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# Preparing Social Work Practitioners to Use Evidence-Based Practice

## A Comparison of Experiences From an Implementation Project

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The implementation of evidence-based practice (EBP) as a professional model of practice for social work has been suggested as one approach to support informed clinical decision making. However, different barriers and processes have been identified that impact the use of EBP at individual, organizational, and systemic levels. This article describes results from a project that sought to enhance practitioner use of EBP by using a supportive strategy including training and technical assistance through a partnership between university-based researchers and three social work agencies. Results compare similarities and differences across each of the three agencies in terms of barriers and promoters at the team, organizational, and system levels. Results suggest that comprehensive multilevel interventions are needed to support the use of EBP in social work organizations and that further research is needed to test explicit partnership components. Findings suggest that a multilevel approach has the greatest potential to support implementation of EBP in social agencies.

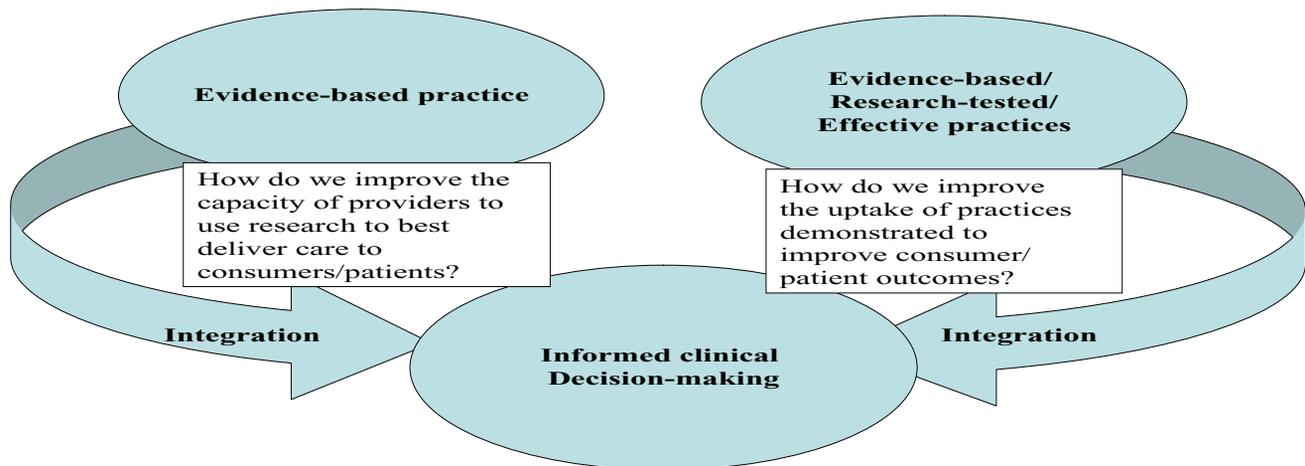
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Recognition that development and communication of research alone is not sufficient to change practice has created a call for studies and strategies to bridge science and practice (Brekke, Ell, & Palinkas, 2007; National Institute of Mental Health, 1999; New Freedom Commission on Mental Health, 2003). In clinical practice, including social work, translational science is the study of how to move the findings of basic science into clinical practice and build research-practice partnerships to increase the clinical relevance of research (U.S. Department of Health and Human Services [USDHHS], 2006). Translational science includes two phases: (a) efficacy and effectiveness trials to build knowledge; and (b) studies designed to enhance the implementation of research-based knowledge (Brekke

et al., 2007). This second phase, implementation science, is “a specified set of activities designed to put into practice an activity or program of known dimensions”

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**Figure 1**  
**Chambers' Model of Informed Clinical Decision Making**



(Fixsen, Naoom, Blase, Friedman, & Wallace, 2005, p. 5). One type of implementation strategy is to increase service providers' capacity to use research (Chambers, 2007) by training and supporting them in the use of evidence-based practice ([EBP] Council for Training in Evidence-Based Behavioral Practice, 2007; Gibbs, 2003; Mullen, Bellamy, Bledsoe, & Francois, 2007; Straus, Richardson, Glasziou, & Haynes, 2005). In this article, we describe our efforts to provide EBP training and support to social workers in three New York City social work agencies, examine similarities and differences among these agencies, and identify possible reasons for these similarities and differences.

## Background and Significance

Even though social workers are encouraged, and sometimes mandated, to use empirically supported interventions (ESIs) or EBP, social work training and practice do not generally incorporate the best available research evidence (Bledsoe et al., 2007; Mullen & Bacon, 2006; Weissman et al., 2006). Despite a growing body of literature focused on identifying effective strategies for implementing EBP and ESI (Fixsen et al., 2005; Greenhalgh, Robert, MacFarlane, Bate & Kyriakidou, 2004; Mullen, Bellamy, & Bledsoe, 2005), little research has been reported examining the use of EBP in social work practice settings (Corrigan & McCracken, 1997; Proctor, 2004).

Chambers (2007) suggests a synergistic relationship between the process of EBP and ESIs. Ideally this relationship should result in an ongoing interaction to create informed decision making by improving providers' competency in using research and by encouraging

studies testing practices used in "real-world" settings. This interaction is shown in Figure 1, which is reproduced with the author's permission.

Chambers' model suggests two types of strategies to improve informed clinical decision making.

- The left side of the model points to EBP-supportive strategies while the right side indicates ESI-supportive strategies. EBP is a decision-making process integrating best research evidence, practitioner expertise, and client or community characteristics, values, and preferences in a manner compatible with the organizational systems and context in which care delivery occurs. EBP has been described extensively in the literature and we assume familiarity with this process. EBP as a professional model of practice has its origins in medicine and has been described as "... the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients" (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996, p. 71); and the "integration of best research evidence with clinical expertise and patient values" (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000, p. 1). EBP is seen as a decision-making process in which policy makers, managers, or practitioners make decisions based, in large part, on empirical evidence. Translating the medical model of EBP to social work, EBP is defined as "... a process of lifelong learning that involves continually posing specific questions of direct practical importance to clients, searching objectively and efficiently for the current best evidence relative to each question, and taking appropriate action guided by evidence" (Gibbs, 2003, p. 6).

Some examples of EBP supportive strategies might include training practitioners in core competencies

common across ESIs, educating practitioners and administrators about EBP to improve attitudes toward research and ESIs, increasing organizational resources dedicated to the identification and application of research to practice, and other techniques supporting practitioners and their capacity to critically appraise and appropriately use research in their practice.

- The right side of the model points to ESI-supportive strategies that might be applied to a variety of targets linked to the development, communication, and sustainability of ESIs. ESI-supportive strategies could include research methods, such as effectiveness trials, that are carried out in real-world contexts with clients commonly served, closely reflecting practice conditions. Other possibilities include development of flexible funding policies that easily allow reimbursement for a variety of ESIs; provision for engaging affordable and geographically accessible training in ESIs to providers; and efforts to make ESIs compatible with a variety of service and programmatic modalities.

## Bringing Evidence for Social Work Training (BEST) Project

### Intervention Design

*An evidence-based supportive strategy.* The BEST project was an EBP-supportive strategy that included training and technical assistance provided in partnerships between a university-based research team and three social work agencies. The BEST project aimed to train practitioners to use EBP as a framework for their use of research knowledge to make informed decisions about client care, thus bridging the research and practice gap. The research team in partnership with agency administrators and participants developed and implemented a collaborative, team process designed to fit the contexts of each agency. The objectives of the training were to (a) foster positive attitudes toward EBP among the participating practitioners; (b) enhance their understanding of EBP and knowledge of EBP skills; and (c) prepare them to use EBP in the future.

*Training.* Each agency team participated in a series of EBP trainings provided by the research team. The research team both 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 designed to provide an introduction to the first four steps of EBP:

motivation, question development, searching for relevant research, and research appraisal, and to facilitate discussion of a plan to move forward with step five: applying the results. These modules and other training materials are available free on the Columbia University Willma & Albert Musher Web site at: <http://www.columbia.edu/cu/musher/Website/Website/index.htm>

The 10 modules are as listed below:

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

The training used a problem-based learning strategy to develop team member competencies in EBP. The team members learned to transform important practice-based problems and uncertainties into researchable questions. The research team served in a consultant role providing technical support for the agency teams' efforts to locate, evaluate, and appraise evidence in order to seek answers to their respective EBP questions.

### Research and Evaluation Design

The BEST project used a four-phase, collaborative, social intervention research design, which involved an iterative process of intervention design, piloting, and redesign based on participants' feedback (Rothman & Thomas, 1993). The first two phases consisted of (a) a review of the EBP implementation literature; and (b) interviews with local research experts to seek their knowledge and opinions about how to implement EBP (Bellamy, Beldsoe, & Traube, 2006). We sought to identify what is considered to be good implementation practice as well as what are considered to be implementation barriers and useful facilitators or promoters. In the third phase, the research team worked with agency administrators, supervisors, and clinicians to design, implement, monitor, adjust, and evaluate the BEST training. The fourth phase built on the findings to identify ways in which the EBP training program, the implementation strategy, and the evaluation design could be modified for future applications. In this article, we present findings from one aspect of the third phase.

The third phase of the project included a process and outcome evaluation of the training. The primary means of evaluation was analysis of focus group data collected

prior to and following the EBP training. Focus groups were conducted separately with each of the agency teams for a total of six focus groups; three pretraining and three posttraining. Focus groups were conducted using a protocol of questions and probes developed by the research team based on the Phases I and II literature review and interviews with experts (Bellamy et al., 2005).

Each focus group was facilitated by two trained research team members who had previous experience in qualitative research methods. The baseline focus groups, held prior to the training, involved questions about participants' knowledge and past experience with EBP and their perceived barriers and promoters to using EBP in their agency. The follow-up focus groups were held on average 10 weeks following the training and included questions about the participants' current knowledge and perceptions of EBP, the use of EBP in practice, perceived barriers and promoters they experienced in using EBP, and their agency's future plans to use EBP. All focus groups were audio taped and transcribed verbatim. Interviewer notes that focused on emerging themes were recorded for each focus group.

The following strategies were used to improve the reliability and validity of the focus group analysis: triangulation of data and sources, multiple coders, and member checking. Triangulation was achieved through the comparison of multiple forms of data: audio recordings, interviewer notes, and verbatim transcriptions. Using qualitative data analysis methods described by Krueger and Casey (2000), all focus group transcripts and interviewer notes were first imported into NVivo 7.0 (2006) qualitative software. Major themes were developed a priori as described above and used as tree nodes in NVivo. Passages from each focus group transcript were coded to the appropriate tree nodes. Other major themes emerged during the process of coding and were designated as tree nodes and coded accordingly. Coding was reviewed and refined into subtheme categories for each major theme.

To ensure reliability, two research team members coded the transcripts independently and then cross-checked the coding classifications. To resolve ambiguities and coding discrepancies, research team members reviewed focus group transcripts until consensus was reached. Member checking was accomplished by presenting and eliciting feedback on the preliminary findings to the agency team members and administrators.

### **Previously Reported Phases I, II, and III Findings**

Previously, we have reported the results of the first three phases including the literature review, the

interviews with experts, and the main results of the training program at professional meetings and in publications (Bellamy, Bledsoe, Mullen, Fang, & Manuel, *IN PRESS*; Bellamy et al., 2006; Mullen, Bledsoe, & Bellamy, *IN PRESS*; Mullen et al., 2005).

### **Phases I and II Findings in Summary**

In the first two phases, we found that prior research suggests that EBP implementation strategies need to be multilevel and multifaceted if they are to succeed. We also found that research and expert opinion regarding barriers to and facilitators of EBP implementation typically focused on practitioner attitudes, behaviors, and knowledge. The most frequently cited barriers to EBP implementation include practitioner lack of knowledge and skills for using EBP and suspicion of researchers and of EBP (Aarons, 2004; Bellamy et al., 2006; Gotham, 2004; Ogborne, Wild, Braun, & Newton-Taylor, 1998).

Other researchers have called attention to system level variables as important determinants of successful implementation, highlighting the need to take into account the complexity and diversity of social work service settings (Fraser & Greenhalgh, 2001; Henggeler & Schoenwald, 2002; Simpson, 2002). These authors suggest that variables such as leadership attitudes or styles, staff resources, regulatory and financial pressures, and management style may have an even greater role in transferring research to practice than do personal or individual level variables (Aarons & Sawitzky, 2006; Barrett, 2003; Barwick et al. 2005; Mullen & Streiner, 2004; Scott-Findlay & Golden-Biddle, 2005). The literature supports the idea that social service agencies are not only complex but also vary in the quality of leadership and supervision, and organizational norms, expectations, and climate (Glisson, 2002). Methods of disseminating and implementing research in practice often do not take into account these factors and, as a result of this omission, risk failure (Addis, 2002; Henggeler & Schoenwald, 2002). This issue may be amplified in fields such as social work where practice contexts vary broadly.

### **Phase III Findings Previously Reported**

Findings from the Phase III BEST project, which involved implementation of the training and technical assistance component generally, suggest that practitioners were able to learn the process of EBP and develop positive attitudes toward EBP (Bellamy et al., *IN PRESS*; Mullen et al., 2005; Mullen et al., *IN PRESS*). However, participants identified a number

of barriers that limited their use of EBP in their agencies.

### Phase III Findings Reported in this Paper

In this article, we report how practitioners from each of the three agencies differed in their experiences and views of EBP after participating in this training program. Using case analysis of the three agencies and their respective EBP teams, we compare and contrast the barriers, solutions, and promoters specific to each agency. Findings from the BEST project provide an opportunity to explore the similarities and differences in barriers, solutions, and promoters across different social work agency and team contexts.

### Partner Agencies

Given the exploratory nature of this study and the emphasis on partnership, a convenience sample of four New York City social agencies was recruited. These agencies had long-standing relationships with the Columbia University School of Social Work where the research team was based. These four agencies were invited to partner with the research team on an EBP-focused project. Three agencies agreed to participate in the project. The fourth agency initially agreed to participate, but after an initial team meeting chose not to proceed because of external policy changes that prompted unforeseen restructuring in the agency, and therefore no data from this agency are included in this article.

In each participating agency, a senior administrator was approached and invited to participate by the principal investigator as a first step in recruitment. Once an agreement had been reached with the senior administrator, other research team members, agency administrators, and agency staff were involved in project development. With the help of agency administrators, teams of four to six staff members were formed at each agency for a total of 16 voluntary staff participants. Participants were not compensated for their involvement in the study. All project activities took place during regular work hours.

### Agency Characteristics

To provide anonymity, we refer to participating agencies as Agency A, B, and C.

- Agency A provides a variety of child, adult, and family services to more than 12,000 individuals in a predominantly Latino immigrant community. Participants from Agency A were upper level administrators and supervisors selected from

multiple child and family service programs within the agency.

- Agency B is a unusually large human service organization. Through 85 programs at 25 locations in New York City, each year it serves more than 40,000 individuals who have diverse needs and backgrounds. Administrators at this agency selected a single program focus for BEST project participation, namely a multisite housing program primarily serving persons with chronic, severe mental illness as well as substance abuse or addiction. Participants from Agency B were program and site supervisors.
- Agency C is a large interdisciplinary community health center, which provides a variety of health and mental health-related services to primarily Asian communities. With over 320 staff members, every year it serves over 24,000 community residents and provides more than 115,000 patient visits. The BEST project team worked within the mental health services unit of the organization's health center. Participants included supervisors, therapists, case managers, and an intern.

Table 1 summarizes the characteristics of the agency team members. As shown, the demographic and professional characteristics of the agency team members varied considerably on all dimensions. Agency A staff were all female social workers with considerable experience, typically Caucasians, more highly paid and educated, and occupying higher level agency positions. Agency B staff were among the oldest of the three teams, were primarily African Americans, with mostly baccalaureate degrees typically in social work but not always and occupying higher level agency positions. Agency C staff were the youngest, all Asian Americans, with a mix of staff and supervisors with baccalaureate and graduate degrees in social work. Agency C was the only ones including full-time case managers and students. These variations will be referred to in the discussion as possible explanations for variation in perception of barriers, solutions, and promoters.

### Barriers, Solutions, and Promoters

In the remainder of this article, we present and discuss findings about the perceptions of each agency's team members regarding barriers, solutions, and promoters of implementing EBP at their respective agencies. A summary comparison of similarities and differences in regard to barriers, solutions, and promoters among the three agencies is presented in Tables 2 and 3. Tables 2 and 3 organize these barriers, solutions, and promoters into broad categories corresponding to individual practitioner variables, organizational variables, and systemic variables. Also noted is whether the event was specified

**Table 1**  
**Agency Team Member Characteristics**

	Agency A ( <i>n</i> = 6)		Agency B ( <i>n</i> = 4)		Agency C ( <i>n</i> = 6)	
	<i>M</i> or <i>n</i>	<i>SD</i> or %	<i>M</i> or <i>n</i>	<i>SD</i> or %	<i>M</i> or <i>n</i>	<i>SD</i> or %
Age	39.6	5.9	43	4.2	25	3.5
Female	6	100%	3	75%	5	83.3%
Race						
Asian	0	0%	0	0%	6	100%
Black/African American	0	0%	3	75%	0	0%
Caucasian/White	5	83.3%	1	25%	0	0%
Hispanic/Latino	1	16.7%	0	0%	0	0%
Salary						
35K or less	0	0%	0	0%	2	33.3%
35K–50K	3	50%	3	75%	3	50%
50K or more	3	50%	1	25%	0	0%
Education						
Bachelor's	0	0%	3	75%	3	50%
Master's	5	83.3%	1	25%	2	33.3%
Ph.D.	1	16.7%	0	0	1	16.7%
Degree focus						
Social work	6	100%	3	75%	4	66.6%
Social work license	6	100%	1	33.3%	1	16.7%
Years worked	11	9.2	5.8	6.5	1.8	2.6
Position						
Supervisor	4	66.7%	3	75%	0	0%
Clinical social worker	0	0%	0	0%	2	33.3%
Case Manager	0	0%	0	0%	2	33.3%
Director	2	33.3%	1	25%	1	16.7%
Student Intern	0	0%	0	0%	1	16.7%

Note: Agency C has one missing observation for self-reported income.

in the preintervention baseline focus group, postintervention follow-up focus group, or at both pre- and postintervention focus groups.

As shown in Table 2, two individual level themes were identified as barriers to implementing EBP, namely (a) suspicion of research; and (b) lack of knowledge, skills, training, supervision and monitoring especially pertaining to research. Most striking is the persistence from pre- to postintervention of concerns about the lack of necessary skills to understand and judge the quality of research and the need for ongoing supervision and monitoring. Agency A, however, did not include the latter as a concern at postintervention. It is reassuring that while all of the teams mentioned difficulties in defining EBP at preintervention, this was not an expressed concern at postintervention.

As shown in Table 2, organizational level barriers were the most frequently cited. Two organizational level themes were identified as barriers, namely (a) agency characteristics and (b) lack of needed resources. Generally the organizational level barriers identified at preintervention remained a concern at postintervention although Agency C reported less concern about such

barriers at postintervention (three of the six barriers were no longer of concern).

Table 2 shows that one systemic barrier was identified pertaining to the lack of fit or applicability of research findings to specific practice contexts. Generally, while this was an identified barrier at preintervention, the expression of concern about this increased at postintervention.

Promoters for and solutions to barriers identified pertaining to the implementation of EBP in agencies are summarized in Table 3.

As shown in Table 3, the general pattern is that promoters and solutions that were identified at preintervention were again identified at postintervention with the exception of the need to enhance staff motivation in two of the teams, although Agency C raised this as a concern at postintervention. All of the teams identified a number of additional promoters and solutions at postintervention such as the use of a team approach for implementation of EBP and the provision for additional training to develop skills in assessing research. The majority of the promoters and solutions identified were things that agencies needed to do such as protecting time for EBP

**Table 2**  
**Barriers Identified by Team Members Pre- and Postintervention**

Barriers	Agency A	Agency B	Agency C
<b>Individual factors</b>			
Suspicion (also see negative attitude)			
Research minimizes need for practice wisdom	■		▲
Lack of knowledge, skills, training, supervision/monitoring			
Defining EBP	■	■	■
Skills to understand and judge the quality of research	▲	▲	▲
Ongoing supervision/monitoring	■	▲	▲
Basic research skills from school not “sticking”	○		
<b>Organizational factors</b>			
Agency-level factors/culture of practice	▲	○	
Staff view EBP as more work		▲	■
Research is not a high priority	○	▲	
Change from traditional approaches to practice is difficult		○	■
Financial resources not dedicated to or available for EBP	▲	▲	▲
Staff turnover		○	○
Lack of resources (time, access, funding)			
Time, staff are overburdened	▲	▲	▲
Access to online resources, subscription sites, full-text articles	▲	▲	▲
Funding to support EBP activities		▲	■
Consistent, well-trained staff		▲	
<b>Systemic factors</b>			
Lack of fit or application			
Research is too limited (e.g., not applicable to client population, does not address client needs)	○	○	▲
Lack of sufficient evidence on which to base outcomes	▲	■	▲
Doesn't tell you “how to” apply research in practice	○	▲	○

Note: The symbol “▲” indicates the theme was indicated in both pre- and postintervention focus groups; the symbol “■” in preintervention only; and the symbol “○” in postintervention only. Cells without symbols indicate the theme was not mentioned by the corresponding agency.

and provision for funding to support EBP. Interestingly, while relatively few systemic factors were identified as barriers (Table 2), as shown in Table 3, a number of such factors were identified as needed promoters and solutions including increased university–agency partnerships for promoting EBP.

In the next section, we discuss each of the three-agency teams with reference to similarities and differences in their identification of barriers, promoters, and solutions.

### Agency A

**Barriers.** Agency A's team member responses at baseline and at follow-up were similar in their perceptions of barriers to implementing EBP at their agency. One major barrier that participants from Agency A focused on was the lack of resources in terms of time, access to research articles, and funding. For example, several participants discussed not having enough time to gain access to, review, and evaluate research articles. One participant summed up the perceptions of many with, “. . . the burden has been squarely on the shoulders of the clinician to keep up [with] the learning and it's an unrealistic

expectation with the workload.” In addition, access to research articles was a concern among the team members, primarily because agency participants reported that they had limited access to technology to locate and retrieve full-text research articles due to prohibitive fees attached to many search engines and databases.

One barrier in particular that diminished from baseline to follow-up for Agency A was suspicion of “EBP as a process.” During the baseline focus group discussion, Agency A participants focused primarily on EBP as being “artificially reduced and narrowly focused” and a phenomenon that “doesn't capture the art of practice.” During the follow-up focus group, however, the participants' suspicion appeared to diminish, as reflected in such comments as “. . . it feels much more tailored to where we're coming from and what our interests and values are . . .” and “. . . it would be interesting and helpful to . . . implement some of this research knowledge.”

However, Agency A participants were not without criticism of EBP. Several participants described their concern about the lack of fit in terms of irrelevant or insufficient evidence and little connection to theory or application to practice. One participant related the lack of fit to the gap between research and practice by saying,

**Table 3**  
**Solutions and Promoters Identified by Team Members Pre- and Postintervention**

Solutions and Promoters	Agency A	Agency B	Agency C
Individual factors			
Knowledge, skills, training, supervision/monitoring			
Training to develop skills to understand and judge the quality of research	▲	○	○
Ongoing supervision and monitoring		○	▲
EBP handouts and tools to help streamline the process		○	
Organizational factors			
Culture of practice			
Incorporate into structure, daily practice, professional development activities			○
Staff motivation, support	■	○	■
Leadership motivation, support			▲
Increase staff retention		○	
Resources (time, access, funding)			
Receive assistance from resource/technical support person or student intern			▲
Protected and dedicated time for EBP	▲	▲	▲
More quality, well-training staff		▲	
More funding to support EBP	▲	▲	▲
Use of team approach/format	○	○	○
Systemic factors			
University–agency collaboration			
Use of student interns as resource	○		
Technical assistance, access to research articles	▲		▲
Builds in protective time to carry out EBP	○		
External pressure			
From funding sources to produce outcomes		○	
Continuing education	○		
Involvement of or collaboration with social work organizations and associations (e.g., access to literature)	○		
New trend/innovation, vogue		○	

Note: The symbol “▲” indicates the theme was indicated in both pre- and postintervention focus groups; the symbol “■” in preintervention only; and the symbol “○” in postintervention only. Cells without symbols indicate the theme was not mentioned by the corresponding agency.

“There’s a gap between what’s been done on the research level and what’s being done everyday on the frontlines.” Furthermore, this same participant commented, “The divide is difficult between university and agency cultures,” and suggested that bridging the university and agency gap is complicated due to different needs and pressures (e.g., funding, publications, tenure) of both the worlds. A few participants also expressed displeasure with the fact that accreditation, government, or other monitoring bodies handed down ESIs or related directives without realistic consideration for practice issues or the need for support (i.e., external training, supervision, and consultation) when implementing practice innovations. Participants emphasized the importance of a flexible practice model that allowed for modification or tailoring of identified ESI to the agency or client context.

A barrier that perhaps evolved with increased experience using EBP was the lack of research knowledge, skills, and training necessary to implement and sustain EBP. This barrier was reflected in one participant’s

comments at follow-up, “Those basic research processes [taught in schools of social work] are not catching on or sticking in some way that . . . will bring you in a good place into the world of practice.” Another participant similarly commented, “. . . our basic skill set is so different than what would prepare us to embark on [EBP] . . .” Although participants were taught the skills to use EBP, some felt that they needed more practice, training, or ongoing consultation, particularly to evaluate the quality of empirical evidence and in order to use EBP in the future.

*Solutions and Promoters.* In the initial focus group meeting, Agency A participants identified a number of individual level promoters (e.g., ongoing training and skills to find, interpret, and evaluate research reports). In the follow-up focus group, these participants identified a number of innovative structural and organizational solutions and promoters for implementing EBP. For example, participants discussed the importance of building and sustaining university–agency partnerships

as a way of meeting the need for continued support and assistance, as reflected in one participant's comment

I think [the] universities [should] 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.

Classes and field placements at schools of social work were seen as potential mechanisms or tools for implementing EBP. Agency A participants discussed sustaining the use of EBP with the help of student interns. For example, as part of their field placements, one team member said that they were planning to have students help search for and review the literature and also participate in critical discussion of the results during team meetings. This team saw this as not only benefiting the providers but also enhancing the students' capacity to use EBP; their knowledge about the agency's target population and problems; and their critical thinking skills.

Agency A participants also described the potential role of professional organizations, such as accreditation committees, licensure boards, and funding agencies, to serve as resources for practitioners engaging in EBP. Professional organizations were identified by this team as possible providers of EBP continuing education training and as positioned to provide access to empirical evidence by giving members access to fee-based databases and search engines.

Another promoter identified by Agency A was the need for protected time in practice to use EBP. For example, participants found that participation in the BEST project provided protected time dedicated to EBP-related activities. They saw the conversion of existing in-house trainings and staff development activities to focus on EBP as a potential way of continuing to protect staff time. The use of a team approach as an implementation mechanism was also discussed, despite the general agreement that the EBP tasks would need to be divided among agency providers. The need for ongoing technical assistance and skill development in monitoring the application of EBP and client outcomes as important promoters was also highlighted. Finally, team members expressed the view that EBP is currently presented as an innovation by external organizations (e.g., licensing boards, funding agencies, and professional organizations). These external organizations were seen as exerting pressure on the agency to adopt EBP. For example, this team expressed the view that agencies must compete with one another for funding and that if funding bodies adopt EBP as a criterion for awarding support, those agencies demonstrating cutting edge/EBPs will be best positioned to compete.

## Agency B

*Barriers.* There was little variation among the barriers described at baseline and follow-up for Agency B participants. They identified the following barriers: (a) lack of resources, including time, access to research articles, and funding; (b) lack of fit in terms of research findings not matching the needs or types of clients seen at the agency; and (c) lack of attention in the published research to the feasibility of application of identified ESI in practice. For example, several participants noted that time and access were two primary barriers, as reflected by the comment of one participant who said, "I think access [is a barrier] . . . we can't really pay for [fee based search engines and databases to access articles]." Another participant commented, "The only drawback is time—not having enough time prevents you from doing [EBP]." Several members thought that the lack of resources (e.g., funding, time, access, well-trained staff) was their major barrier to implementing EBP, as reflected by one member who stated, "If we had the resources [in terms of funding and staff], we would be able to present a good enough case [to adopt EBP]." Lack of fit with the realities of practice was also a concern among members of this group. One participant's comment summarized the view of the group, "It's easy to sit and do a study, but to put it into practice into the real world, you know [is difficult]."

There was a notable change from suspicion of EBP at baseline to having a more positive, open-minded attitude about EBP at follow-up among Agency B participants. In addition, participants from Agency B identified more barriers with regard to lack of knowledge and skills to carry out EBP during the follow-up focus group in comparison to their baseline focus group. One participant claimed that it would be difficult to implement EBP with the current structure of their agency because ". . . we don't have the staff who are versed in those skills." This comment referenced the agency's lack of staff with formal education beyond high school. This concern was echoed by other staff members, as reflected by the following statements, ". . . some [staff members] may not have the training or qualifications" and ". . . some [staff members] are bright enough to get [EBP] and maybe gain from it . . . but then we have staff [members] that no matter what you do, there's no change [in their skill level]."

*Solutions and Promoters.* Suggested solutions and promoters identified by Agency B participants in the follow-up focus group revolved around agency level

resources that would address the barriers mentioned above. The follow-up discussion focused on the need for more financial resources to hire staff with advanced education and skills and to fund new, innovative interventions and trainings. Most were concerned about the skill level required to implement EBP. For example, one participant said, “The investment of resources in hiring quality staff would make a huge difference in what we would be able to accomplish.” Others reiterated this point by saying, “I would hire staff that have more skills” and “. . . you need more professional people to be able to implement [EBP].” Participants felt that if the agency put forth more investment into hiring qualified staff, more time could be allotted to building innovations and new interventions, like EBP, into the agency structure instead of the additional supervision time that is required for staff with fewer qualifications and less training.

Agency B participants generally agreed that EBP is “not really a case-by-case thing, but how we want to approach things.” To implement EBP successfully at their agency, a group format (team approach) was suggested. Most participants also agreed that adopting EBP informally, without formal integration into the agency structure, or by selecting to use only certain pieces of the process when they perceive it to be manageable, would be feasible options to implement EBP into the current agency structure. One participant suggested,

I think [EBP should be] done in piecemeal. I think we really need to try to move in that direction and to just work with people individually as opposed to overall programmatic changes.

Finally, participants from Agency B found the “new trend” of EBP enticing. One participant remarked, “Well, I think that using EBP is what’s equivalent to vogue. I think that it’s . . . a motivator to use it—it’s new [and] what’s being done [stimulates you] to want to use it and be one of the programs to do something new . . . change is necessary and you always want to look to make things better.” This team reported that the agency’s perception of EBP as an innovative approach is related to the pressure they have received from funding agencies and accrediting bodies to use empirically supported practices.

### Agency C

*Barriers.* Agency C identified a relatively broader range of barriers in the follow-up focus group discussion than did Agency A or B, including (a) lack of EBP knowledge or skills; (b) lack of fit in terms of

insufficient evidence to meet client needs; (c) lack of relevance to different cultures and racial/ethnic groups; (d) lack of resources (e.g., time and access); and (e) lack of an agency or professional culture encouraging and supporting the implementation of EBP. These barriers were identified at both the baseline and follow-up focus group discussions, although several of these barriers were more pronounced at follow-up. For example, participants focused on agency factors, such as practitioner burden (e.g., competing demands of clinical responsibilities) and lack of resources, specifically time constraints and limited access to research articles. Most saw value in using EBP. For example, one participant commented,

. . . there is going to be a clash between the time we’re going to spend on [EBP] versus the time that you’re supposed to be practicing clinically. Obviously, it’s a very important thing to do, but how do you spend time?

Another participant similarly commented, “I would like to try [to use EBP], but concern is the time and manpower.”

While Agency C participants felt comfortable in their ability to search and find research articles, they were concerned about their ability to access and interpret the findings and evaluate the quality of the research evidence without additional support and training. Participants were also concerned with how research findings, particularly ESIs identified in the empirical literature, could be implemented in practice without the benefit of manuals, trainings, and supervision. These barriers may contribute the disjointed perception of EBP as distinct and separate from clinical practice exemplified by the comment above.

*Solutions and Promoters.* Participants from Agency C specified a number of solutions to promote EBP in the follow-up focus group discussion. In addition to the solutions and promoters described by the other agencies, such as access to research articles, protected time for EBP, and knowledge and skill development, Agency C participants focused largely on incorporating EBP into the agency culture. One participant remarked, “The organization really needs to support this process . . . and incorporate [EBP] into [the] agency structure and promote that type of agency structure.” The importance of “buy-in” or support from agency leadership or administration was highlighted. Moreover, participants anticipated that this kind of agency support could affect staff recruitment. Qualified job candidates would be those who believe in the values of EBP and possess the necessary skills to be evidence-based practitioners.

The importance of integrating the EBP process into daily practice and regular team meetings was also identified by Agency C participants. To fully implement EBP into the current agency structure, participants generally felt that implementation would need to be broken down into small manageable tasks shared across agency providers. One participant noted, "Probably as a group process, we probably would divide it into different tasks, smaller tasks, among people."

Ongoing technical support and guidance, particularly from persons with research expertise, throughout the EBP process was also suggested. Agency C participants stressed the importance of having a staff member who was versed in both research and clinical knowledge and skills. Additionally, they identified the need for increased university–agency partnerships.

Agency C participants expanded the idea that social work should learn from other disciplines, such as medicine, whose alumni and affiliated practitioners are provided with library privileges and free access to online journals. One participant said, "I think school has a role . . . to provide alum with access. You look at medical school, and all MDs have access to libraries at universities." This speaks to professional culture and differences between social work and some other helping professions. In addition, similar to the other agencies, the Agency C team recognized the novelty or innovation of EBP. Using EBP to inform practice is seen as a "trend," which appeared to be a motivating factor for some to adopt EBP.

## Discussion

Methods for disseminating and implementing EBP often fail to account for the complexities of real-world service settings, such as the variation in the quality and skill level of staff members, quality of administrative leadership and supervision, organizational norms and expectations, and climate (Glisson, 2002). An efficient approach to the implementation of EBP may be to tailor translational strategies to the service contexts taking into account these complexities (Logan & Graham, 1998). In keeping with this contextual approach to implementation, an objective of this article has been to explore, compare, and contrast staff perceptions of barriers, solutions, and promoters to implementing EBP in three different social service agencies based on participant experiences in the BEST project. While results indicate several common themes among the three agencies, particularly in regard to barriers (e.g., lack of resources to support EBP, lack of fit or relevance of available evidence, and lack of knowledge, skills, and supervision/

monitoring to use EBP), the participants identified solutions and promoters that were specific to their agency structures and contexts. This highlights the importance of having flexible and multimodal strategies for assessing and implementing innovations like EBP in real-world service contexts. Barriers to EBP extend across multiple levels, including systems external to host provider agencies, provider agencies themselves, and individual practitioners within the provider agencies. EBP-supportive strategies should attend to each level. In addition, while the BEST project focused on the attitudes, knowledge, and skills needed by practitioners working in agency settings to engage in EBP (left side issues in Chambers' model shown in Figure 1), the participants identified as a concern their lack of knowledge and skills needed to implement ESIs identified through the EBP process (right side issues in the Chambers' model). Accordingly, it may be insufficient to train practitioners in the process of EBP without also providing for resources to train staff in the use of specific ESIs identified in the EBP process. While this problem can be addressed in part by social work training programs as suggested by Weissman and colleagues (2006), the changing nature of client problems and the rapid evolution of practice knowledge necessitates thoughtful attention to solutions related to quality, accessible continuing education programs for community practitioners focused on training in emerging ESI, and promising interventions and practices designed for use in practice.

A theme that was consistent across all of the agencies was the lack of fit of the evidence with the complexities of agency practice, including the diversity of clients, situations, and circumstances. This underscores the gap between research and practice, which Agency A specifically highlighted, and points to the need for researchers and practitioners to work together to develop and implement approaches that are feasible, flexible, sustainable, and relevant to agency practice contexts. Similarly, a major barrier that Agency C described was that much of the evidence identified lacks relevance to their clients who are primarily Asian immigrants or second-generation Asian Americans. The scarcity of culturally-specific evidence has been identified in the literature frequently (Gellis & Reid, 2004) and continues to be a barrier to the widespread use of EBP in agency practice. As our findings indicate, agency staff continue to be skeptical regarding research findings that are not culturally specific to populations they are serving. It seems reasonable to assume that if EBP is widely adopted in practice, the synergistic relationship between EBP and ESI should result in increased communication between practitioners and researchers addressing the

perceived disconnect between existing evidence and the realities of agency practice.

The need for additional knowledge, skills, and supervision to successfully implement and sustain EBP is a common theme that emerged from all three agencies, albeit with some variations across agencies. Agency B emphasized more than the other agencies that the quality and skill level of the staff are important to consider when adopting EBP. Agency B participants said their staff, composed of paraprofessionals, were not qualified to learn the skills and carry out the process of EBP; whereas Agency A thought that their professional staff could learn the basic EBP skills if they had time in their schedule to practice and had some technical support. Supervisors from Agency B held baccalaureate degrees, however, the staff they supervised did not have this level of education. This is contrasted with the other two agencies where the majority of staff interacting with clients had professional degrees. In addition, although both agencies B and C participants expressed confidence in their ability to search and find articles, they expressed less confidence in their ability to assess the quality of emerging evidence, reporting a need for more training in comparison to Agency A. Agencies B and C also stressed the need for continued supervision and monitoring in the use of specific EBPs following BEST project training.

These findings relate to the core components for implementation, including staff selection, training, and supervision and monitoring, identified by Fixsen et al. (2005). Staff selection can serve as a key implementation driver, yet has received very little attention in the social work literature (Fixsen et al., 2005). Team membership is an important component to consider when implementing EBP. Not everyone has the prerequisite training necessary to build the skill set or competencies needed for EBP. In addition to academic qualifications and experience, Fixsen and colleagues (2005) suggest that other staff characteristics are important to consider, including knowledge of the field, common sense, social justice, ethics, willingness to learn, willingness to intervene, and good judgment. Training in EBP alone does not serve as a sufficient mechanism for sustainable implementation, particularly in the absence of relevant formal education. EBP training may be more effective when combined with consultation beyond the initial implementation period, as many skills needed by practitioners to implement a new practice are more effectively learned “on the job” with the help of a coach or consultant.

Supervision and monitoring the EBP process are also critical components to ensure that practitioners are knowledgeable and competent in EBP and applying the

model appropriately in practice (Fixsen et al., 2005). However, the level of supervision and monitoring necessary to sustain the successful use of EBP may depend on the educational background and experience of staff. For example, we found that Agencies B and C emphasized more ongoing supervision and monitoring in comparison to Agency A. Supervisors or administrators involved at both of these agencies reported that they had not been exposed to research for several years, while at least one administrator involved at Agency A was still actively involved in academic work—both in research and teaching. Supervision and monitoring may not have been a major concern at Agency A since a team member was currently involved in work related to research and evaluation, while team members at agencies B and C had less recent experience related to research. While we cannot state with any certainty that the level of ongoing supervision and monitoring depends on the educational background of the agency staff, such factors may be important to consider when selecting agency providers or teams. Future implementation research should explore such factors as staff selection, training, and supervision and monitoring processes.

Core mechanisms like staff selection, training, and supervision and monitoring are essential for successful implementation of EBP to occur, however, they do not exist in isolation. These mechanisms exist within an organizational climate and culture that must support and enable those mechanisms to be sustained over time, even in the context of such influential changes as leadership, funding priorities, and other external social, economic, and political forces that potentially impact staffing and climate changes within an organization (Fixsen et al., 2005). Across agency teams, organizational climate and culture of agencies were seen as important factors to consider when implementing EBP.

In the BEST project, we found that Agency B reported more agency-level barriers than agencies A and C. Agency B participants alone said that changing traditional practice approaches would be difficult and a challenge to implementing innovations like EBP in a large multiservice agency (this agency is among the largest and oldest in the United States). Agencies A and B considered the organization culture as another barrier, specifically given that research has not been traditionally seen as a priority at their agencies. Both agencies B and C reported that inadequate funding and high staff turnover were factors that would impede the implementation of EBP at their agencies. Access to financial resources was highlighted as one potential solution by Agency B participants and was linked to the capacity to hire and retain high-quality and skilled staff. These participants felt strongly about the support from their

administrators, which would enable them to have sufficient resources (e.g., staffing, time) to implement EBP.

Consistent with much of the current literature (Anderson, Cosby, Swan, Moore, & Broekhoven, 1999; Barratt, 2003; Fixsen et al., 2005; Mullen & Bacon, 2006), all three agencies concurred that additional resources to access research articles, training, and supervision as well as protected time to find and evaluate articles were needed as promoters to successfully implement EBP. Another organizational factor that Agency C emphasized is the importance of and necessity of gaining “buy-in” or support from their agency leaders to implement EBP. Support from top management staff is a necessary ingredient for successful implementation to occur (Fixsen et al., 2005). Without the support of agency directors or administrators, an innovation like EBP is likely to have little success of being implemented or sustained. In this project, we made a specific attempt to meet with top agency administrators prior to implementing the project. We were able to meet with top administrators at two of the three agencies (Agencies A and B), which may have made some difference for at least one of the agencies, Agency A, in terms of their motivation to sustain their involvement in the BEST project and their motivation to implement EBP. At Agency A, top agency administrators directly participated in the BEST team meetings and in implementing EBP. The ability of these senior administrators to make necessary changes in agency resources and climate to support EBP might explain why Agency A’s sustainability plan was the most clearly outlined. These findings exemplify how the core components of staff selection, training, and supervision are closely tied with organizational values, structure, and capacity, and thus should be considered together during the implementation process. At the same time, it is also important to understand the larger context under which agencies operate that may impede or facilitate structural changes (e.g., hiring more experienced, qualified staff), such as external funding resources and managed care policies.

Multiple systemic solutions and promoters were also identified by the three-agency teams. For example, agencies A and C suggested that EBP implementation would be enhanced through university–agency partnerships. The project itself served as a mechanism that appeared to increase the practitioners’ interest and motivation to use EBP. Innovations like EBP are more likely to be adopted if potential users of the innovation are involved in the early stages of implementation (Gustafson et al., 2003). Stakeholders’ involvement and “buy-in” are critical ingredients during the beginning stages of EBP implementation as well (Fixsen et al., 2005).

Our findings suggest that practitioners’ motivation to use research evidence in practice can be increased by EBP training, despite prior studies that have indicated that social workers often prefer sources of knowledge other than research to inform practice (see Gibbs & Gambrill, 2002; Kirk & Rosenblatt, 1981; Mullen & Bacon, 2006). In addition, Agency A recommended that professional organizations, such as accreditation committees, licensing boards, and funding agencies, could play a more active role in promoting the use of EBP, such as providing access to fee-based search engines and databases as well as full-text articles. They also suggested that professional organization and schools of social work could offer continuing education credits for being trained in and using EBP and ESI. In addition, Agency C suggested that social work schools could play a more active role by providing alumni and affiliates with access to full-text journal articles and library collections. These system-level factors point to the need for greater investment by social work as a profession in order to promote the availability of empirical research and advance EBP as a professional model of practice. Agency B recognized the influence of external pressures that are placed on agencies to use EBP and ESI in order to produce positive outcomes but did not feel influenced by professional organizations or schools of social work. This is likely due to the fact that fewer participants from Agency B had advanced social work degrees in comparison to the other two agencies. These findings suggest the potential for larger organizations and systems to engage and support social work organizations in their efforts to apply EBP in practice.

## Discussion and Applications to Practice

EBP is a relatively new innovation for social work. Limited research exists to guide implementation in complex, diverse social work settings serving diverse populations with multiple needs and challenges. This project is one of few systematic efforts aimed at studying the implementation of EBP in social work agencies. An important limitation of this study is the small sample size that included only three agencies in which teams of four to six staff members were formed in each agency for a total of 16 voluntary staff participants. Although it has limited generalizability due to the small sample size and exploratory nature of the study, we are hopeful that our experiences in the BEST project can inform current and future efforts to systematically implement EBP in social service settings. Based on our experience, several key questions are identified for examination in future research.

- Who in an organization should be trained in which parts of the EBP process? Is it realistic for individual practitioners to independently perform all of the steps of EBP, or is a team approach to EBP more feasible and efficient?
- When a team approach is used, which our findings support, does it matter who is part of the team? For example, how are members best selected for an EBP team? Do these decisions necessarily vary by organizational structure, service type, or staff skill level in terms of the person's educational background, experience, or motivation?
- Future research should examine the unique contributions of individual, organization, and systemic factors in facilitating or impeding the implementation of EBP.
- It is widely thought that an organizations readiness to engage in EBP should be assessed as part of implementation design. There is a need for researchers to develop and test organizational readiness measures appropriate to social work agencies that take into account the variations found in practice especially pertaining to barriers, solutions, and promoters. Our sample was small yet striking differences were evident. How much greater would the variation be in a larger set of social work agencies, especially when considered in an international context?
- Several systemic factors were seen as potential solutions and promoters to implementing EBP. Future research should examine these as potential mechanisms for implementing EBP. If schools of social work provided alumni free access to research articles, would this increase the likelihood that practitioners would use research in practice?
- The model tested in this project rested on a university–agency partnership. Future research is needed to develop and test a range of these and other research–agency partnerships since it is likely that few social work agencies will be able to sustain EBP without external support.

The BEST project demonstrates that, although commonalities exist across agencies in terms of barriers and promoters, efforts to implement EBP need to take into account the specifics of agency context and culture. Our experiences suggest that a multilevel approach—one that targets practitioner attitudes and motivation, agency climate and context, and university–agency partnerships—has the greatest potential to support implementation of EBP in social agencies.

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