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## Teaching Evidence-Based Practice: Implications for Psychology

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A movement advocating the use of evidence-based practice (EBP) is increasingly influencing health care and the practice of psychology. Thus, teaching evidence-based practice in psychology (EBPP) is critical to the preparation of future health service psychologists. In this article, the authors address common myths associated with EBP, propose core components involved in teaching EBPP, and describe an example of how such training can be incorporated into a professional psychology education and training curriculum. © 2007 Wiley Periodicals, Inc. *J Clin Psychol* 63: 657–670, 2007.

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Why should we be concerned about teaching evidence-based practice in psychology? Although elements of evidence-based practice (EBP) can be found in both ancient Greek and Chinese medicine, the current emphasis can be traced to a group led by Gordon Guyatt of McMaster University (Evidence-Based Medicine Working Group, 1992). In addition, public policy has been influenced by reports from the Institute of Medicine that both decry the lack of scientific basis for many health care practices and promote evidence-based practice as a core competency for all health professions (Institute of Medicine

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[IOM], 2001; 2003). In our view, the emphasis on EBP in public policy will strengthen what has now been referred to as a movement in some professions, and a paradigm shift for others. Although there has been some debate as to the usefulness of EBP for psychology (cf., Beutler, 2004; Levant, 2004), a task force initiated by the American Psychological Association (APA) President Ron Levant (2005) worked to clearly articulate its meaning for our discipline in the provision of health care services, resulting in the APA Presidential Task Force on Evidence-based Practice (2006).

Evidence-based practice is based on the widely accepted definition of evidence-based medicine as articulated by Sackett, Straus, Richardson, Rosenberg, and Haynes (2000): "... the integration of best research evidence with clinical expertise and patient values" (p. 1). *Research evidence* refers to the most recent clinically relevant scientific knowledge, with special attention to issues of effectiveness, power, accuracy, and safety. *Patient values* include the beliefs, expectations, and concerns that patients bring to the clinical encounter. *Clinical expertise* refers to the ability to use clinical skills and experience to generate reliable diagnoses and make judgments about risks and benefits of potential treatments. In psychology, clinical expertise may be conceptualized as mastery of those competencies necessary for the practice of professional psychology, competencies that have been fundamental to the APA's accreditation process and the focus of many education and training conferences (see Kaslow et al., 2004, for a summary of the recent competencies conference).

Thus, teaching EBP requires attention to the integration of three basic components (research evidence, clinical expertise, and patient values), with great care taken to ensure that all three are viable components of practice. Education and training need to ensure that future practitioners are well schooled in the relevant scientific evidence (as well as competent to continuously update themselves), that trainees obtain sufficient supervised clinical experience to attain clinical expertise, and that they learn to assess and integrate patient values into practice. Importantly, there needs to be a focus on promoting the integration of these components throughout training.

Medical educators have provided in-depth advice as to the best ways to teach EBP for medical students and residents (cf., *Evidence-Based Medicine: How to Practice and Teach EBM* by Sackett et al., 2000) and other professions have addressed the importance of EBP as well, including nursing (Retsas, 2000), occupational therapy (McClusky & Cusick, 2002), pharmacy (Etminan, Wright, & Carlton, 1998), physical therapy (Turner & Whitfield, 1997), psychology (Chambless & Ollendick, 2001; Davison, 1998) and social work (Webb, 2002). However, there is a dearth of literature to guide the psychology education and training community as to the best methods for teaching what we have labeled as *EBPP* for evidence-based practice in psychology (See Walker & London, this issue).

In this article, we provide an overview of some potentially useful teaching methods for EBPP. The examination of epistemological and health policy issues associated with this movement is beyond the scope this work. Our comments are based on earlier work of two of this article's co-authors, Belar and Collins (2003) in conducting a workshop on teaching evidence-based behavioral medicine for the Society of Behavioral Medicine and work in implementing training within a clinical psychology doctoral program at Oklahoma State University. In general, our comments reflect views based on our own and others' experiences, and not on a body of scientific evidence regarding the teaching of EBPP, which at this time does not exist. We begin with an overview of misconceptions associated with EBPP, followed by the identification of some proposed core components in teaching EBPP and a description of specific methods presently used at Oklahoma State University.

## Teaching Evidence-Based Practice in Psychology: Common Myths

*Implications of Evidence-Based Practice in Psychology  
for Training Future Psychologists*

One effective method in teaching science is to address common myths. Given the number of myths regarding EBPP, we recommend that education in EBPP focus on these common misconceptions as early in the curriculum as possible.

*Myth #1. Teaching evidence-based practice in psychology can be accomplished by training students in the use of empirically supported treatments (ESTs).* Although inclusion of empirically supported treatments is required for APA accreditation, and training in the most frequently used ESTs is certainly recommended (Chambless & Ollendick, 2001), such training alone is insufficient for EBPP. In addition to a requirement for integration of best research evidence with clinical expertise and patient values, teaching EBPP requires an explicit focus on competencies for life-long learning and professional development. A hallmark of EBPP is learning to critically appraise *current* evidence and *integrate* that evidence within existing practice competencies. Thus, successful training in EBPP cannot be understood merely in terms of the number of ESTs mastered, as learning to provide new treatments will be necessary throughout one's career. Students need to develop competencies for identifying and learning new treatments as evidence evolves, and for integrating that knowledge with clinical expertise and patient values.

*Myth #2: Evidence-based practice in psychology focuses solely on knowledge gained from randomized clinical trials (RCTs).* Such is not the case. The emphasis in training in EBPP requires that students learn to identify the best evidence available. Practice then depends upon its integration with clinical expertise and patient values. The best choice for the patient sometimes depends on aspects unique to the clinical presentation rather than findings from RCTs. Although it is noted that randomized clinical trials provide the highest level of scientific evidence for certain questions, e.g., the efficacy of the treatment (McCabe, 2004), other methods might provide the best evidence for a specific clinical decision. Well-controlled single case studies may be the only source of evidence for treatment of disorders where randomized clinical trials have yet to be conducted. Students should be trained to appreciate the importance of randomized clinical trials, but to appraise evidence obtained from other research methods as well, and to understand how various methods contribute to our understanding of clinical phenomena.

*Myth #3. Evidence-based practice in psychology requires only process learning, with a focus on "just in time" knowledge.* Despite a focus on the critical appraisal process in training, and the realization that "just in time" knowledge is important in many clinical situations, EBPP also demands mastery of a core knowledge base. Clinicians must have broad knowledge of the science of behavior, the relationships between behavior and health, and mechanisms of behavior change. Education and training must include a special focus on biological, cognitive, affective, and cultural factors affecting health and health care delivery, as well as issues of diversity. This knowledge, which is foundational for all APA-accredited professional psychology programs, is essential to interpret clinical observations, to evaluate whether research results are appropriate to the current clinical situation, and to integrate research findings with clinical expertise and patient values.

*Myth #4. The extant scientific literature lacks clinical utility.* Barlow, Levitt, and Bufka (1999) have noted myths related to comorbidity and generalizability that affect

practitioners' views of the utility of extant scientific literature. For example, it has been suggested that RCTs do not provide sufficient generalization because the clients used in the clinical training are different from those typically seen in practice. This is often referred to as the "my patients are different" argument. However, as Barlow et al. (1999) point out, there are often more similarities than differences in clinically significant variables in RCTs. Further, recent evidence suggests that most clients in real-world settings who meet criteria for a diagnosis that has been included in one or more RCTs would have met inclusion criteria for that study (Stirman, DeRubeis, Crits-Christoph, & Brody, 2003). Furthermore, when real-world patients fail to meet inclusion criteria, the most common reason is insufficient severity or duration of symptoms, and not comorbidity or other complicating factors. Trainees need to have this information integrated into their education programs to ensure that they are able to make accurate appraisals about when they can safely generalize beyond the specific RCT of interest.

*Myth #5. Evidence-based practice in psychology is "cookbook" health care that ignores clinical experience and clinical judgment.* By definition, this is not accurate. Clinical experience is an integral component of clinical expertise which is, in turn, an integral component of EBPP. However, there is an emphasis on understanding the limitations of clinical experience just as there is an emphasis on understanding limitations of research findings. One could argue that because there are multiple components of EBPP (research evidence, clinical expertise, and patient values), one or more of these components might not be relevant for a specific case. However, EBPP is explicitly defined by the integration of all three components—a process for which there exists no cookbook. In addition, EBPP places as much of an emphasis on using knowledge from clinical experience to inform the scientific process as science informing practice. In this model, rather than science and practice being the endpoints of a continuum, they are intertwined in double-helix fashion, each providing a significant source of data, and each informing the other, much like the scientist–practitioner model in psychology education and training (Belar & Perry, 1992).

*Myth #6. Clinical expertise = clinical experience.* Clinical expertise and clinical experience are not equivalent. Although supervised clinical experience is required to develop clinical expertise, and ongoing clinical experience can serve to enhance it, clinical expertise is a far more complicated construct. It requires not only knowledge of current research, but skills in building therapeutic alliances, assessing and treating individual patients, monitoring patient progress, and clinical decision-making. There is a robust literature on judgment and decision-making that clinicians must learn to apply in their everyday work that requires a much higher order intellectual process (involving both cognition and affect) than the attainment of experience alone. The focus of supervised clinical training must be on this process, and not just "seeing cases" or following supervisor instructions.

Differentiating the core competencies associated with clinical expertise is not easy. For example, two individuals could both have 4 years of clinical experience as part of their graduate training. Individual A (more expertise) shows a developmental trajectory of greater ability in clinical decision making and is able to conceptualize at a progressively greater level for each year of training. Individual B, on the other hand, appears to have four one-year introductory experiences. That is, this individual shows limited developmental progression after 4 years. Although the individual has more experiences, there is minimal evidence of increased ability to conceptualize and apply skills to novel situations.

In summary, it is important to identify and address these myths early in training. It is critical that EBPP be a core value for students both at the beginning of training and throughout their professional development. In the next section, we will highlight several core components critical for teaching EBPP.

### Teaching Evidence-Based Practice in Psychology: Core Components

*Teaching EBPP requires helping trainees develop skills in data mining, including how to access various secondary sources and to appraise the information obtained critically.* It is important to distinguish between primary and secondary sources of information. Primary sources are the empirical studies and conceptual reviews that are the foundation of science. Secondary sources are those that provide summaries and synopses of primary source material. For some faculty, the heavy reliance on secondary sources may require attitude change because many faculty members have been trained to eschew secondary sources and to rely only on primary sources in synthesizing a literature (for further discussion, see Walker & London, this issue). Although an analysis of primary sources remains critical to scholarly research, the explosion in knowledge plus the time demands on the practitioner makes it impractical to conduct a review of the primary literature when information is needed immediately in the clinical situation. Moreover, if the faculty does not teach how to evaluate and utilize secondary resources, they have clearly failed to recognize this rapidly developing domain of scholarly research. Meta-analytic studies are increasingly more common, and there are now entire journals to support the dissemination of clinically relevant scientific knowledge (e.g., *Annual Review of Clinical Psychology*; *Clinical Psychology Review*, *Evidence-based Medicine*, *Evidence-based Nursing*, *Evidence-based Mental Health*).

Other efforts have focused upon increasing standardization in reports of published randomized controlled trials (Moher, Schulz, & Altman, 2001). Such efforts will improve interpretability, generalizability, and comparisons of primary sources. To facilitate the accumulation of knowledge, most journals have already adopted guidelines on reporting randomized trials. For example, in August 2003 *Health Psychology* adopted the Consolidated Standards of Reporting Trials (CONSORT guidelines) for its authors (Stone, 2003).

A core component in the teaching of EBPP is ensuring that trainees have expertise in using resources such as the Cochrane Library, the Agency for Health Care Research and Quality's evidence reviews, and the National Guideline Clearinghouse as well as discipline specific reviews (See the Appendix for a list of Web sites for these resources and other reference materials). Of equal importance to developing skills in accessing information is systematic training in how to evaluate the quality of evidence available. Trainees need to be aware of (a) what practice guidelines exist, and (b) the strength of the evidence that supports each guideline/recommendation. When recommendations are based on opinion, how those opinions were gathered must be evaluated as well. Articles on how to access, evaluate, and interpret the scientific literature in specific areas have been more common in medicine than in the psychology literature; this is an area in need of significantly more attention in psychology.

Evidence-based practice in psychology depends upon informatics—a core competency recommended for all health professions by the Institute of Medicine's Health Professions Education Summit (IOM, 2002). Sometimes informatics is mistakenly viewed as interacting with computers to obtain knowledge, but such behavior is not equivalent to the application of informatics to patient care as described above. It is noteworthy that the IOM has already identified a number of priority areas for the development of a national

information infrastructure for health care quality improvement efforts (IOM, 2003). Psychology trainees need to be aware of these efforts.

*Teaching EBPP requires that faculty models the integration of science and practice.* Trainees need to witness firsthand their supervisors' appreciation of levels of evidence (for further discussion, see Spring, this issue) and understanding of how such evidence is integrated into clinical decision making. Supervisors can facilitate student learning by "thinking aloud" during clinical decision making, rather than expecting trainees to accept the supervisor's judgment as evidence itself. Some teaching of EBPP can be done in the classroom; nonclinicians can also teach. However, given what we know about the processes of professional socialization, there must be role models for the appraisal and integration of evidence with clinical expertise and patient values so that scientific evidence is seen as a central, not separate, component of clinical practice.

*Teaching EBPP requires the development of evaluation methods that assess trainee ability to obtain, appraise, and apply facts to an individual patient situation.* The use of standardized patients is very common in medicine (Barrows, 1993; van der Vleuten & Swanson, 1990), but not so in other disciplines. In general, more attention needs to be paid to performance-based assessment in psychology so that competence in evidence-based practice can be adequately assessed at all career stages. The IOM Health Professions Education Summit (IOM, 2002) has recommended formal oversight groups to promote a more integrated approach to competency assurance across education, training, and credentialing processes in each profession.

Trainees also need systematic training in accurate self-assessment so that they can learn how to self-identify a need for correction and to most appropriately engage in the lifelong learning required in all health professions (e.g., Belar et al., 2001). Self-assessment is not a new process. Most learning involves some form of self-assessment (Boud, 1995) such as that found when an individual completes a term paper and contemplates how strong the arguments were. Likewise, closing a textbook and writing answers to expected questions is a form of self-assessment. In clinical training, self-assessment can take on many forms including self-review of therapy tapes, transcription of therapy sessions, and tracking one's own outcomes and comparing these to known base rates in their settings. Faculty modeling self-assessment of their own teaching and practice can facilitate a commitment to self-assessment.

*Teaching EBPP requires a shift in supervisor role away from that as primary source of information.* Berg (2000) points out that often the primary source of clinical advice is expert opinions. Thus, the trainee asks his or her supervisor a specific question and is typically provided a specific answer. However, if the same question is asked of a group of experts, these experts are likely to provide a range of answers rather than an answer based on the best available evidence. According to Berg, supervisors (experts) would better serve their trainees if rather than providing answers to clinical questions, they would teach students how to find the best evidence to answer the question. This requires a shift in where evidence is sought and how a trainee evaluates evidence provided. As noted previously, reviews of randomized controlled trials (such as the Cochrane Reviews), meta-analyses, and other integrative reviews are often more helpful than classic textbooks or individual research studies (Sackett et al., 2000). It is also noteworthy that this approach to clinical teaching may be discomfoting to some trainees, who would prefer to rely exclusively on the authority of the supervisor not to mention potential discomfort on the part of the supervisor. As in any clinical training, students need to learn to tolerate more ambiguity than is sometimes comfortable for them.



*Teaching EBPP requires program administrative support.* Given the challenges to obtain external funding and to increase clinical income, training facilities may not always obtain the administrative support required for teaching EBPP. The teaching of EBPP needs to be valued by the program, not just by individual faculty, as curriculum changes will be required that will need both financial and attitudinal support. In addition, there needs to be evidence gathered on the outcomes of these educational interventions, so that results can be integrated with educational practice to facilitate evidence-based education and training.

Although not all of these components may be in place in every training setting, it is important for programs to identify potential needs and to begin to enhance teaching of EBPP. In the next section, we will provide some examples of how these principles are being implemented at Oklahoma State University.

### Teaching Evidence-Based Practice in Psychology: One Program's Example

Obviously, there is no single or right way to teach EBPP, and we anticipate that ideas and strategies will continue to evolve over the coming decades. This section describes, for purposes of an example, the efforts of one program to integrate the teaching of EBPP into its curriculum. Two of the co-authors of this article (Frank L. Collins Jr. [FLC] and Thad R. Leffingwell [TRL]) are faculty affiliated with this program, the Clinical Psychology Doctoral Program at Oklahoma State University (OSU).

Over the last several years, EBPP has “infused” much of the OSU clinical psychology program. The program has been cognitive-behavioral and empirically oriented for a number of years, but only recently have emerging ideas from evidence-based medicine provided a useful framework and language for infusing and integrating EBP across the curriculum. Specifically, EBP has influenced training in two areas—courses and clinical supervision. Examples of integration in each are described below.

### *Evidence-Based Practice in Psychology and Courses*

Evidence-based practice in psychology has become substantially integrated into at least two core courses in the clinical psychology curriculum, PSYC 5193—Ethics and Professional Development (taught by FLC) and PSYC 6083—Principles of Behavior Therapy (taught by TRL). These two courses are taken early in the curriculum and provide students with different perspectives on EBPP.

*PSYC 5193—Ethics and Professional Development.* A major thrust of this course is commitment to the scientific bases of practice as an important ethical and professional issue. Evidence-based practice in regards to the use of valid and reliable measures in psychological assessment is explicitly stated in the APA Ethics Code [9.02(b)], although a similar statement regarding therapy practice was not included in the current version (APA, 2003). In this course, students are exposed to the definition and model of EBPP based upon Sackett, Rosenberg, Muir-Gray, Haynes, and Richardson (1996) and a variety of secondary source summaries of the literature (see the Appendix). Students practice using these sources through a course project that requires them to develop an EBPP report based upon a client they are currently treating, have recently treated, or have observed in treatment as part of their clinical practica experience. For this project, students are asked to (anonymously) describe the client's presenting problem and associated information (including comorbid diagnoses and demographic variables). Students also

provide a case conceptualization, treatment plan, and outcome data if available. Finally, students are asked to conduct a review of the scientific evidence for treatments specific to the client's presenting problem and provide an analysis of the fit of the evidence-based recommendations they uncover compared to the actual treatment plans and course of treatment for the specific case. Particular attention is paid to the methods used to access and analyze the treatment literature. To some extent, the methods used are more important to the evaluation of the student's professional development than the conclusions drawn from the review and evaluation of the evidence, although both are project components. The student is then required to discuss how the review of the evidence is linked to clinical expertise and patient values with an emphasis on the integration of these three components. This analysis encourages students to consider how to integrate clinical judgment and patient values and preferences with the available scientific evidence to justify a treatment plan.

*PSYC 6083—Principles of Behavior Therapy.* Integrating EBPP into a course in behavior therapy may appear logical given behavior therapy's long history of commitment to empirical methods as a source of knowledge and accountability. Evidence-based practice in psychology is an ever-present theme in this course, but the focus is more upon developing skills and competencies in evaluating research evidence than on the other two important components of EBPP, which are addressed elsewhere in the curriculum.

Students are provided an intensive opportunity to develop skills in evaluating research evidence through a major course project. For this project, teams of two or three students, in concert with the instructor, develop a 2 1/2 hour workshop on an empirically supported treatment for their peers. The collection of workshops is called the *Behavior Therapy Seminar Series* (Leffingwell, 2006). Each workshop is modeled after a beginner-level clinical workshop such as those found at national and regional professional conferences; it is meant to be an introduction to a treatment. The workshop includes three components: (a) a *theoretical and technical overview* in which the theoretical foundation, relevant scientific basis, and techniques typically included in the treatment are described; (b) an *empirical overview* in which the relevant efficacy and effectiveness data in the literature are summarized, including the strengths and weaknesses of the available literature; and (c) a few *clinical vignettes* in which students act out a few scenes depicting important or unique therapeutic skills or interventions included in the treatment.

In addition to developing and presenting the live workshop, the student teams are asked to create two supporting documents. The first is a *treatment fact sheet* that summarizes the nature and expected duration of the treatment, the scientific evidence in support of the treatment, and information regarding alternative evidence-based treatments. This document is written in jargon-free lay language and is intended for a client audience. This document may thus be useful as part of an informed consent process, and forces students to think about the treatment and the scientific literature from the perspective of the client.

The second supporting document is a *quick-scan table* that summarizes the relative strengths and weaknesses of available published studies of the treatment. This table uses "Consumer Reports"-style symbols to indicate relative quality of studies across the domains of design, method, sampling, therapist effects, measurement (dependent variables), and statistical analyses. The table also provides a brief summary of the findings of the study and an opportunity to include brief notes about each study. See Figure 1 for an example of a quick-scan summary table.

Creating the quick-scan summary and preparing the empirical overview portion of the workshop provides students with an intensive opportunity to review and scrutinize



**Panic Control Treatment (PCT)**  
Quick-scan table summarizing empirical findings.

Study	Design	Method	Sample	Therapist Effects	Dependent Variable	Analyses	Results	Comments
Craske, Maidenberg & Bystriksky (1995)	●	●	○	○	●	●	PCT resulted in less panic, greater proportion of improvement than NST	Study used unusual sample, investigated a brief version of PCT (4 sessions). Promising results, but flaws limit confidence without replication.
Hecker, Losee, Fritzler & Fink (1996)	●	●	●	●	●	●	No difference between self- or therapist-directed groups at post or follow-up	Randomized design, used treatment manual, clients had comorbid psychological and medical disorders, similar to clients who would be regularly seen
De Ruiter, Rijken, Garssen & Kraaijmaat (1989)	●	○	●	○	●	●	No difference between conditions, all efficacious	Randomized trial, looking at components of what is now PCT, some flaws limit confidence in results.
Salkovskis, Clark & Hackmann (1991)	●	●	●	●	○	○	Focal CT reduced catastrophic interpretations. Non-focal CT did not.	Study looked at (non) focal cognitive treatment. Focused solely on CT, no breathing retraining or interoceptive exposure.
Van Den Hout, Arntz & Hoekstra (1994)	●	○	●	○	○	○	CT had anti-panic effects, but exposure alone didn't. CT did not enhance exposure.	Study examined how Non-Specific CT and Specific CT affected exposure. Exposure was found to decrease agoraphobia, but not panic attacks. CT did not enhance exposure.
Beck, Shippherd & Zebb (1997)	●	●	●	●	●	●		

Figure 1. Quick-scan table for panic control treatment.

the literature regarding their treatment of choice. Of course, this skill is also developed in other coursework focused on research design and statistical methods, but those skills are supplemented in this course with a lecture on the various qualities of research studies. This particular project focuses upon randomized controlled trials (although it is acknowledged that other research is relevant as well). Students are provided with a coding scheme to rate quality across various domains, a method derived from an excellent article on treatment efficacy design (Borkovec, 1993). Students are given an opportunity to practice this coding scheme with feedback to enhance reliability, and then are asked to compare independent ratings of articles among themselves to reach consensus on the appropriate rating. Although this experience focuses student attention upon evaluating primary sources, students are also encouraged to seek and review secondary sources and to make those sources known to their audience. Therefore, students get an opportunity to develop skills and competencies in finding and using secondary sources as well as in creating a valuable secondary source themselves.

The Behavior Therapy Seminar Series is offered live only for student peers enrolled in the course. However, the workshops are digitally videotaped and archived on Compact Discs for use by other students and faculty in the program's training clinic who may be interested in the treatments included. In this way, the important role for psychologists as not only consumers of evidence, but as disseminators is emphasized and modeled. Recently, both state and national organizations have expressed interest in the archived models as potentially useful for the broader professional community, perhaps as a source of continuing education.

*Other courses.* As mentioned previously, the concepts and language of EBPP are emerging as useful tools to create consistency across the clinical psychology curriculum at OSU. Instructors for other courses including Systems of Psychotherapy, Clinical Research Design, Child Psychopathology and Treatment, and Personality and Cognitive Assessment, have expressed plans to incorporate EBPP language and models more explicitly into their courses, and to create learning experiences for developing the competencies necessary for future EBPP-oriented practitioners and clinical scientists.

### *Evidence-Based Practice in Psychology and Clinical Supervision*

Clinical supervision of practicum students provides a variety of opportunities to train in EBPP. The program structure at OSU includes both individual supervision of trainees with clinical caseloads and weekly team meetings with both didactic and group supervision components. The teams are vertically oriented, with each team including students at various stages of the training program. Students may be engaged in in-house practica in the department training clinic or off-campus practica at various settings. The program typically has four active teams with six to nine students on each team. The EBPP model is influencing supervision on all teams, and details are provided regarding how the model influences supervision for two of the practicum teams at Oklahoma State University.

*Individual supervision.* Not all clients present with problems for which there is an abundance of empirically supported treatments available. Clients sometimes present with problems related to personal growth, adjustment issues, and general problems-in-living for which treatment evidence is not well documented. In fact, the lack of evidence for the treatment of these types of problems has been identified as the biggest obstacle to generalizing research findings to clinical samples (Stirman et al., 2003). Barlow (2004) has

recently advocated for discriminating between *psychotherapy* (a relatively broad approach that may be appropriate for the problems described above) and *psychological treatment* (specific approaches with known efficacy for specific and reliably identifiable problems). For cases in which a psychological treatment model may be appropriate (e.g., primary Axis I disorders for which treatments may exist), supervisors in our program have moved away from instructing students what to do and handing them a manual, and moved toward helping students craft the clinical question, then probe the literature (beginning with secondary sources) for evidence, and then address how this information is integrated with clinical expertise and patient values.

Students are encouraged, however, not to overlook the abundance of research showing the effectiveness of nonspecific treatment factors for enhancing outcome in psychotherapy (cf., Weinberger, 1995, for a review). To this end, students are encouraged to gain skills related to what is often termed *common factors*. Specifically, students are taught to focus on the therapeutic relationship, expectations of success and failure, helping clients confront or face problems. Thus, cases with a focus on psychotherapy (for broad approaches without specific and reliably identified problems), incorporates the evidence supporting these nonspecific factors.

*Practicum team meetings.* Practicum team meetings are described to students as the place where “science and practice come together.” The explicit goal is to use scientific skills and resources to address real-life clinical questions. Activities include formal presentations of active cases and didactic discussions of clinically relevant topics of students choosing. Team meetings are often situations where the integration of clinical judgment/expertise and patient values/preferences with research evidence is modeled, and thus is a critical component to supervised clinical experience. In fact, team didactics often focus upon relevant themes including clinical judgment and decision-making (both strengths and weaknesses) and patient values in practice (e.g., cultural diversity, spirituality). Participation in the team is conceptualized as an opportunity to “fill in the blanks” between the classroom and practice, and to encourage and model an integration of the various didactic and experiential components of training.

For the past year, one of the co-authors (FLC) has been experimenting with live supervision during team meetings wherein clients are scheduled and therapy is observed by all the team members. One member of the team serves in the role as therapist; however, all members on the team are involved in the case. Thus, student therapists who are not actively the therapist for a specific client may serve other resource roles. During supervision, specific tasks not are split up among team members. One member may search for available treatment manuals, while another will do an in-depth literature search. This method is particularly helpful in integrating younger trainees into the system early and finding roles that are more appropriate for their level of training. Likewise, the student who serves as the therapist is in a position to consult with the whole team and to use both faculty and peer supervision to help conceptualize the case.

## Conclusions

The future of teaching EBPP depends upon developing the scholarship of teaching in professional education and training, an issue now prominent in the entire higher education community. We acknowledge that the teaching of EBPP has not yet been proven to affect health outcomes, clearly an important endpoint for this thrust. However, it seems clear that the demand for evidence-based practice is not going to diminish, as it is inextricably related to our society’s increased concerns about safety and accountability in our

health care system. We need not only to prepare our students to practice EBPP, but to facilitate the professional development required for many of our faculty to retool to do so.

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## Appendix

### *Resources for Evidence-Based Practice in Psychology*

Agency for Health Care Policy and Research—[www.ahrq.gov](http://www.ahrq.gov)

Cochrane Collaboration—[www.cochrane.org](http://www.cochrane.org)

National Guideline Clearinghouse—[www.guideline.gov/index.aspx](http://www.guideline.gov/index.aspx)

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Society of Behavioral Medicine Committee on Evidence-Based Behavioral Medicine—[www.sbm.org/ebbm/index](http://www.sbm.org/ebbm/index)

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