PART

I

Overview of Evidence-Based Practice

CHAPTER

1

Introduction to Evidence-Based Practice

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You've started reading a book about research so you must have some free time. But aren't there other things you could do right now that are less onerous than reading about research? You could dust your office. You could make that overdue visit to your dentist. Or maybe listen to a Barry Manilow CD. Okay, okay, not Barry Manilow! But read about research? What compelled you to do that?

Actually, that's a rhetorical question because I think I know the answer, and I'm just trying to connect with you. Start where the reader (i.e., the client) is at, as it were—sort of like building a therapeutic alliance. My hunch is that you're reading this book because there is significant pressure these days on practitioners to engage in **evidence-based practice (EBP),** which implies (in part) using research findings to guide their practice decisions. If you are like most of the practitioners I know, you probably resent that pressure. But it's a reality you must deal with, and perhaps by reading this book you'll be better prepared to deal with it on your terms. That is, by learning more about how to utilize and appraise EBP research, you'll be better equipped to understand, question, or negotiate with others—like managed care companies and other funders—who cite EBP as the reason they think they know better than you do what you should do in your practice.

Although the term *evidence-based practice* has become fashionable only recently, the main ideas behind it are really quite old. As early as 1917, for example, in her classic text on social casework, Mary Richmond discussed the use of research-generated facts to guide the provision of direct clinical services as well as social reform efforts.

Also quite old is the skepticism implicit in EBP about the notion that your practice experience and expertise—that is, your practice wisdom—are a sufficient foundation for effective practice. That skepticism does not imply that your practice experience and expertise are irrelevant and unnecessary—just that they *alone* are not enough.

Perhaps you don't share that skepticism. In fact, it's understandable if you even resent it. Many decades ago, when I first began learning about clinical practice, I was taught that to be an effective practitioner I had to believe in my own effectiveness as well as the effectiveness of the interventions I employed. Chances are that you have learned this, too, either in your training or through your own practice experience. It stands to reason that clients will react differently depending on whether they are being served by practitioners who are skeptical about the effectiveness of the interventions they provide versus practitioners who believe in the effectiveness of the interventions and are enthusiastic about them.

But it's hard to maintain optimism about your effectiveness if influential sources—like research-oriented scholars or managed care companies—express skepticism about the services you provide. I first encountered such skepticism long ago when my professors discussed a notorious research study by Eysenck (1952), which concluded that psychotherapy was not effective (at least not in those days). Although I later

encountered various critiques of Eysenck's analysis that supported the effectiveness of psychotherapy, maintaining optimism was not easy in the face of various subsequent research reviews that shared Eysenck's conclusions about different forms of human services (Fischer, 1973; Mullen & Dumpson, 1972). Those reviews in part helped usher in what was then called an *age of accountability*—a precursor of the current EBP era.

The main idea behind this so-called *age* was the need to evaluate the effectiveness of all human services. It was believed that doing so would help the public learn "what bang it was getting for its buck" and in turn lead to discontinued funding for ineffective programs and continued funding for effective ones. Thus, this era was also known as the *program evaluation movement*. It eventually became apparent, however, that many of the ensuing evaluations lacked credibility due to fatal flaws in their research designs and methods—flaws that often stemmed from biases connected to the vested interests of program stakeholders. Nevertheless, many scientifically rigorous evaluations were conducted, and many had encouraging results supporting the effectiveness of certain types of interventions.

In addition to studies supporting the effectiveness of particular intervention modalities, perhaps most encouraging to clinicians were studies that found that one of the most important factors influencing service effectiveness is the quality of the practitioner–client relationship. Some studies even concluded that the quality of practitioners' clinical relationship skills has more influence on treatment outcome than the choices practitioners make about what particular interventions to employ. Although that conclusion continues to be debated, as the 21st century dawned, mounting scientific evidence showed that practitioner effectiveness is influenced by both the type of intervention employed and relationship factors (Nathan, 2004).

EMERGENCE OF EVIDENCE-BASED PRACTICE

The accumulation of scientifically rigorous studies showing that some interventions appear to be more effective than others helped spawn the EBP movement. In simple terms, the EBP movement encourages and expects practitioners to make practice decisions—especially about the interventions they provide—in light of the best scientific evidence available. In other words, practitioners might be expected to provide interventions whose effectiveness has been most supported by rigorous research and to eschew interventions that lack such support—even if it means dropping favored interventions with which they have the most experience and skills.

In the preceding paragraph, I used the words *in light of* the best scientific evidence, instead of implying that the decisions had to be dictated by that evidence. That distinction is noteworthy because some mistakenly view EBP in an overly simplistic cookbook fashion that seems to disregard practitioner expertise and practitioner

understanding of client values and preferences. For example, EBP is commonly misconstrued to be a cost-cutting tool used by third-party payers that uses a rigid decision-tree approach to making intervention choices irrespective of practitioner judgment. Perhaps you have encountered that view of EBP in your own practice when dealing with managed care companies that have rigid rules about what interventions you must employ as well as the maximum number of sessions that will be reimbursed. If so, you might fervently resent the EBP concept, and who could blame you! Many practitioners share that resentment.

Managed care companies that interpret EBP in such overly simplistic terms can pressure you to do things that your professional expertise leads you to believe are not in your clients' best interests. Moreover, in a seeming disregard for the scientific evidence about the importance of relationship factors, managed care companies can foster self-doubt about your own practice effectiveness when you do not mechanically provide the interventions on their list of what they might call "evidence-based practices." Such doubt can hinder your belief in what you are doing and in turn hinder the more generic relationship factors that can influence client progress as much as the interventions you employ. Another problem with the list approach is its potential to stifle innovations in practice. Limiting interventions to an approved list means that novel practices are less likely to be developed and tested in the field. As you read on, you will find that EBP is a much more expansive and nuanced process than simply choosing an intervention from a list of anointed programs and services.

DEFINING EVIDENCE-BASED PRACTICE

The foregoing, overly simplistic view of EBP probably emanated from the way it was defined originally in medicine in the 1980s (Barber, 2008; Rosenthal, 2006). Unfortunately, this list or cookbook approach to EBP has likely stuck around because this seems like a straightforward approach to making good practice decisions. It's much simpler for funders and others to implement and monitor whether practitioners are using an approved intervention than it is to implement and monitor the EBP process. For example, a recent study found that mental health authorities in six states have mandated the use of specific children's mental health interventions (Cooper & Aratani, 2009).

Fortunately, the revised definition of EBP now prominent in the professional medical literature (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000) as well as the human service professions literature (Rubin & Babbie, 2011) incorporates practitioner expertise and judgment as well as client values and preferences. The more current and widely accepted definition shows that managed care companies or other influential sources are distorting EBP when they define it as merely a list of what intervention to use automatically for what diagnosis or problem, regardless of your

professional expertise and special understanding of idiosyncratic client characteristics and circumstances.

The current and more comprehensive definition of EBP—one that is more consistent with definitions that are prominent in the current human service professions literature—views EBP as a *process*, as follows: EBP is a process for making practice decisions in which practitioners integrate the best research evidence available with their practice expertise and with client attributes, values, preferences, and circumstances.

In this process, practitioners locate and appraise credible evidence as an essential part, but not only basis, for practice decisions. The evidence does not dictate the practice. Practitioner expertise such as knowledge of the local service context, agency capacity, and available resources, as well as experience with the communities and populations served, must be considered. In addition, clients are integral parts of the decision-making process in collaboration with the practitioner. It's hard to imagine an intervention that would work if the client refuses to participate!

Moreover, although these decisions often pertain to choosing interventions and how to provide them, they also pertain to practice questions that do not directly address interventions. Practitioners might want to seek evidence to answer many other types of practice questions, as well. For example, they might seek evidence about client needs, what measures to use in assessment and diagnosis, when inpatient treatment or discharge is appropriate, understanding cultural influences on clients, determining whether a child should be placed in foster care, and so on. In that connection, there are six broad categories of EBP questions, as follows:

1. What factors best predict desirable or undesirable outcomes?
2. What can I learn about clients, service delivery, and targets of intervention from the experiences of others?
3. What assessment tool should be used?
4. What intervention, program, or policy has the best effects?
5. What are the costs of interventions, policies, and tools?
6. What are the potential harmful effects of interventions, policies, and tools?

TYPES OF EBP QUESTIONS

Let's now examine each of the preceding six types of questions. We'll be returning to these questions throughout this book.

What Factors Best Predict Desirable or Undesirable Outcomes?

Suppose you work in a Big Brother/Big Sister agency and are concerned about the high rate of mentor–youth matches that end prematurely. A helpful study might analyze case-record data in a large sample of Big Brother/Big Sister agencies and assess the

relationships between duration of mentor–youth match and the following mentor characteristics: age, ethnicity, socioeconomic status, family obligations, residential mobility, reasons for volunteering, benefits expected from volunteering, amount and type of volunteer orientation received, and so on. Knowing which factors are most strongly related to the duration of a match (whether long or short) can guide your decisions about how to improve the duration of matches. For example, suppose you find that when taking into consideration lots of different factors, the longest matches are those in which the youth and mentor are of the same ethnicity. Based on what you learn, you may decide more volunteers who share the same ethnicity as the youth being served are needed, efforts to match existing volunteers and youth based on ethnicity should be implemented, or (evidence-based) training on cross-cultural mentoring should be provided to mentors.

Suppose you are a child welfare administrator or caseworker and want to minimize the odds of unsuccessful foster-care placements, such as placements that are short-lived, that subject children to further abuse, or that exacerbate their attachment problems; your EBP question might be: "What factors best distinguish between successful and unsuccessful foster-care placements?" The type of research evidence you would seek to answer your question (and thus guide practice decisions about placing children in foster care) likely would come from case-control studies and other forms of correlational studies that will be discussed in Chapter 9 of this book.

A child welfare administrator might also be concerned about the high rate of turnover among direct-service practitioners in her agency and thus might pose the following EBP question: "What factors best predict turnover among child welfare direct-care providers?" For example, is it best to hire providers who have completed specialized training programs in child welfare or taken electives in it? Or will such employees have such idealistic expectations that they will be more likely to experience burnout and turnover when they experience the disparity between their ideals and service realities of the bureaucracy? Quite a few studies have been done addressing these questions, and as an evidence-based practitioner, you would want to know about them.

What Can I Learn About Clients, Service Delivery, and Targets of Intervention From the Experiences of Others?

If you administer a shelter for homeless people, you might want to find out why so many homeless people refuse to use shelter services. Perhaps your EBP question would be: What is it like to stay in a shelter? Perhaps you've noticed that among those who do use your shelter there are almost no females. Your EBP question might therefore be modified as follows: What is it like for females to stay in a shelter? To answer that question, you might read various qualitative studies that employed in-depth, open-ended interviews of homeless people that include questions about shelter utilization. Equally

valuable might be qualitative studies in which researchers themselves lived on the streets among the homeless for a while as a way to observe and experience the plight of being homeless, what it's like to sleep in a shelter, and the meanings shelters have to homeless people.

Direct-service practitioners, too, might have EBP questions about their clients' experiences. As mentioned previously, one of the most important factors influencing service effectiveness is the quality of the practitioner–client relationship, and that factor might have more influence on treatment outcome than the choices practitioners make about what particular interventions to employ. We also know that one of the most important aspects of a practitioner's relationship skills is empathy. It seems reasonable to suppose that the better the practitioner's understanding of what it's like to have had the client's experiences—what it's like to have walked in the client's shoes, so to speak—the more empathy the practitioner is likely to convey in relating to the client.

The experiences of others, not just clients, may also drive your EBP questions. For example, imagine that you are an administrator of a child and family program and you are considering choosing and adopting a new parent-training model. Selecting and implementing a new intervention model is a complex process with lots of moving parts and potentially unforeseen consequences. In this case your EBP question may be: "What is the adoption and implementation process like for different parent-training programs?" Studies that include interviews with administrators and staff about their experience with the implementation process in their agencies could give you information on which model to choose, alert you to unanticipated challenges with the intervention and implementation process, and suggest strategies that you might choose to try and improve your success.

What Assessment Tool Should Be Used?

Practitioners often must select an assessment tool in their practice. Many times it is for the purpose of diagnosing clients or assessing their chances of achieving a goal or their level of risk regarding an undesirable outcome. Other purposes might be to survey community residents as to their service needs, to survey agency clients regarding their satisfaction with services, or to monitor client progress during treatment. Thus, another type of EBP question pertains to selecting the assessment tool that is the best fit for their practice setting and clientele.

Common questions to ask in selecting the best assessment instrument are:

- Is the instrument *reliable?* An instrument is reliable to the extent that it yields consistent information. If you ask an 8-year-old boy if his parent is overly protective of him, he may answer "yes" one week and "no" the next—not because

his parent changed, but because he has no idea what the term *overly protective* means and therefore is just giving a haphazard answer because he feels he has to give some answer. If you get different answers from the same client to the same question at roughly the same point in time, it probably means there is something wrong with the question. Likewise, if an instrument's total score indicates severe depression on October 7 and mild depression on October 14, chances are the instrument as a whole is unreliable.

- Is the instrument *valid?* An instrument is valid if it really measures what it is intended to measure. If youth who smoke marijuana every day consistently deny doing so on a particular instrument, then the instrument is not a valid measure of marijuana use. (Note that the instrument would be reliable because the answers, though untrue, would be consistent. Reliability is necessary, but it is not a sufficient condition for validity.)
- Is the instrument *sensitive* to relatively small but important changes? If you are monitoring client changes every week during a 10-week treatment period, an instrument that asks about the frequency of behaviors during the past 6 months won't be sensitive to the changes you hope to detect. Likewise, if you are treating a girl with extremely low self-esteem, meaningful improvement can occur without her achieving high self-esteem. An instrument that can only distinguish between youth with high, medium, and low self-esteem might not be sufficiently sensitive to detect changes as your client moves from extremely low self-esteem to a better level of low self-esteem.
- Is the instrument *feasible?* If you are monitoring a child's progress from week to week regarding behavioral and emotional problems, a 100-item checklist probably will be too lengthy. Parents and teachers may not want to take the time to complete it every week, and if you are asking the child to complete it during office visits, there go your 45 minutes. If your clients can't read, then a written self-report scale won't work.
- Is the instrument *culturally sensitive?* The issue of an instrument's cultural sensitivity overlaps with the issue of feasibility. If your written self-report scale is in English, but your clients are recent immigrants who don't speak English, the scale will be culturally insensitive and unfeasible for you to use. But cultural insensitivity can be a problem even if your scale is translated into another language. Something might go awry in the translation. Even if the translation is fine, certain phrases may mean different things in different cultures. Ask me if I feel blue, and I'll know you are asking if I'm in a sad mood. Translate that question into Spanish and then ask a non-English-speaking person who just crossed the border from Mexico, "Esta azule"?, and you almost certainly will get a very strange look. Cultural sensitivity also overlaps with reliability and validity.

> If the client doesn't understand your language, you might get a different answer every time you ask the same question. If clients think you are asking whether they are blue (skin color, perhaps), they'll almost certainly say no even if they are in a very sad mood and willing to admit it.

Many studies can be found that assess the reliability and validity of various assessment tools. Some also assess sensitivity. Although there are fewer studies that measure cultural sensitivity, the number is growing in response to the current increased emphasis on cultural competence and diversity in the human services professions.

What Intervention, Program, or Policy Has the Best Effects?

Perhaps the most commonly posed type of EBP question pertains to selecting the most effective intervention, program, or policy. As noted previously, some managed care companies or government agencies define EBP narrowly and focus only on this question. They will call your practice *evidence based* only if you are providing a specific intervention that appears on their list of preferred interventions, whose effectiveness has been supported by a sufficient number of rigorous experimental outcome evaluations to merit their "seal of approval" as an evidence-based intervention. As noted earlier, this definition incorrectly fails to allow for the incorporation of practitioner expertise and patient values. The EBP process, however, allows practitioners to choose a different intervention if the "approved" one appears to be contraindicated in light of client idiosyncrasies or the realities of the practice context.

The process definition of EBP is more consistent with the scientific method, which holds that all knowledge is provisional and subject to refutation. In science, knowledge is constantly evolving. Indeed, at any moment a new study might appear that debunks current perceptions that a particular intervention has the best empirical support. For example, new studies may test interventions that were previously untested and therefore of unknown efficacy or demonstrate unintended side effects or consequences that reduce the attractiveness of existing "evidence-based" interventions when disseminated more broadly in different communities. Sometimes the published evidence can be contradictory or unclear. Rather than feel compelled to adhere to a list of approved interventions that predates such new studies, practitioners should be free to engage in an EBP *process* that enables them to critically appraise and be guided by existing and *emerging* scientific evidence. Based on practitioner expertise and client characteristics, practitioners engaging in the EBP process may choose to implement an intervention that has a promising yet less rigorous evidence base. Whether or not the chosen intervention has a great deal of evidence supporting its use, practitioners must assess whether any chosen intervention works for each individual client. Even the most effective treatments will not work for everyone. Sometimes the

first-choice intervention option doesn't work, and a second or even third approach (which may have less research evidence) is needed.

Thus, when the EBP question pertains to decisions about what intervention program or policy to provide, practitioners will attempt to maximize the likelihood that their clients will receive the best intervention possible in light of the following:

- The most rigorous scientific evidence available.
- Practitioner expertise.
- Client attributes, values, preferences, and circumstances.
- Assessing for each case whether the chosen intervention is achieving the desired outcome.
- If the intervention is not achieving the desired outcome, repeating the process of choosing and evaluating alternative interventions.

Figure 1.1 shows the original EBP model, illustrating the integration of current best evidence, practitioner expertise, and client values and expectations. Unlike misconceptions of EBP that characterize it as requiring practitioners to mechanically apply interventions that have the best research evidence, Figure 1.1 shows EBP residing in the shaded area, where practice decisions are made based on the intersection of the best evidence, practitioner expertise, and client values and expectations. In discussing this diagram, Shlonsky and Gibbs (2004) observe:

> None of the three core elements can stand alone; they work in concert by using practitioner skills to develop a client-sensitive case plan that utilizes interventions with a history of effectiveness. In the absence of relevant evidence, the other two elements are weighted more heavily, whereas in the presence of overwhelming evidence the best-evidence component might be weighted more heavily. (p. 138)

Figure 1.2 represents a newer, more sophisticated diagram of the EBP model (Haynes, Devereaux, & Guyatt, 2002). In this diagram, practitioner expertise is shown not to exist as a separate entity. Instead, it is based on and combines knowledge of the client's clinical state and circumstances, the client's preferences and actions, and the research evidence applicable to the client. As in the original model, the practitioner skillfully blends all of the elements at the intersection of all the circles, and practice decisions are made in collaboration with the client based on that intersection.

Figure 1.3 is a multidisciplinary iteration of the three-circle model called the Transdisciplinary Model of EBP. This model was developed in a collaborative effort across allied health disciplines, including social work, psychology, medicine, nursing, public health (Satterfield et al., 2009). Figure 1.3 retains elements of earlier EBP models;

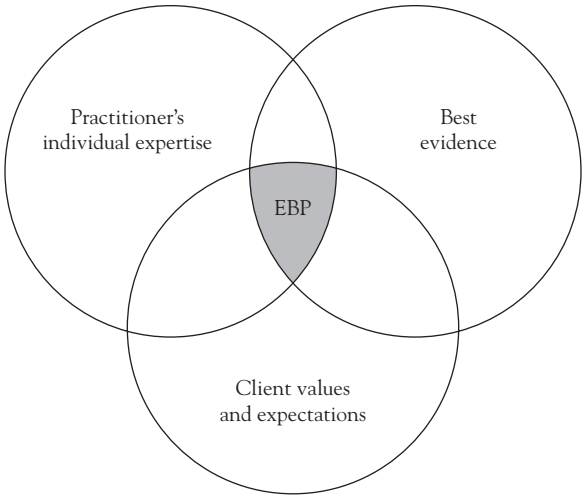

Figure 1.1 Original EBP Model

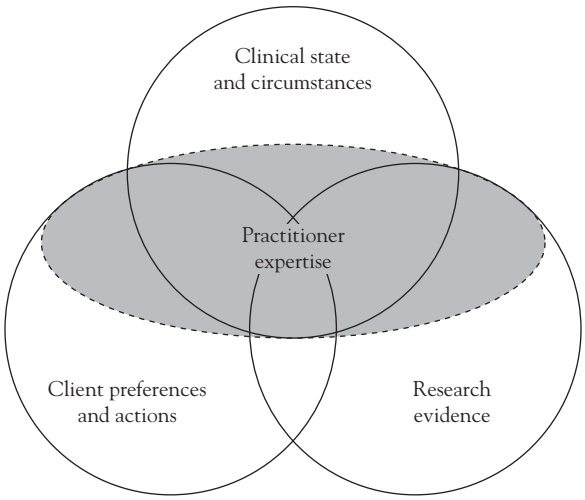

Figure 1.2 Newer EBP Model

Source: From "Physicians' and Patients' Choice in Evidence-Based Practice," by R. Haynes, P. Devereaux, and G. Guyatt, 2002, *British Medical Journal, 324*, p. 1350. Reprinted with permission.

however, it also includes several changes that reflect the perspectives of the varied disciplines and practice contexts within which the EBP process is used. Practice decision making is placed at the center, rather than practitioner expertise, recognizing that decision making is a collaboration that could involve a team of practitioners as well as clients, whereby an individual practitioner's skills and knowledge inform but do not wholly describe the central decision-making process. Practitioner expertise is instead moved to one of the three circles and is conceptualized as resources. These resources include

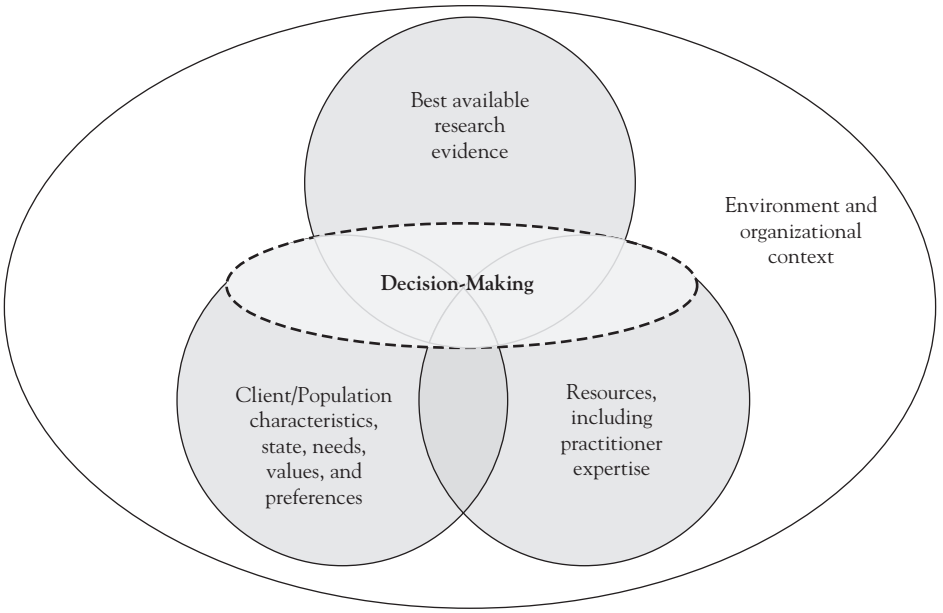

Figure 1.3 The Transdisciplinary Model of Evidence-Based Practice
Source: From "Toward a Transdisciplinary Model of Evidence-Based Practice," by J. Satterfield, B. Spring, R. C. Brownson, E. Mullen, R. Newhouse, B. Walker, and E. Whitlock, 2009, *Milbank Quarterly, 87*(2), pp. 368–390. Reprinted with permission of John Wiley & Sons, Inc.

competence in executing interventions, conducting assessments, facilitating communication, and engaging in collaboration with clients and colleagues. Client-related factors, including characteristics, state, need, and preferences, are combined into one circle. The concept of a "client" is explicitly expanded to highlight communities in order to reflect the multiple levels of practice—from micro to macro levels and from individuals to large groups and systems—as reflected in the multiple disciplines. Finally, an additional circle is added to the outside of the interlocking circles to represent the context within which services are delivered in recognition of how the environment can impact the feasibility, acceptability, fidelity, and adaptation of practices in context.

The cyclical process of EBP can be conceptualized as involving the following five steps: (1) question formulation, (2) searching for the best evidence to answer the question, (3) critically appraising the evidence, (4) selecting an intervention based on a critical appraisal of the evidence and integrating that appraisal with practitioner expertise and awareness of the client's preferences and clinical state and circumstances, and (5) monitoring client progress. Depending on the outcome observed in the fifth step, the cycle may need to go back to an earlier step to seek an intervention that might work better for the particular client, perhaps one that has less evidence to support it but which might nevertheless prove to be more effective for the particular client in light of the client's needs, strengths, values, and circumstances. Chapter 2 examines each of these five steps in more detail.

What Are the Costs of Interventions, Policies, and Tools?

When asking what approach has the *best* effects, we implicitly acknowledge that for some target problems there is more than one effective approach. For example, the recently published book, *Programs and Interventions for Maltreated Children and Families* (Rubin, 2012) contains 20 chapters on 20 different approaches whose effectiveness with maltreated children and their families has been empirically supported. Some of these programs and interventions are more costly than others. Varying costs are connected to factors such as the minimum degree level and amount of experience required in staffing, the extent and costs of practitioner training, caseload maximums, amount number of treatment sessions required, materials and equipment, and so on. The child welfare field is not the only one where more than one empirically supported approach can be found. And it is not the only one in which agency administrators or direct service practitioners are apt to deem some of these approaches to be unaffordable. An important part of practitioner expertise includes knowledge about the resources available to you in your practice context. Consequently, when searching for and finding programs or interventions that have the best effects, you should also ask about their costs. You may not be able to afford the approach with the best effects, and may have to settle for one with less extensive or less conclusive empirical support.

But affordability is not the only issue when asking about costs. Another pertains to the ratio of costs to benefits. For example, imagine that you were to find two empirically supported programs for reducing dropout rates in schools with high dropout rates. Suppose that providing the program with the best empirical support—let's call it Program A—costs $200,000 per school and that it is likely to reduce the number of dropouts per school by 100. That comes to $2,000 per reduced dropout. In contrast, suppose that providing the program with the second best empirical support—let's call it Program B—costs $50,000 per school and that it is likely to reduce the number of dropouts per school by 50. That comes to $1,000 per reduced dropout—half the cost per dropout than Program A.

Next, suppose that you administer the dropout prevention effort for an entire school district, and that your total budget for dropout prevention programming is $1 million. If you choose to adopt Program A, you will be able to provide it in five schools (because 5 times 200,000 is one million). Thus, you would be likely to reduce the number of dropouts by 500 (that is, 100 in each of 5 schools). In contrast, if you choose to adopt Program B, you will be able to provide it in 20 schools (because 20 times 50,000 is one million). Thus, you would be likely to reduce the number of dropouts by 1,000 (that is, 50 in each of 20 schools). Opting for Program B instead of Program A, therefore, would double the number of dropouts prevented district wide from 500 to 1,000. But does that imply that opting for Program B is the best choice? Not necessarily. It depends in part on just how wide the gap is between the strength of

evidence supporting each approach. If you deem the evidence supporting Program B to be quite skimpy and unconvincing despite the fact that it has the second best level of empirical support, while deeming the evidence supporting Program A to be quite strong and conclusive, you might opt to go with the more costly option (Program A) that is likely to prevent fewer dropouts, but which you are more convinced will deliver on that promise in light of its far superior empirical support.

Depending on such factors as your budget and your assessment of the quality and amount of empirical support each approach has, in some situations you might opt for a less costly program with less empirical support, whereas in other situations you might opt for a more costly program with better empirical support. It's likely to be a judgment call. The important point is to remember to consider the costs and likely benefits of each approach in light of what you can afford, instead of asking about the best effects, only, or the degree of empirical support, only.

What About Potential Harmful Effects?

In addition to cost considerations, as you search for the approach with the best effects you should also bear in mind the possibility of harmful effects. There are two reasons for this. One reason is that some programs and interventions that were once widely embraced by the helping profession were found to be not only ineffective but actually harmful. Examples include Scared Straight programs; critical incidents stress debriefing; psychodynamic, in-depth insight-oriented psychotherapy for schizophrenia; and treating dysfunctional family dynamics as the cause of schizophrenia. (For a discussion of these approaches, see Rubin, 2012; and Rubin & Babbie, 2011.)

Some approaches that are effective overall can be harmful—or contraindicated—for certain types of clients. For example, consider two empirically supported treatment approaches for posttraumatic stress disorder (PTSD). When I was trained in one of these treatment approaches—eye movement desensitization and reprocessing (EMDR)—in the early 1990s, I (along with the other trainees) was cautioned to check for whether the client had a dissociative order or physical eye ailments before providing it because it could be harmful for such clients.[1] The other empirically supported treatment approach—prolonged exposure therapy—can have unintended harmful effects for people whose PTSD is comorbid with suicidality or substance abuse, in that recalling and retelling in minute detail their traumatic events before their substance abuse or suicide risk is resolved can exacerbate both of those conditions (Courtois & Ford, 2009; Rubin & Springer, 2009). Even if a client doesn't have any characteristics that put them at risk for harm from interventions, every client is different. In some cases,

[1] Whenever the first person singular (I) is used in this book, it is in reference to the lead author, Allen Rubin, who was the sole author of the book's first edition.

clients may experience an intervention negatively or may have a mix of both positive and negative outcomes—even if research suggests that the intervention on the whole works well for many people. The need to consider such harmful effects pertains to the aspect of EBP discussed earlier in this chapter—regarding the importance of integrating the best research evidence with your practice expertise and knowledge of client attributes, including the assessment intervention outcomes for each client individually.

EVIDENCE-BASED PRACTICE IS NOT RESTRICTED TO CLINICAL DECISIONS

Although much of the literature on EBP focuses on effectiveness questions and on the clinical level of practice, EBP pertains to decisions made at other levels of practice, as well. Earlier, for example, we examined EBP questions that might be posed at the administrative level of practice. Other examples might involve decisions about community interventions, and social policies. Much of the EBP literature focuses on health care policy. An excellent book on that topic, by Muir Gray (2001), is *Evidence-Based Healthcare: How to Make Health Policy and Management Decisions*.

For example, one common area of inquiry regarding evidence-based health care policy pertains to the impact of *managed care*—a term referring to various approaches that try to control the costs of health care. The main idea is for a large organization (such as a health insurance company or a health maintenance organization) to contract with service providers who agree to provide health care at reduced costs. Health care providers are willing to meet the reduced cost demands so that more clients covered under the managed care plan will use their services.

Managed care companies also attempt to reduce costs by agreeing to pay only for the type and amount of services that they consider necessary and effective. Consequently, health care providers may feel pressured to provide briefer and less costly forms of treatment. Trujillo (2004, p. 116), for example, reviewed research on the EBP question: "Do for-profit health plans restrict access to high-cost procedures?" He found no evidence to indicate that patients covered by for-profit managed care plans are less likely to be treated with high-cost procedures than patients covered by nonprofit managed care plans.

DEVELOPING AN EVIDENCE-BASED PRACTICE PROCESS OUTLOOK

Becoming an evidence-based practitioner does not begin just by implementing the phases of the EBP process, phases that we examine more thoroughly in Chapter 2. To implement the process successfully, practitioners might have to change the way they

have been influenced to think about practice knowledge. For example, relatively inexperienced practitioners typically work in settings where more experienced practitioners and supervisors generally do not value research evidence as a basis for making practice decisions. In their own practice, as well as in their influences on newer practitioners, older and more experienced practitioners are likely to resist notions that they should be influenced by such evidence to change the way they intervene (Sanderson, 2002). These practitioners—including many who provide practicum training in professional education—may have been trained and feel proficient in only a small number of treatment approaches—approaches that may not be supported by the best evidence. Not only might they be dogmatically wedded to those approaches, research evidence might have little credibility in influencing them to reconsider what they do. Instead, they might be much more predisposed to value the testimonials of esteemed practitioner colleagues or luminaries renowned for their practice expertise (Bilsker & Goldner, 2004; Chwalisz, 2003; Dulcan, 2005; Sanderson, 2002).

Some practitioners may feel uncomfortable with EBP because of its emphasis on evaluation, the need for continuous development of new proficiency in skills in practice, and continuous reevaluation of current practices. Experienced practitioners may feel threatened or defensive about the "unproven" practices that they currently use, or feel that they already know how to provide services expertly and do not want to consider other options. Trainees may feel uncertain, anxious, or even embarrassed about their lack of skills in delivering new interventions and feel uncomfortable questioning the practices of senior colleagues. It's important to acknowledge and address these attitudes and fears—as they pose real barriers to the EBP process. Adopting an evidence-based practice outlook means fostering your comfort with self-critique and an openness to questioning and changing practices.

Critical Thinking

Gambrill (1999), for example, contrasts EBP with *authority-based practice*. Rather than rely on testimonials from esteemed practitioner authorities, EBP requires *critical thinking*. Doing so means being vigilant in trying to recognize testimonials and traditions that are based on unfounded beliefs and assumptions—no matter how prestigious the source of such testimonials and no matter how long the traditions have been in vogue in a practice setting. Although it is advisable for practitioners—especially inexperienced ones—to respect the "practice wisdom" of their superiors, if they are critical thinkers engaged in EBP, they will not just blindly accept and blindly conform to what esteemed others tell them about practice and how to intervene—solely on the basis of authority or tradition.

In addition to questioning the logic and evidentiary grounds for what luminaries might promulgate as practice wisdom, critical thinkers engaged in EBP will want to

be guided in their practice decisions by the best scientific evidence available. If that evidence supports the wisdom of authorities, then the critical thinkers will be more predisposed to be guided by that wisdom. Otherwise, they will be more skeptical about that wisdom and more likely to be guided by the best evidence. By emphasizing the importance of evidence in guiding practice, practitioners are thus being more scientific and less authority based in their practice.

A couple of critical thinking experiences in my practice career illustrate these points. When I was first trained in family therapy many decades ago, I was instructed to treat all individual mental health problems as symptomatic of dysfunctional family dynamics and to try to help families see the problems as a reflection of sick families, not sick individuals. This instruction came from several esteemed psychiatrists in a prestigious psychiatric training institute and from the readings and films they provided—readings and films depicting the ideas and practice of other notable family therapists. When I asked one prestigious trainer what evidence existed as to the effectiveness of the intervention approaches being espoused, he had none to offer. Instead, he just rubbed his beard and wondered aloud about what personal dynamics might be prompting me to need such certainty.

As a green trainee, his reaction intimidated me, and I said no more. However, shortly after concluding my training, various scientifically rigorous studies emerged showing that taking the approach espoused in my training is actually harmful to people suffering from schizophrenia, as well as to their families. Telling families that schizophrenia is not an individual (and largely biological) illness, but rather a reflection of dysfunctional family dynamics, makes things worse. It makes family members feel culpable for causing their loved one's illness. In addition to the emotional pain induced in family members, this sense of culpability exacerbates the negatively charged emotional intensity expressed in the family. People suffering from schizophrenia have difficulty tolerating this increased negative emotional intensity and are more likely to experience a relapse as a result of it. Thus, the authorities guiding my training were wrong in their generalizations about treating *all* mental health problems as a reflection of sick families.

Much later in my career, after many years of teaching research, I decided to try my hand at practice again by volunteering in my spare time as a therapist at a child guidance center, working with traumatized children. The long-standing tradition at the center was to emphasize nondirective play therapy. Being new to play therapy, I began reading about it and learned that there were directive approaches to it as well. I then asked one of the center's psychologists about her perspective on directive play therapy. She responded as if I had asked for her opinion on the merits of spanking clients. "We never take a directive approach here!" she said with an admonishing tone in her voice and rather snobby facial expression. Once again, I was intimidated. But I kept searching the literature for studies on play therapy and found several studies supporting the

superior effectiveness of directive approaches for traumatized children. Although more research in this area is needed, what I found showed me that there was no basis for the psychologist's intimidating reaction to my question. Instead, there was a good scientific basis for the center to question its long-standing tradition, at least in regard to treating traumatized clients.

Evidence-Based Practice as a Client-Centered, Compassionate Means, Not an End Unto Itself

My experiences illustrated that being scientific is not an end unto itself in EBP. More importantly, it is a means. That is, proponents of EBP don't urge practitioners to engage in the EBP process just because they want them to be scientific. They want them to be more scientifically oriented and less authority based because they believe that being evidence based is the best way to help clients. In that sense, EBP is seen as both a client-centered and compassionate endeavor.

Imagine, for example, that you have developed some pain from overdoing your exercising. You've stopped exercising for several weeks, but the pain does not subside. So you ask a few of your exercise companions if they know of any health professionals who are good at treating the pain you are experiencing. One friend recommends an acupuncturist who will stick needles in you near various nerve endings. The other recommends a chiropractor who will manipulate your bones and zap you with a laser device. On what grounds will you choose to see either or neither of these professionals? My guess is that before you subject yourself to either treatment you'll inquire as to the scientific evidence about its potential to cure you or perhaps harm you. You'll do so not because you worship science as an end unto itself, but because you want to get better and not be harmed.

Needless to say, you have some self-compassion. What about the compassion of the two professionals? Suppose you make a preliminary visit to each one to discuss what they do before you decide on a treatment. Suppose you ask them about the research evidence regarding the likelihood that their treatment will help you or harm you. Suppose one pooh-poohs the need for research studies and instead says he is too busy to pay attention to such studies—too busy providing a treatment that he has been trained in, has always done, and that he believes in. Suppose the other responds in a manner showing that she has taken the time to keep up on all the latest studies and explains clearly to you the likely benefits of the approaches she uses versus other treatment options that you might pursue. I suspect that because the latter professional took the time and effort to be evidence based, and transparent about the reasons why she delivers the intervention that she does, you would perceive her to be more compassionate. You might therefore be more predisposed to choose her (especially if the background music in the chiropractor's waiting area was Barry Manilow).

But human service interventions, such as alternative forms of psychotherapy, don't involve poking people with needles, manipulating their bones, or zapping them with lasers. At least not yet! If you are familiar with such controversial treatments as touch field therapy or rebirthing therapy, you might wonder what's next. You might also have read about a child's death that resulted from rebirthing therapy (Crowder & Lowe, 2000). But human service interventions can be harmful without causing physical damage. For example, the studies I alluded to in discussing my family therapy training found that certain intervention approaches for schizophrenia had unintended harmful effects. Instead of increasing the amount of time between relapses of schizophrenia, they decreased it (Anderson, Reiss, & Hogarty, 1986; Simon, McNeil, Franklin, & Cooperman, 1991).

Moreover, providing an ineffective intervention to people who are suffering—even if that intervention does not make matters worse—is harmful if we miss the opportunity to have alleviated their suffering with an available intervention that has been scientifically shown to be more effective.

Evidence-Based Practice and Professional Ethics

Thus, developing an EBP outlook is not just about science; it is about being more client centered, more compassionate, and even more ethical. Why ethical? Because, as you probably already have observed in your profession's code of ethics, ethical practice involves keeping up on the scientific evidence as part of trying to provide your clients with the most effective treatment possible. For example, the *Code of Ethics* of the National Association of Social Workers (1999) specifically requires social workers to include evidence-based knowledge in guiding their practice. It further states that practitioners have an ethical obligation to "fully utilize evaluation and research evidence in their professional practice" (5.02). Moreover, the *Code of Ethics* states that social workers have an ethical responsibility to provide services under informed consent. In other words, clients have a right to information about the purposes and risks of interventions so that they can engage in decisions about their own participation in interventions and exercise self-determination. The EBP process emphasizes transparency and information sharing with clients so that their preferences and values can be taken into account on balance with the research evidence and practitioner expertise. Clients who are educated about the research evidence can make better decisions about their own care—and can even advocate for funding or access to evidence-based services.

But What About the Dodo Bird Verdict?

Much earlier in this chapter we noted that some studies have found that one of the most important factors influencing service effectiveness is the quality of the practitioner–client relationship. We also noted that some studies have concluded that

the quality of the practitioner's clinical relationship skills has more influence on treatment outcome than the decisions made about what intervention to employ. Some have taken a more extreme position and argued that the choice of intervention is irrelevant because some studies have found that all interventions are equally effective if the practitioner providing them has good relationship skills (Wampold, 2001). Based on the latter studies, some scholars have criticized EBP and depicted it as a waste of time at best and perhaps even harmful if practitioners just follow an intervention manual and thus ignore their relationship skills. Their argument is known as the dodo bird verdict, based on the dodo bird's declaration after a race in *Alice in Wonderland* that "Everyone has won, and all must have prizes" (Luborsky, 1975).

There are, however, a number of counterpoints to be made to their argument. One, of course, is that—as noted earlier in this chapter—EBP questions are not just about intervention effectiveness and are not just at the clinical level of practice. Another counterpoint, also as noted earlier, is that other studies have not shared their conclusions. Some have found the choice of intervention to have a greater impact on outcome than do relationship skills. The same authors have noted methodological flaws in the studies supporting the dodo bird verdict (Beutler, 2002; Craighead, Sheets, & Bjornsson, 2005; Lilienfeld, 2007). Moreover, some studies that have concluded that relationship factors are more important have nonetheless found that while the choice of intervention might be less important, it is not unimportant. In light of those studies, one can argue that even if relationship factors are important it is a false dichotomy to conclude that relationship factors are all that matter. Why not work to maximize the benefit of both?

Another counterpoint to the dodo bird verdict argument against EBP is that virtually every treatment manual that accompanies interventions that are generally recognized as having the best scientific research evidence supporting their effectiveness stresses the importance of the therapeutic alliance and relationship skills as a necessary component of the intervention. Thus, if practitioners do not provide the intervention in the context of a strong therapeutic alliance and with good relationship skills, then they are failing to comply with the manual!

As a final counterpoint, let's suppose that the dodo bird argument is correct, that the choice of intervention does not matter, and that all that matters is relationship skills. Although we don't buy that argument, let's further suppose that practitioners choose, based on the research supporting the dodo bird argument, to focus exclusively on maximizing the strength of their relationship skills and of the therapeutic alliance. Would that mean that they are not engaging in the EBP process? The answer—paradoxically—is a resounding *no!* Why so? Because there is nothing in the definition of the EBP process that requires choosing a particular intervention. Instead, all that it requires is to choose to intervene in light of the best scientific evidence.

If practitioners decide that the best evidence indicates that to be most helpful to their clients they must emphasize relationship skills exclusively (and if that emphasis is consistent with their practice knowledge and client characteristics), and they therefore decide to be guided by that evidence in their practice, then they are following the EBP process and being guided by what they perceive to be the best evidence! That is what EBP is all about!

EASIER SAID THAN DONE

Being scientific and evidence based is a lot easier said than done. In Chapter 2, we examine various feasibility constraints practitioners face in trying to engage in the EBP process. For now, let's just note two problems. One problem is that searching for and finding the best scientific evidence to guide practice decisions can be difficult and time consuming. In some areas of practice there may be very little rigorous research evidence available—this can be especially true outside of the health and mental health fields of practice. As you engage in the EBP process, you may identify important gaps in the research.

Another problem is that even when you find the best evidence, it may not easily guide your practice decisions. Perhaps, for example, equally strong studies reach conflicting conclusions. In the vast literature evaluating the effectiveness of exposure therapy versus EMDR therapy in treating PTSD, for example, there are approximately equal numbers of rigorous clinical outcome experiments favoring the effectiveness of exposure therapy over EMDR and favoring EMDR over exposure therapy (Rubin, 2003).

Some searches will fail to find any rigorous studies that clearly supply strong evidence supporting the effectiveness of a particular intervention approach. Perhaps, instead, you find many seriously flawed studies, each of which supports the effectiveness of a different intervention approach. Some searches might just find what interventions are ineffective. (At least those searches might help guide you in deciding what *not* to do.)

Some searches might find the best scientific evidence supports an intervention approach that doesn't fit some aspect of your practice situation. Although exposure therapy and EMDR both have strong evidence for their effectiveness in treating PTSD, for example, some clients refuse to participate in them because they fear that the treatment process will be too painful in requiring them to recall and discuss the details of the trauma or perhaps visit places in vivo that resemble the site of the trauma. (Clinicians often succeed in helping clients surmount their fears of these therapies, but this is not always the case.) Also, as noted earlier, these interventions can be harmful to clients with substance abuse disorders or who are suicidal if they are provided to such clients before those comorbid disorders are alleviated.

Likewise, some interventions with the best evidence might never have been evaluated with a population of clients like yours, and your clients might have attributes that in some important ways are not like the attributes of those clients who participated in the evaluations. Suppose, for example, you reside in Alaska and want to start a program to treat Native Alaskan girls who have been victims of physical or sexual abuse and who suffer from PTSD. If you search the literature for effective treatments for PTSD, you are likely to find that the best evidence supports the effectiveness of interventions such as exposure therapy, EMDR, or cognitive restructuring. I say the "best" evidence because those interventions are likely to have been supported by the most scientifically rigorous outcome evaluations. However, in a search that I completed in preparing for a talk on EBP that I presented in Anchorage, Alaska, in 2006, I found no rigorous evaluations of the foregoing evaluations in which Native Alaskans participated.

I did, however, find numerous articles discussing the high prevalence of comorbidity with substance abuse among physically or sexually abused Native Alaskan girls. That illustrates another difficulty. Most of the evaluations offering the best evidence regarding the effectiveness of these treatments have excluded participants whose PTSD was comorbid with substance abuse. Thus, you would face a double whammy in trying to develop your treatment program based on the best evaluations. You would have serious doubts as to whether the findings of those studies can be generalized to Native Alaskan girls or girls with comorbidity. Even if the ethnicity issue didn't matter, the comorbidity issue might matter a great deal.

Even if you can't find the best sorts of evidence supporting the effectiveness of an intervention with clients just like yours, you still can operate from an EBP framework. One option would be to look for less rigorous evaluations that have involved clients like yours and which—while not offering the best evidence from a scientific standpoint—are not fatally flawed and thus offer some credible evidence supporting a particular intervention. If that option doesn't pan out, an alternative would be to use your practice judgment in deciding whether an intervention supported by the best evidence with clients unlike yours seems to be worth proposing to your client. If you monitor client progress (or lack thereof) during your client's treatment, you can change course if the intervention is not achieving the desired result. When you do discover a lack of evidence specific to your particular client population or target problem or problems, you may even be inspired to partner with researchers to test interventions and contribute to the research evidence. Novel practices can come from practitioners who are frustrated with the limitations of the interventions or the currently available research evidence.

In the next chapter, as we examine the steps in the EBP process, you will continue to see the importance of your practice expertise and idiosyncratic client circumstances and preferences in that process. Nevertheless, you might be wondering

whether engaging in the EBP process will have been a waste of time if your search finds no pertinent evidence. If so, consider the peace of mind you can feel knowing that at least you searched. Had you not searched, you would not know whether there is a better way to intervene with the people who need your help. Moreover, had you not searched, you would not know whether evidence exists implying that your intervention approach might be contraindicated, and perhaps even harmful, for those folks. Consider the pride you can feel as an ethical professional who has left no stone unturned in trying to maximize your practice effectiveness.

Key Chapter Concepts

- Although the term *evidence-based practice* is new, its underlying ideas are quite old.
- One of the most important factors influencing service effectiveness is the quality of the practitioner–client relationship.
- EBP is a process for making practice decisions in which practitioners integrate the best research evidence available with their practice expertise and with client attributes, values, preferences, and circumstances.
- Some misconstrue EBP in an overly simplistic cookbook fashion that seems to disregard practitioner expertise and practitioner understanding of client values and preferences.
- EBP is more than a static list of approved interventions that should be provided by practitioners even when practitioner knowledge about client idiosyncrasies suggests that an approved intervention appears to be contraindicated.
- An EBP question is formulated by a practitioner and pertains to knowledge needed to guide practice.
- Not all EBP questions imply the need to assess intervention effectiveness.
- Six common types of EBP questions that a practitioner might ask are:

  1. What intervention, program, or policy has the best effects?
  2. What factors best predict desirable or undesirable outcomes?
  3. What can I learn about clients, service delivery, and targets of intervention from the experiences of others?
  4. What assessment tool should be used?
  5. What about costs?
  6. What about potential harmful effects?

(*Continued*)

- Unlike authority-based practice that relies on testimonials from esteemed practitioner authorities, EBP requires critical thinking.
- Critical thinking involves the ability to spot unfounded beliefs and assumptions and to inquire about the logic and evidence supporting them.
- Developing an EBP outlook is not just about science; it is about being more client centered, more compassionate, and more ethical.
- Some scholars criticize EBP by citing the dodo bird argument that the choice of intervention is irrelevant because some studies have found that all interventions are equally effective if the practitioner providing them has good relationship skills. Proponents of the EBP process recognize the necessity of good relationship skills and have expressed a number of counterpoints to the dodo bird argument.
- Practitioners can face challenges implementing EBP given the limits of existing research evidence.

Review Exercises

1. Before reading Chapter 1, when have you encountered colleagues using the term *evidence-based practice?* How have they characterized it? Did they portray it in a manner that is consistent with the way it is defined in Chapter 1? If not, what would you tell them to improve their perception of, and perhaps their attitude about, evidence-based practice?
2. Try to recall a situation in your education, in-service training, or interactions with colleagues when someone espoused a particular intervention or practice idea based on authority or tradition. How did you react? Why did you react that way? To what extent was your reaction based on critical thinking? In light of what you have read in Chapter 1, how would you react now in a similar situation? Why would you react that way?
3. Think of a client you have worked with. Using the shaded area in Figure 1.1, identify elements of each of the three circles that would fit the shaded area with respect to that client, your expertise, and any evidence you are aware of regarding an intervention that fits that client.

ADDITIONAL READINGS

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