# Evidence-Based Practice:
## Identifying and Removing Barriers to Implementation
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Since the earliest days of the social work profession, debates over the extent to which science and research can, or should, inform practice have been common (Bronson, 2000). Various strategies to bridge the gap between research and practice have been proposed over the years, but the recent introduction of evidence-based practice (EBP) to social work may prove to be the best approach yet for linking the two; whether EBP succeeds in bridging the gap between research and practice will depend largely on anticipating possible barriers to using EBP and finding ways of eliminating or minimizing those obstacles.

EBP is a fairly recent development in social work. The model for evidence-based practices first appeared in medicine during the early 1990s to help health professionals select the most efficacious and effective treatment methods. According to Chaffin and Friedrich (2004),

> EBP was born out of the recognition that many common health care and social services practices are based more on clinical lore and traditions than on scientific outcome research. Practice traditions sometimes even run counter to outcome research evidence. EBP strives to bring services more into line with the best-available clinical science and promote practices which have been demonstrated to be safe and effective. (p.1097)

In the mid-1990s, literature touting the use of EBP in the social sciences began to appear and the movement to adopt this approach has quickly gained momentum.

In the simplest of terms, EBP is defined as "…the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual [clients]" (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000, p. 2). While this definition focuses on micro-level services, some authors have also applied EBP to mezzo- and macro-level practice (McNeese & Thyer, 2004). Regardless of the level at which it is applied, EBP consists of five steps:

1. Translating practice problems/decisions into an answerable question;
2. Identifying the best available evidence to answer the question;
3. Critically evaluating the rigor and quality of the evidence and its applicability to the practice decision;
4. Appling the best available evidence to the practice decision; and
5. Evaluating the effectiveness and efficiency of the solution (Sackett et al., 2000).

Recent technological developments in electronic bibliographic databases, access to full-text online articles, indexing services, and reference management software now make it feasible to adopt EBP in most practice settings.

Engaging in EBP is more than simply following these five steps, however. It also requires that practitioners be willing to employ the best available research to guide practice decisions, abandon interventions that are found to be ineffective or less effective than alternative approaches, and accept a scientific approach to practice. Fortunately, these values are also consistent with the Social Work Code of Ethics, requiring practitioners to "fully utilize evaluation and research evidence in their professional practice" (National Association of Social Workers, 1996, p.12), and with the academic accrediting standards from the Council on Social Work Education, mandating that all social worker students acquire the skills to critically assess research findings and incorporate the knowledge gained from research and evaluation into their practice.

Yet, despite the professional obligations and good intentions of social workers, few are actively engaged in EBP (Howard, McMillen, & Pollio, 2003; Kirk, 1999; Lehman, Goldman, Dixon, & Churchill, 2004; McNeese & Thyer, 2004; Rosen, 1994; Rosen, Proctor, Morrow-Howell, & Staudt, 1995). This raises two critical questions: Why aren't practitioners embracing EBP? and What can be done to promote the use of EBP in social work? The remainder of this paper addresses these questions.

## Why Aren't Practitioners Embracing Evidence-Based Practice?

Many proponents of EBP have offered hypotheses as to why social workers are not using EBP and have identified possible barriers to implementing this technology in practice settings. These barriers and hypotheses can be grouped into three categories (see Table 1). The first category deals with aspects of the EBP technology itself that make it difficult to implement, the second deals with characteristics of the users that frequently interfere with implementation, and the third category considers issues within the practice environment that hinder the use of EBP.

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**Table 1.**
**Barriers to Adopting Evidence-Based Practice**

**Technological Barriers**
1. Adequacy of procedural guidelines and training materials for EBP
2. Skills required to implement technology (e.g., database searching, knowledge of research and statistics)
3. Access to required resources (e.g., electronic databases, systematic reviews, and citation management software)

**User Barriers**
1. The congruity (fit) between the user and the technology
2. Users' sense of ownership in EBP
3. Personal costs and benefits

**Organizational Barriers**
1. Organizational supports
2. Time constraints

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## Technological Barriers

EBP is a technology that helps practitioners to identify and use the best available evidence in their practice decision making. *Technology* in this sense refers to the procedures and methods that are used in EBP. Characteristics of the technology itself can either facilitate or hamper implementation (Munson & Pelz, 1981). Before we ask *if* social workers are using EBP in their practice, it is important to first assess whether they *can* use it. That is, is the technology ready to be implemented in practice environments?

To determine whether EBP technology is ready for implementation in practice settings, we need to assess the extent to which (1) clear, proceduralized training materials, guidelines, and courses are available to help practitioners learn the EBP technology (Thomas, Bastien, Stuebe, Bronson, & Yaffe, 1987; Robinson, Bronson, & Blythe, 1988), (2) practitioners have the repertoire of requisite technical skills to fully implement EBP (Robinson et al., 1988), and (3) practitioners have access to the technical resources that are required to use EBP, such as access to electronic bibliographic databases, full-text online articles, indexing services, and reference management software.

*Availability of adequate training materials.* Courses and training materials on how to use EBP in social services are still scarce (Hawley & Weisz, 2002). Only recently have classes started to appear in the curricula of social work programs (Gibbs, 2005; Howard, McMillen, & Pollio, 2003) that give students hands-on experience with using EBP. Textbooks are also beginning to appear (Gibbs, 2003) and recently a procedural guide was prepared on how to access social care research in the electronic databases (Macwilliam, Maggs, Caldwell, & Tiernery, 2003). Len Gibbs (2005), who has written extensively on this topic and teaches courses on evidence-based practice for social workers, observed that, "[p]resently, every research methods text in social work is woefully outdated. Amazingly, these texts do not include content regarding basic skills for translating research into practice (e.g., posing well-built practice questions, methodological filters, critical appraisal skills specific to different types of evidence, and databases specific to question types). These texts have essentially not yet adapted to the information revolution that will only increase in its potential as an aid to practice/research integration. Such skills need to be taught" (p. 10). Currently, the paucity of textbooks and other training materials on how to implement EBP is a significant barrier to using this technology in a practice setting. This situation is likely to change, however, as newer social work textbooks begin to include EBP content and schools add EBP to practice courses and continuing education offerings (Bilsker & Goldner, 2000). Written materials alone will not be enough, however. Training workshops, classes, and continuing education opportunities are also needed (Gotham, 2004).

*Developing the technical skills to use EBP.* The availability of courses, textbooks, and other training materials that focus on EBP will undoubtedly improve practitioners' abilities to engage in EBP. At a minimum, practitioners must know how to find relevant research and *apply* it to their practice (Gibbs, 2005). To do this, social workers need to be familiar with computers, know how to access Internet search engines and Web sites, and be able to conduct searches of electronic bibliographic databases to access systematic reviews of the research literature, such as those archived in the Web sites for the Cochrane Collaboration (http://www.cochrane.org/index0.htm) and the Campbell Collaboration (http://www.campbell collaboration.org/), the What Works Clearinghouse (http://

whatworks.ed.gov/), and other services that provide reviews of the best evidence available for various interventions. Without these fundamental skills, it is nearly impossible to use EBP to guide practice decisions.

There is some debate in the field as to whether practitioners should also have the ability to conduct a synthesis of the existing research. This can occur at two levels. The most comprehensive approach is a systematic review and meta-analysis of all research (published or not) on an intervention or practice problem. Completing a systematic review of the literature requires sophisticated knowledge of research methods and statistics to competently critique the quality of the identified research and to complete a meta-analysis of the research findings. This process can take months or years to complete depending on the extensiveness of the research. The skills and knowledge needed to conduct a systematic review are usually taught at the doctoral level.

A "quick but not dirty" version of a systematic review (rapid evidence assessment) has been proposed by Deaton (2005) as a more practice-friendly way of identifying and evaluating existing research for an intervention or practice problem. A rapid evidence assessment (REA) differs from a full systematic review by focusing on published research only and using fewer criteria on which to evaluate the rigor and quality of the research. And, unlike a full systematic review, rapid evidence assessments can generally be completed in less than six months.

*Access to technical resources needed for EBP.* Limited access to electronic bibliographic databases, full-text online articles, indexing services, and reference management software in practice settings is currently a major barrier to implementing EBP in many social service agencies. Gibbs (2005) acknowledged that "[s]tudents have access to bibliographic databases [at the university], but after they graduate they will not have access to them in their agencies. Therefore, they cannot apply EBP skills to answer questions in their agencies" (p. 10). Currently the cost of subscriptions to electronic bibliographic databases is prohibitive for most social service agencies and remains a significant barrier to the use of EBP in practice settings.

## User Barriers

The literature on implementing new technology often focuses on user characteristics associated with the adoption of new social technologies (Munson & Pelz, 1981). Some of the key factors in this area include (1) the congruity between the user's personal goals and philosophies and the technology, (2) the user's sense of "ownership" in the technology, and (3) the user's assessment of the personal costs and benefits associated with adopting the technology.

*Congruity between the user and the technology.* The congruity, or fit, between the user and the technology can encompass many things. For example, in EBP there is an inherent assumption that research-guided practice is superior to that which is guided by practice experience. To the extent that social workers accept this assumption, they will be more likely to embrace the EBP approach; those who believe that research is antithetical to practice will find EBP to be incongruous with one of their core values (Addis, 2002; Rosen, 2003). Although some have argued that social workers have an ethical obligation to engage in research-guided practice (Gambrill, 2003; Gibbs & Gambrill, 2002; McNeese & Thyer, 2004), this view is

not universal (Addis, Wade, & Hatgis, 1999; Carter, 2002). Other areas of incongruity that may exist include the following:

- Valuing "practice-based evidence" over evidence-based practice (Barkham & Mellor-Clark, 2003; Carter, 2002; Shaw & Shaw, 1997);
- Believing that research findings cannot generalize to the practice environment due to client dissimilarities, the changeable nature of practice (Carter, 2002), and the importance of the therapeutic relationship (Addis, Wade, & Hatgis, 1999; Levant, 2004; Wolfe, 1999);
- Thinking that proceduralized interventions are just a cookbook approach to practice and that they strip the practitioner of all creativity and flexibility (Gibbs & Gambrill, 2002; Carter, 2002); and
- Placing more value on flexibility and eclecticism than on following treatment manuals for empirically supported interventions (Carter, 2002).

Practitioners who adhere to any of these beliefs or values are less likely to adopt EBP.

*User's sense of "ownership."* The implementation literature is also filled with research showing that user participation in the design and development of an innovation leads to a greater sense of "ownership" and increased implementation. Although evidence-based practice methods were designed and developed in medicine, it may be possible to promote a sense of ownership for practitioners by involving workers in strategies to bring the technology into practice settings. The implementation literature is inconclusive as to when and how to involve users, but any participation in this process is better than trying to impose these methods on the practice community. Gibbs and Gambrill (2002) recently wrote an article countering many of the practice myths about EBP that reflect workers' perceptions that it is "an ivory tower concept" (p. 460), one that "ignores clinical expertise" (p. 459), and that "those who promote EBP simply adopt reverence for another authority: that of the researcher" (p. 469). Efforts like those of Gibbs and Gambrill to address misconceptions about EBP and to couch EBP in practice language are a first step toward addressing the practitioner concerns, but more efforts to foster a sense of relevance and ownership are needed to eliminate this barrier to widespread implementation.

*User costs and benefits.* The last user barrier to be discussed here focuses on the practitioner's perceived personal costs and benefits of using EBP in practice (Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004). The introduction of any new technology is often accompanied by some anxiety and stress associated with the effort needed to learn a new way of practicing (Munson & Pelz, 1981). Practitioners may also fear being held personally accountable if they use an intervention that is based on research evidence but is not successful for their client (Shaw & Shaw, 1997). Or, practitioners may feel that their value as an experienced social worker is depreciated by letting research guide clinical decisions rather than practice wisdom (Robinson, Bronson, & Blythe, 1988). The perceived costs together with the real costs of using EBP (e.g., time needed to search databases and learning new treatment methods) must be outweighed by the benefits of EBP (e.g., improved client outcomes, greater client satisfaction with services, or professional recognition) if EBP is to be adopted by practitioners.

**Organizational Barriers**

Lack of organizational support may be one of the most critical barriers facing EBP. "Professionals who wish to adopt a technology in an agency that does not support their effort are less likely to implement it, in large part because their costs are so much greater than those of a professional in an agency that supports that technology" (Robinson, Bronson, & Blythe, 1988, p. 294). Supports can be tangible (e.g., in-service training, onsite consultants, access to electronic bibliographic databases, and adequate computer facilities) or intangible (e.g., incorporating EBP into supervision or public recognition for using EBP). The tangible supports are obviously essential for implementation, but the intangible factors will, over time, ensure the sustainability of EBP.

Lastly, when practitioners are asked why they don't use EBP, the typical response is that "[b]usy practitioners [do] not have the time to follow the EBP process in an agency" (Gibbs, 2005). In today's practice environment, this is probably true. Although Gibbs (2005) argued that, with training, undergraduate students can locate relevant research for a practice problem in less than 30 minutes, most practitioners would find it impossible to devote this amount of time to each practice problem or client issue that they encounter. When completed systematic reviews are more readily available, practitioners will be able to access relevant information quite quickly, but for now, systematic reviews for many practice problems have not yet been undertaken. As a result, to use EBP, workers must spend time searching the electronic databases, retrieving relevant studies, reading and evaluating the research reports, and translating the information into directions for practice. Quite simply, practitioners do not have the time to do all this. Creative solutions are needed to eliminate this barrier.

## What Can Be Done to Promote the Use of EBP in Social Work?

The technological barriers impeding the use of EBP in social work will be the easiest to address. Ongoing advances in computer technology will undoubtedly enhance our ability to find and retrieve relevant research information. For example, advances in Internet speed, the availability of full-text online journals, and the development of sophisticated search engines, such as Google, will make it much easier for social workers with technological know-how to locate the relevant research information for evidence-based practice (Gibbs, 2005). Gaining access to the electronic bibliographic databases continues to be a barrier for those outside university systems, primarily due to the cost of subscriptions to these services. But, until subscription costs are reduced or eliminated, schools of social work can promote evidence-based practice in agencies by providing library privileges (including access to electronic databases) as part of collaborative research efforts, supports for student internships, alumni benefits, or through continuing education courses.

Training materials, textbooks, and courses on EBP are also becoming more prevalent. Step-by-step guidelines for how to efficiently search the electronic bibliographic databases are being developed (Bronson, 2005), textbooks that include content on evidence-based practice are available (Gibbs, 2005), and increasingly, social work programs are adding content on evidence-based practice to research and practice courses. Future graduates of social work programs are likely to know about evidence-based practice and to possess, at a minimum, the skills to locate completed systematic reviews and relevant research in the electronic databases.

When systematic reviews are not available, social workers will need more sophisticated skills to explore the electronic bibliographic databases and adequately assess the rigor and quality of the retrieved research. This will be far more time consuming and require advanced knowledge about research methods and statistics. Preparing all social workers to conduct this type of sophisticated systematic review is, at this time, probably unrealistic.

It is realistic, however, to develop a specialization within social work education that focuses on developing a small cohort of well-trained social workers with the skills to conduct sophisticated searches for research, undertake systematic reviews of the literature, and complete meta-analytic studies of various intervention strategies. These specially trained social workers will provide the information to practitioners and eliminate the need for all social workers to conduct their own searches for relevant research. This may offer a more efficient model for integrating EBP into social work.

In this model, evidence-based social work practice can be conceptualized according to three levels of activity, each requiring different levels of skill and knowledge (see Table 2).

Organizations that adopt evidence-based practice may find it useful to have an evidence-based retrieval specialist as part of the staff, or those with this training may serve as consultants to social service agencies. Finally, *systematic reviewers* will have the highest level of training (typically at the doctoral level) in literature retrieval, research methods, and statistics. In addition, they will know how to use meta-analytic statistics to prepare comprehensive, systematic reviews for distribution to the field through the Campbell Collaboration and similar organizations. This model reduces the time that direct service workers and administrators need to devote to collecting the "evidence" needed for evidence-based practice while still ensuring that they will have access to the best available research to guide their work.

Even if social workers have easy access to relevant research, their attitudes toward the scientific underpinnings of evidence-based practice may still present a formidable barrier to implementation. Training materials need to be developed that (1) help social workers recognize the relevance of EBP to practice, (2) describe the strengths and limitations of this method, and (3) show practitioners the importance of using evidence-based treatments. In addition, the philosophical fit between the practitioner and EBP is an important fac-

| Table 2. Types of Evidence-Based Social Work Practitioners | | |
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| | **Activities** | **Required Skills and Knowledge** |
| **Evidence-Based Practitioners** | - Seek out and use the best available research evidence to guide practice decisions | - Access research syntheses from the Internet<br>- Search electronic bibliographic databases for relevant research<br>- Have the ability to identify serious methodological problems with the published research |
| **Evidence-Based Retrieval Specialists** | - Develop advanced skills in searching electronic sources for research relevant to social work practice<br>- Prepare research summaries, identify promising practices, and disseminate results to practitioners | - Use advanced knowledge and skill in electronic search strategies<br>- Develop skills to critically evaluate research methods, designs, and statistical procedures used in research reports |
| **Systematic Reviewers** | - Conduct meta-analyses on interventions and policies<br>- Disseminate research syntheses and analyses through the Campbell Collaboration and similar organizations | - Gain ability to search electronic databases and "gray" literature<br>- Develop skills to critically evaluate research methods, designs, and statistical procedures used in research reports<br>- Build knowledge of meta-analytic statistics |

*Evidence-based practitioners* are social workers with BSW or MSW degrees who use the best available research evidence to make practice decisions. They will need fundamental computer skills to access available research syntheses and bibliographic databases. And, they should have enough knowledge about research and statistics to identify any serious methodological flaws or issues of bias in the published research. *Evidence-based retrieval specialists* are social workers with MSW degrees, a specialization in evidence-based practice, and advanced skills in identifying and retrieving research from the electronic bibliographic databases and the Internet. Social workers with this level of training will be capable of conducting rapid evidence reviews of the research literature and preparing summaries of the research findings for direct service providers or policy makers.

tor in fostering implementation, but bringing about changes in these areas can be a difficult challenge (Munson & Pelz, 1981). Revising course content in social work education to include the concepts and methods of EBP is a first step. Additional efforts are needed to reach practitioners in the field through continuing education workshops and in-service training. The misconceptions of EBP can be challenged when necessary (Gibbs & Gambrill, 2002) and studies conducted to demonstrate the benefits of engaging in evidence-based practice.

Acceptance of EBP is likely to be slow and incremental, as it is for most other innovations. But technological advances, better education and training in EBP, and the increasing presence of evidence-based practice in social work organizations will all serve to infuse EBP into social work practice. Doing so may narrow the gap between research and practice in ways that were not possible before and thus insure that social work practitioners are using interventions based on the best available research in the field.

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