide to integrated multimedia*. Pacific Grove, CA: Brooks/Cole.
- Gibbs, L. E., & Gambrill, E. (2002). Evidence-based practice: Counterarguments to objections. *Research on Social Work Practice*, 12, 452-476.

- Gira, E. C., Kessler, M. L., & Poertner, J. (2004). Influencing social workers to use research evidence in practice: Lessons from medicine and the allied health professions. *Research on Social Work Practice, 14*, 68–79.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly, 82*, 581–629.
- Gufstason, D. H., Sinfert, F., Eichler, M., Adams, L., Bisognano, M., & Steudel, H. (2003). Developing and testing a model to predict outcomes of organizational change. *Health Services Research, 38*, 751–776.
- Johnson, M., & Austin, M. J. (2006). Evidence-based practice in the social services: Implications for organizational change. *Administration in Social Work, 30*, 75–104.
- Kirk, S. A., & Reid, W. J. (2002). *Science and social work: A critical appraisal*. New York: Columbia University Press.
- Kirk, S., & Rosenblatt, A. (1981). Research knowledge and orientation among social work students. In S. Briar, H. Weissman, & A. Rubin (Eds.), *Research utilization in social work education* (pp. 29–35). New York: Council on Social Work Education.
- Krueger, R. A., & Casey, M. A. (2000). *Focus groups: A practical guide for applied research* (3rd ed.). Thousand Oaks, CA: Sage.
- Meyer, M., Johnson, D., & Ethington, C. (1997). Contrasting attributes of preventive health innovations. *Journal of Communication, 47*, 112–131.
- Mullen, E. J., & Bacon, W. (2004). A survey of practitioner adoption and implementation of practice guidelines and evidence-based treatments. In A. R. Roberts & K. Yeager (Eds.), *Evidence-based practice manual: Research and outcome measures in health and human services*. New York: Oxford University Press.
- Mullen, E. J., Bellamy, J. L., & Bledsoe, S. E. (2005). Implementing evidence-based social work practice. In P. Sommerfeld (Ed.), *Evidence-based social work—Towards a new professionalism?* (pp. 149–172). Bern, Switzerland: Peter Lang.
- Mullen, E. J., Bellamy, J. L., Bledsoe, S. E., & Jean Francois, J. (2007). Teaching evidence based practice. *Research on Social Work Practice, 17*, 574–582.
- Mullen, E. J., Bledsoe, S. E., & Bellamy, J. L. (2008). Implementing evidence-based social work practice. *Research on Social Work Practice, 18*, 325–338.
- Mullen, E. J., Shlonsky, A., Bledsoe, S. E., & Bellamy, J. L. (2005). From concept to implementation: Challenges facing evidence based social work. *Evidence and Policy: A Journal of Debate, Research, and Practice, 1*(1).
- National Association of Social Workers. (1996). *Code of ethics*. Washington, DC: Author. Retrieved February 1, 2007, from: <http://www.socialworkers.org/pubs/code/code.asp>
- Proctor, E. K. (2004). Leverage points for the implementation of evidence-based practice. *Brief Treatment and Crisis Intervention, 4*, 227–242.
- QSR International. (2006). NVivo qualitative data analysis program, Version 7 [Computer software]. Melbourne, Australia: Author.

- Rosen, A. (1994). Knowledge use in direct practice. *Social Service Review*, 68, 561-577.
- Rosen, A., Proctor, E. K., Morrow-Howell, N., Auslander, W. E., & Staudt, M. (1993). *Systematic planned practice: A tool for planning, implementation, and evaluation*. Unpublished manual.
- Sackett, D. L., Rosenberg, W. M. C., Gray, J. A. M., Haynes, R. B., & Richardson, W. S. (1996). Evidence-based medicine: What it is and what it isn't. *British Medical Journal*, 312, 71-72.
- Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (2000). *Evidence-based medicine: How to practice and teach EBM* (2nd ed.). New York: Churchill Livingstone.
- SPSS, Inc. (2006). SPSS Base 14.0 for Windows [Computer software]. Chicago: Author.
- Walter, I., Nutley, S., & Davies, H. (2005). What works to promote evidence-based practice? A cross-sector review. *Evidence & Policy: A Journal of Research, Debate and Practice*, 1, 335-364.
- Williams, P. (2002). The competent boundary spanner. *Public Administration*, 80, 103-124.

Accepted: 08/07

Jennifer L. Bellamy is an assistant professor at the School of Social Service Administration, University of Chicago; **Sarah E. Bledsoe** is an assistant professor at the School of Social Work, University of North Carolina at Chapel Hill; and **Edward J. Mullen** is the Wilma and Albert Musher Chair professor at the School of Social Work, Columbia University. **Lin Fang** is an assistant professor at the University of Toronto, and **Jennifer I. Manuel** a postdoctoral research associate at the New York State Psychiatric Institute.

This work was supported by the Wilma and Albert Musher Program at the Columbia University School of Social Work and a grant from the National Institute of Mental Health, 5T32MH014623-26.

Address correspondence to Jennifer L. Bellamy, School of Social Service Administration, The University of Chicago, Chicago, IL; e-mail: jbellamy@uchicago.edu.

Copyright of Journal of Social Work Education is the property of Council on Social Work Education and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.