

CHAPTER
1

Evidence-Based Practice



Learning Objectives

- 1.1 Differentiate between the various ways of knowing.
- 1.2 Differentiate between evidence-based practices (EBPs) and evidence-based practice (EBP) as a decision-making framework.

Competency Covered	Learning Objectives	Dimension
Competency 4 <i>Engage in Practice-Informed Research and Research-Informed Practice</i>	1.1 Differentiate between the various ways of knowing. 1.2 Differentiate between evidence-based practices (EBPs) and evidence-based practice (EBP) as a decision-making framework.	Skills

PBL Case 1

Neighborhood House and Social Isolation

As you consider what constitutes evidence-based practice (EBP) and how to infuse EBP into your decision-making as a social worker, the following case example will be used to illustrate the application of EBP as a decision-making framework. By answering the questions related to this case example, you will be able to apply the EBP decision-making framework.

During Neighborhood House's executive board meeting, one of the board members brought to the board's attention a story in the *New York Times* profiling a young man with autism who was participating in a peer mentoring program at his middle school. The program

Master the content at
edge.sagepub.com/farmer

attempts to address the problem of social isolation often experienced by those with autism. The board member asks, “Do peer mentoring programs work in reducing social isolation among youth with autism? Should we be developing one? Are there other programs we could offer to youth and their families to address social isolation that middle schoolers with autism sometime experience?”

At this point, take a few minutes to think about the case example and do the following:

1. Identify the problem.
2. Determine what you already know about the problem.
3. Determine what information you need to solve the problem.
4. List the questions needed to be answered related to the information you need to solve the problem.

Please write down your responses to each item. You will need to refer to them while reading this chapter.

You are doing your field placement at Neighborhood House. Your field supervisor, Dr. Sage Hawthorne, has asked you and the other social work interns to help her find information to address the questions raised by the board member.

Introduction

In this chapter, you will learn about the various ways persons acquire knowledge and about evidence-base practice as a decision-making process.

Practice-Informed Research and Research-Informed Practice

In order for the social work interns to address the questions raised by the board member, they need to demonstrate mastery of Competency 4, *Engage in Practice-Informed Research and Research-Informed Practice*. Competency 4 states that social work practice should both inform and be informed by cultural and ethical empirical research. Social workers must contribute to the identification of researchable practice questions and the generation of empirical knowledge. Additionally, they must develop the knowledge and skills needed to translate research findings into effective practice.

The practice of social work involves the identification, implementation, and evaluation of those actions or strategies that need to be undertaken in order to empower individuals, groups, and communities in their efforts to achieve well-being. Various conceptual and theoretical perspectives inform the social work profession; they include person-in-environment (PIE), scientific inquiry, global perspective, human rights, and social justice (Council on Social Work Education [CSWE] 2015; National Association of Social Workers [NASW], 2017). The importance of scientific inquiry to the profession is reflected in Competency 4, *Practice-Informed Research and Research-Informed Practice*. CSWE (2015) has identified social workers' ability to use knowledge from multiple sources to inform their practice and to use practice experience to inform attempts to generate new knowledge as competencies that all social workers must possess.

The Search for Best Practices

The search for best practices often involves the identification of what should go on during the therapeutic encounter, what are the best practices the organization should engage in, in order to support the implementation of interventions, and sustainability of the best practices that are implemented.

Del Valle et al. (2014) used qualitative research strategies to study four high-performing and innovative vocational rehabilitation programs. EBP was an integral part of each of these programs. The authors identified the best practices associated with the implementation of state-wide vocational rehabilitation programs.

Research-informed practice begins with social workers attempting to identify those practices that are most likely to meet the needs of their clients. Social worker practice can be characterized as one involving a continual process of inquiry as to what are the *best practices* that can be undertaken to promote individuals' empowerment. The term *practice* is being used here to refer to all levels of social work practice (i.e., direct practice with individuals, groups or community, policy practice and research). **Best practices** are commonly known as those practices identified as most appropriate for use within a particular practice context, with particular groups to achieve particular outcomes (Mullen, Bellamy, & Bledsoe, 2008).

In the case example titled "Neighborhood House and Social Isolation," there is a need to identify those practices that the agency can engage in that will improve the social experiences of youth with special needs. That is, the staff in the agency need to determine if peer mentoring will reduce social isolation of youth with autism.

Identification of best practices begins with an understanding of strengths and weaknesses associated with the various ways in which individuals seek to acquire knowledge. Personal Experience, Tradition, Authority, Popular Media, and the Scientific Method represent ways social workers can acquire knowledge.

Ways of Acquiring Knowledge

Personal Experience

Application Checkpoint 1.1

Think about the ways in which the agency staff's experience with children with special needs can influence their perceptions of what programs could address the social needs of children with autism.

Daniel Tammet, a linguist and educator who has linguistic, numerical, and visual synesthesia,¹ in his TED Talk titled “Different Ways of Knowing,” illustrated how our experience of the world through our senses provides a powerful source of learning about the world. Tammet writes and speaks about how aesthetic judgment guides and shapes the way we learn about the world around us. His synesthesia, which he describes as a “cross talk” between the senses, is an extreme example of how senses shape knowledge development. For Tammet, learning about numbers involved learning about colors and shapes, because for him colors and shapes are properties of numbers. One's personal experience contributes to the development of a personal frame of reference that filters and organizes that individual's experience with the world. Our personal experiences provide a valuable method for the acquiring of new knowledge and skills. We learn vicariously by watching others and directly interacting with the environment (Bandura, 1986; Kolb & Fry, 1974). Not only does personal experience serve as a mechanism for acquiring new knowledge and skills, but it may be used to inform intervention development. For example, the knowledge derived from personal experience was used to inform the development of the successful implementation of a peer support intervention (Mendoza, Resko, Wohlert, & Baldwin, 2015) and mental and behavioral health interventions (Oates, Drey, & Jones, 2017). Personal experience as a social worker can contribute to the development of practice wisdom.

There are limits to the knowledge gathered via our personal experiences. Selectiveness of our perceptual system contributes to biases in reasoning such as

¹Synesthesia is a neurologically based condition in which a person experiences “crossed” responses to stimuli. It occurs when stimulation of one sensory or cognitive pathway (e.g., hearing) leads to automatic, involuntary experiences in a second sensory or cognitive pathway (e.g., vision).

observational selection and *confirmation biases*. **Observational selection bias** is the effect of suddenly noticing things we did not notice before.

Application Checkpoint 1.2

What can we learn from the experiences of those youth with autism, their family members, and friends about what might work to promote positive social experiences of those youth?

Along with noticing it more, your perception is that the numbers of that object in your environment have increased. For example, you buy a new red car, and you start to notice other red cars in your neighborhood like the one you own. It is a cognitive bias that could lead to attributing causality to events when coincidence or chance is the true explanation.

Confirmation bias focuses on our tendency to selectively attend to things that we agree with or that support our opinions. It is reflected in the tendency of those with liberal or conservative political opinions to favor talk show hosts with political opinions that mirror theirs. Confirmation bias also leads people to discount information that is inconsistent with their opinions. Information that is counter to a person's opinions can lead to an experience of cognitive dissonance. **Cognitive dissonance** is the discomfort one experiences when acting in a way that is incongruent with one's beliefs, norms, thoughts, or values (Festinger, 1957). People tend to want to avoid experiencing cognitive dissonance because of the mental stress associated with the experience. Additionally, an individual's beliefs, motivations, desires, expectations, and context all contribute both individually and collectively to biasing the accurateness and objectivity of one's perceptions (Pronin, 2007). Persons' lifetime of experiences with various groups based on age, ethnicity, social class, sexual orientation, and so on contribute to hidden biases in their perceptions.

Practice Wisdom

Practice wisdom has been described as resulting from the accumulation of information, assumptions, and judgments that can be applied to practice. Personal experiences contribute to that accumulation of information and contribute to one's evaluation of that information (Chu & Tsui, 2008). Practice wisdom is included among the five areas of knowledge—theoretical, empirical, procedural, performance, and personal (Gambrell, 1999; Hudson, 1997). It is a source of knowledge that is not gained from a technical rational process of reasoning or the application of theory (Cheung, 2015). Practice wisdom is believed to have four features: agential, fluid, interactive, and moral reasoning and cognitive knowledge.

Application Checkpoint 1.3

Consider the ways in which the director of Neighborhood House could use the practice wisdom of staff to develop new programs addressing the social isolation of youth with autism.

Agential. Practice wisdom involves the social worker actively reflecting on his or her experiences to give personal meaning to those experiences. The social worker is involved in developing a personal and practical knowledge that will guide his or her practice. The knowledge developed is not objective.

Fluid. Practice wisdom is part of an ongoing process of reflecting on actions. The knowledge that makes up practice wisdom is provisional and undergoes continuous revisions.

Interactive. Practice wisdom is part of a contextual, collaborative learning process. It emerges through the social worker's interaction with others in the practice setting. The active reflection of the social worker on his or her interactions with others in the practice environment contributes to the knowledge development.

Moral Reasoning and Cognitive Knowledge. Practice wisdom highlights the interplay between the values and ethics of social work practice and the social science cognitive knowledge base.

Tradition

Different ways of knowing differ in the extent to which they highlight uncertainty and are designed to weed out biases and distortions that may influence assumptions. (Gambrill, 2012, p. 206)

Looking to an organization's traditional or routine way of doing things can serve as a form of learning for social workers. It is comforting to those new to an organization to be able to look to those traditional practices for guidance as to what is expected. An organization's traditions sometimes represent the accumulated knowledge gained from the experiences of professionals at the organization. This accumulated experiential knowledge can represent the *organizational practice wisdom*. Those traditions can also be the product of *ingroup bias*. This represents confirmation bias at the group level. Over time, the reason for why an organization or groups established a tradition becomes lost to the group, yet the tradition continues without critical examination of its utility.

Authority

Professionals often seek out knowledge and experience from those in position of authority to inform their actions. In those cases, where those in authority have come to their position because of their development of expertise in an area of practice,

they become valuable problem solvers for the novice. Studies of novice and expert chess players have given us insight into differences in their approach to problems. Experts notice features and meaningful patterns of information in a problem that are missed by the novice. The experts have a deeper depth of content knowledge and have organized that information more efficiently than the novice. Individuals can use their position of authority to hinder innovation. When those in authority are not continually renewing their knowledge, outdated strategies for addressing a problem may be relied on. Having a position of authority in one's area may falsely give a person creditability to speak on issues outside his or her realm of expertise.

Popular Media

The Internet age has created new sources of media to distribute information and support learning. Individuals are turning to Wikipedia, YouTube, Facebook, and Twitter to acquire news and information that just a generation ago was only available in bookstores, libraries, and classrooms (Sanger, 2010). The Pew Research Center's 2016 survey of Americans' Internet access determined that about four in 10 Americans often get news online (Mitchell, Gottfried, Barthel, & Shearer, 2016). In that same study, 62% of Americans got their news from social media (i.e., Facebook, Twitter, Reddit). A social worker can turn to YouTube or an MOOC² like edX³ to learn about cognitive behavior therapy, comparative policy analysis, or any topic taught in a face-to-face classroom. The Internet has not only improved social workers' ability to access information, but it has also increased consumers' ability to engage in seeking health and wellness information. In 2019 there were nearly 14,000 open-access journals⁴ giving anyone with Internet access free access to more than 2 million articles (see Directory of Open Access Journals, <https://doaj.org/>). Additionally, the digital divide has been closing with the increased smartphone ownership and use among young adults, minorities, and those with moderate incomes (Zickuhr & Smith, 2012). This point is illustrated as it relates to income in Figure 1.1. There is evidence that the amount of websites disseminating health information has increased. It has been documented that there are more than 70,000 websites disseminating health information and over 50 million individuals who accessed those sites (Cline & Haynes, 2001).

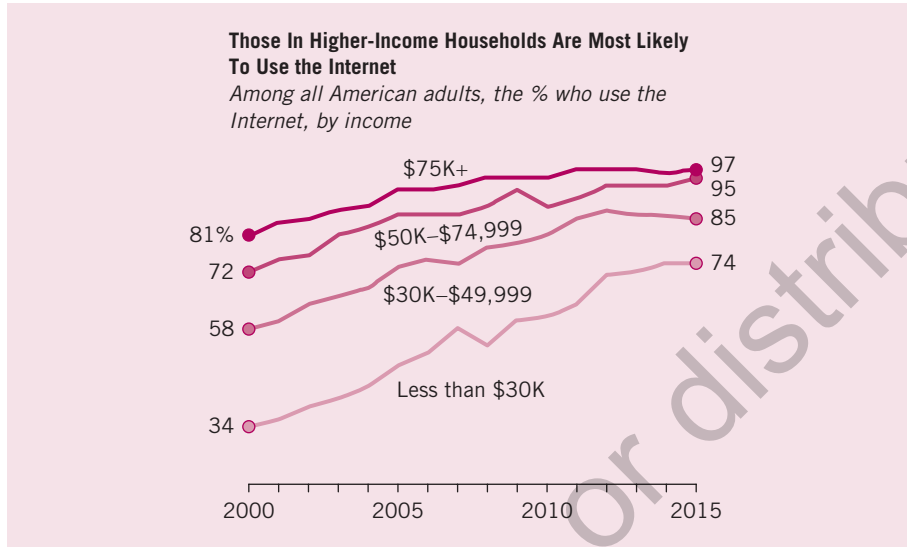
However, caution needs to be taken when consuming information from the Internet. The quality of information on the millions of sites varies. There is evidence that social media services such as Facebook and Twitter are susceptible to the *echo chamber effect*. The **echo chamber effect** is a phenomenon wherein information or beliefs are reinforced by repetitive transmission inside an enclosed virtual space (Vicario et al., 2016). Larry Sanger, the cofounder of Wikipedia, has expressed concern that there is no standard review process of the material on the site by experts (LarrySanger.org).

²Massive Open Online Courses

³edX was founded by Harvard University and MIT in 2012.

⁴Open-access journals are scholarly journals that are available online without individuals having to have a subscription or pay to view the articles published in the journal.

Figure 1.1 Closing the Digital Divide



While those with higher income continue to have higher rates of access to the Internet, the gap among the various income groups has decreased between 2000 and 2014.

Source: “Those In Higher-Income Households Are Most Likely To Use Internet.” Pew Research Center, Washington, DC (2015) <https://www.pewinternet.org/chart/those-in-higher-income-households-are-most-likely-to-use-internet/>

Personal experience, tradition, authority, and popular media represent ways social workers can acquire knowledge that are often contrasted to the scientific method.

Critical Thinking Question 1.1

How would you hypothesize the ways in which the staff’s experiences with youth who have special needs, the agency’s typical approaches to program design, the perspective of board members, and recent TV shows with characters with autism might shape the agency’s effort to develop new programming to address problem social isolation? Justify your response.

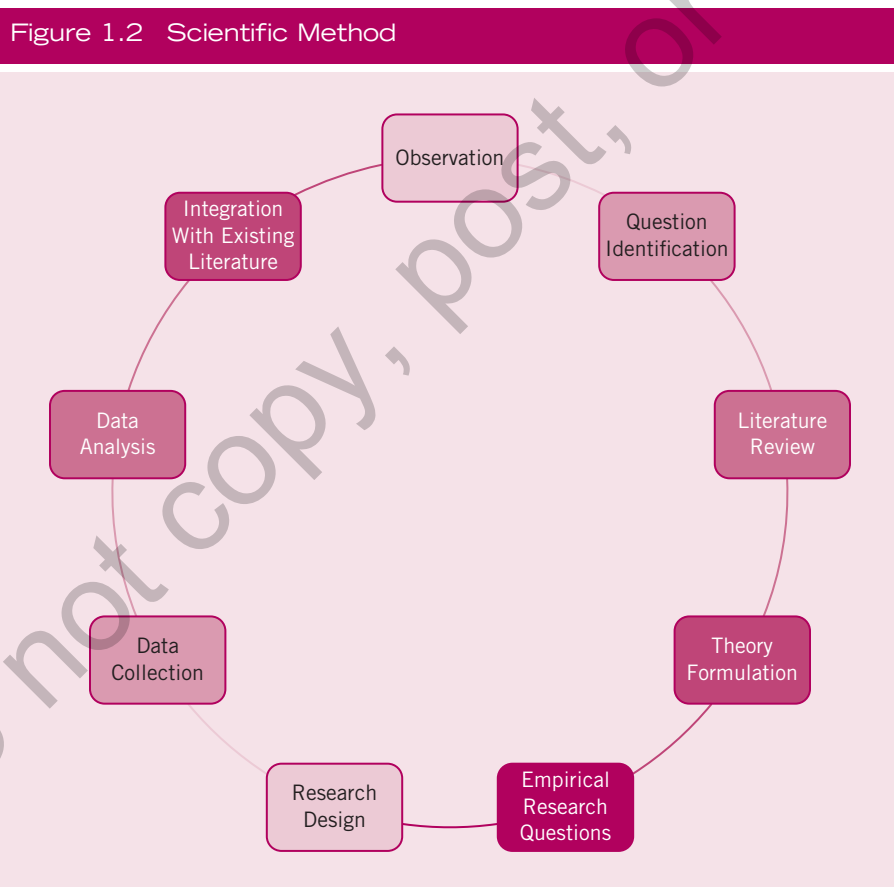
Scientific Method

Top Down or Bottom Up

Stereotypical portrayals of the scientific process have a researcher sitting in his or her office or lab, reviewing previous research, and from that review generating a new study. In this picture, the researcher guides the study process. He or

she is responsible for the identification of the research questions, data collection, data analysis, and the reporting of findings. However, based on Competency 4 (*Engage in Practice-Informed Research and Research-Informed Practice*) and the evidence-based movement in social work, there is recognition that social work practice must inform social work research and social work research must inform social work practice—that is, the research generated in the university is used by practitioners and practitioners generate practice knowledge that inform research conducted by researchers. The data mining work conducted by social work researchers has demonstrated how the practice-to-research process contributes to the development of evidence-based practices in social work (Bradt, Roose, Bouverne-De Bie, & De Schryver, 2011; Epstein, 2011; Plath & Gibbons, 2010).

While the procedures carried out when the scientific method is being implemented differs across scientific disciplines, there are spheres of activities common to the process (see Figure 1.2). These spheres are: *Observation, Question Identification, Literature Review, Theory Formulation, Empirical Research Question, Research Design, Data Collection, Data Analysis, and Integration With Existing Literature*.



Data Collection, Data Analysis, and Integration With Existing Literature. For those disciplines using the scientific method, knowledge is established by the use of rigorous and systematic testing (Jaccard & Jacoby, 2012). These activities attempt to address the limitations associated with other methods used to acquire knowledge. It is assumed that all knowledge is provisional and subject to refutation. The scientific method makes the knowledge development process both transparent and subject to replication. The ability for others to independently replicate findings provides a safeguard against bias.

Observation. The process often begins with a set of observations an individual has about a phenomena or experience. The scientific method attempts to provide structure to an individual's observations that will address inherent biases. For social workers, the process often begins with observations about our clients or the client's systems. For example, we can observe those characteristics of the social networks of children with a learning disability. Or we could observe what we think are the effects that changes in policies regarding the inclusion of children with learning disabilities in general education classrooms has on incidences of bullying at the school. Those observations can be grounded in the individual's direct interaction with the world, vicariously by way of others' experiences, or via the person's thoughts about the world. The ways in which individuals attempt to organize and/or make sense of those observations leads to the development of questions that can possibly impose some organization to the observations. The selective nature of our observations often lead to biases that the scientific process attempts to address.

Application Checkpoint 1.4

Consider how the observations of the interactions among children at the Neighborhood House could contribute to the development of questions that could inform further research and possible development of an intervention.

Question Identification. This represents the initial identification of the gap in understanding about a phenomenon that the researcher wants to address. This question needs to be refined for an empirical study to be conducted. It is typically consistent with the overall aims or purposes of a study. For example, can the social skills of children with autism be improved? Virues-Ortega, Julio, and Pastor-Barriuso's (2013) meta-analysis of the research on the TEACCH program was meant to contribute to addressing that larger question of whether the social skills of children can be improved. The literature review attempts to refine the initial question.

Application Checkpoint 1.5

Without the use of professional jargon, what are two questions that staff at the Neighborhood House should formulate that would support their efforts to develop an intervention?

Literature Review. The formulation of a question grounded in one's experience of the world leads to an examination of the existing literature. The literature review process attempts to place these initial observations and questions within a larger body of observations and potential theory and/or conceptual framework. The literature review can take on various forms, from the concise and targeted reviews found in journal articles to the lengthier reviews found in systematic reviews. For example, consider a social worker providing services to older adults living in an assisted-living center who has a question about the type of lifestyle activities most beneficial to his or her clients. The social worker might find a brief review of the literature on the topic in Akbaraly and colleagues' (2009) study of leisure activities and risk of dementia or take a look at a comprehensive systematic review conducted by Anderson et al. (2014). The literature review provided by Akbaraly et al. (2009) has the purpose of placing the study within an empirical and theoretical context that will provide the reader with a concise and clear rationale for the study; the systematic review conducted by Anderson et al. (2014) has the larger purpose of synthesizing the findings of the larger body of empirical studies on the topic, with the goal of drawing conclusions about the status of knowledge in the area. The brief literature review found in the typical research article represents a narrative analysis of the findings from others' research and typically does not report on new or original research findings. On the other hand, the systematic literature review can incorporate the secondary analysis of data from studies that were previously conducted and can generate new research findings. Systematic literature reviews that involved the secondary analysis of quantitative data found in previously conducted research studies are called meta-analyses. For example, Scherder et al. (2014) conducted a systematic review that incorporated a meta-analysis of the research on moderate physical activity on cognitive functioning of older adults.

Both our personal experiences and engaging in a review of literature can each contribute to the formulation of a theory. A **theory** is used to explain why a phenomenon or the relationships among variables exists. The interrelationship among the variables contributes to our understanding of a phenomenon.

Theory Formulation. As staff at the Neighborhood House seek to develop an intervention to address social isolation that children with autism experience, they might want to consider Bauminger, Shulman, and Agam's (2003) use of social development theory to understand social initiation behavior of children with autism. Theory is used to develop hypotheses. Hypotheses are testable predictions about

the relationships among variables. They can take on an “If–then” format—for example, “If typically developing children serve as role models for children with autism, then children with autism will be more motivated to engage in schoolwork than those students who do not have these role models.” Hypotheses can also be statements about associations among variables—for example, “Group-based discrimination is related to hopeful thinking.” The predictions made by the hypotheses must have the potential to be testable. A hypothesis is testable when it is possible to observe information that could provide support or disconfirm that hypothesis.

There may be times when technology has not advanced enough to provide a direct observation of variables identified in the hypothesis. In 1546, Girolamo Fracastoro proposed the germ theory of disease. The theory proposed that microorganisms caused diseases, but the development of the microscope that would make it possible to see germs was not invented until the 1620s (Porter, 1997). The observation of microorganisms was not to occur until the 1670s (Porter, 1997).

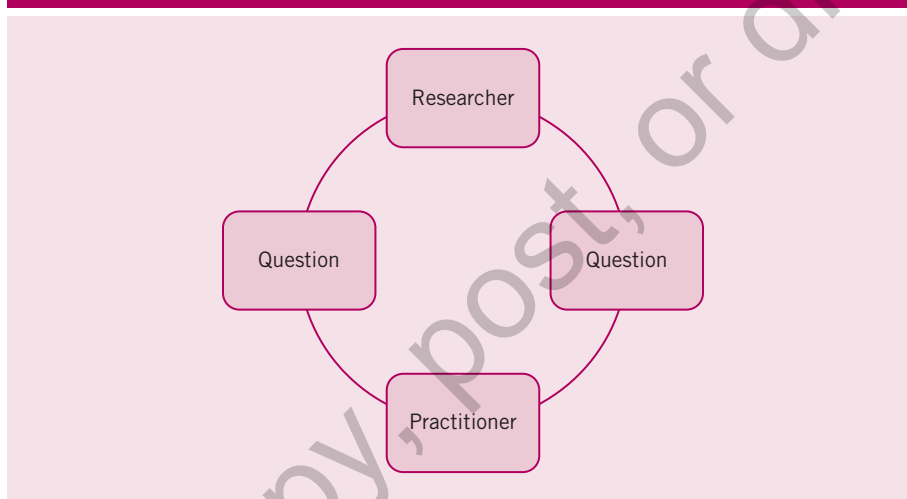
Within the scientific method, there is a complex interplay between research activities and the development or refinement of theories. Theories play a role in shaping the questions individuals may ask about their observations. For example, theories of human behaviors, such as attachment theory or systems theory, could be used to provide guidance on what questions to ask to gain understanding of the observations. Theory can also play a role in the development of hypotheses. The research process often, but not always, involves the development of specific hypotheses or testable predictions about the nature of the relationships among variables associated with the phenomenon. During early stages of our understanding of some phenomena, we may not have enough information or have identified a theory to guide in the development of testable hypotheses. In the absence of theory, researchers may use a conceptual framework to guide the exploratory analysis of the phenomena. For example, when studying the changing phenomena of bullying among teenage girls, Jamal, Bonell, Harden, and Lorenc (2015) used the social-ecology framework to guide their study in determining the role the school structure, policies, and practices may have in maintaining stable “bully” and “victim” roles, which contribute to unhealthy interpersonal relationships in the school.

Empirical Research Questions. Researchable questions can come from many sources: findings from previous research, observations, theory, and merely thinking about the world can all be sources. Many times, findings from previous research and challenges faced in practice are the source of research questions. For example, Mazzola’s (2016) research questions were sparked by her desire to learn more about how students’ connection to their school community affected the amount of time and attention they invest into their school work. Larsson, Pettersson, Eriksson, and Skoog (2016) formulated their research questions that focused on exploring mentors’ motivation from research on mentoring programs. They identified the recruitment of mentors as a problem. Observations can lead to the development of specific hypotheses or predictions about relationships among variables associated with the phenomenon or how to best describe the phenomenon. Zhang, Cui, Iyer,

Jetten, and Hao (2014) developed hypotheses regarding the barriers to the development of hopeful thinking when individuals face discrimination based on their group membership. Their study provided support for how individuals' position in a socio-cultural group plays a role in their life satisfaction.

Competency 4, *Engage in Practice-Informed Research and Research-Informed Practice*, states that social workers “use practice experiences to inform scientific inquiry and research and use and translate research evidence to inform and improve practice, policy, and service delivery” (CSWE, 2105, p. 8). In other words, social workers' practice experiences contribute to the creation of researchable questions, and the engaging in the research process can lead to development of research questions relevant to practice. The illustration of this process can be seen in Figure 1.3.

Figure 1.3 Research-to-Practice, Practice-to-Research



Research Design, Data Collection, and Analysis. Research design refers to the procedures that will be undertaken to gather and analyze the information needed to evaluate the accuracy of the study's hypotheses or research questions. Chapters 6, 7, and 10 provide a detailed discussion of three classes of research designs: experimental, quasi-experimental, and observational that can be used to gather data to answer research questions and test hypotheses. Research designs provide an alignment among the research questions, when appropriate hypotheses, analysis, and interpretation of the results. Research questions and hypothesis tend to lend themselves to specific study designs, for example, questions about causal relationship lend themselves to the use of experimental and quasi-experimental designs, while questions about associations among a series of variables lend themselves to observational designs. Chapter 13 covers the aspects of quantitative data analysis, and Chapter 14 covers the aspects of qualitative data analysis.

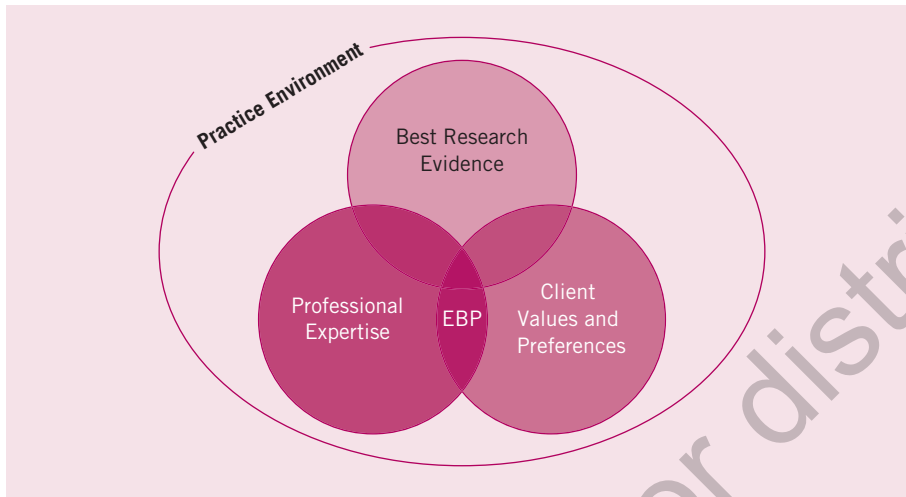
Integration With Existing Literature. The scientific method is grounded in the assumption that knowledge is cumulative in nature. The ability to develop knowledge by integrating across the multiple observations of study participants and across independently conducted research studies is essential to the scientific process. One of the tasks of the researcher when developing the discussion section of a journal article is to demonstrate to the reader how the findings contribute to the existing body of empirical literature. For example, Feldman and Crandall (2007) in their discussion section focused on how their finding linking social distance ratings with various characteristics associated with different psychiatric diagnoses contributed to an understanding of specific aspects of a mental illness, which contributed to the stigma experienced by those with the illness. As researchers attempt to integrate the findings of their study into the existing literature, attention must be given to what research is needed to further the development of knowledge in the study area.

Evidence-Based Practice. What should guide the decision-making process for those social workers at the Neighborhood House who are seeking to reduce the social isolation of the children they work with? Should the social workers seek the opinions of other, more experienced social workers, review the empirically based literature for theories of human behavior, or rely on their own personal experiences? The evidence-based practice (EBP), as a decision-making process, provides a framework for social workers to identify best practices in the areas of assessment, evaluation, and intervention selection, and is illustrated in Figure 1.4. EBP can be applied to all areas of social work practice. Besides the application of EBP to the decision-making process associated with the selection of interventions that target individual- and client system-level outcomes, EBP can be used by social workers focused on policy analysis, community development, advocacy, and more.

Current conceptualizations of EBP in social work are reflective of a long-standing effort to integrate research into social work practice that dates back to the work of Mary Richmond (Fisher, 2012) along with the current evidence-based medicine (EBM) movement (Mullen & Shuluk, 2011). EBP has spread beyond medicine and social work into other disciplines, for example, education (Simons, Kushner, Jones, & James, 2003), public policy (Parsons, 2002), and conservation (Sutherland, Pullin, Dolman, & Knight, 2004). The EBP model focuses on practice decision-making being the intersection among the best available empirical knowledge, a client's values and preferences, and the professional expertise of the social worker (see Figure 1.4). The EBP decision-making process occurs within the context of the larger practice environment. The practice environment includes such things as the legal and ethical constraints, and the organizational and community resources present in the practice setting.

EBP is a proactive and reflective decision-making process used to identify best practices for a given practice situation. The process is multidimensional and value conscious (Petr & Walter, 2005). The process should be guided by an awareness of

Figure 1.4 EBP Decision-Making Framework



the multidimensional nature of knowledge—knowledge that can be acquired from the existing research, individuals and client systems, and the experiences of professionals (Petr & Walter, 2005). EBP should be differentiated from evidence-based practices (EBPs)—the interventions strategies that have a body of empirical evidence to support their efficacy are considered evidence-based practices (EBPs). Program registries have been established by various nonprofit organizations and governmental agencies to review the nature and quality of the empirical evidence available on interventions to determine their status as EBPs. Examples of EBP registries are presented below.

Example EBP Registries

The California Department of Social Service established the California Evidence-Based Clearinghouse for Child Welfare (CEBC). The CEBC (<http://www.cebc4cw.org/>) maintains an online database of evidence-based practices relevant to child welfare.

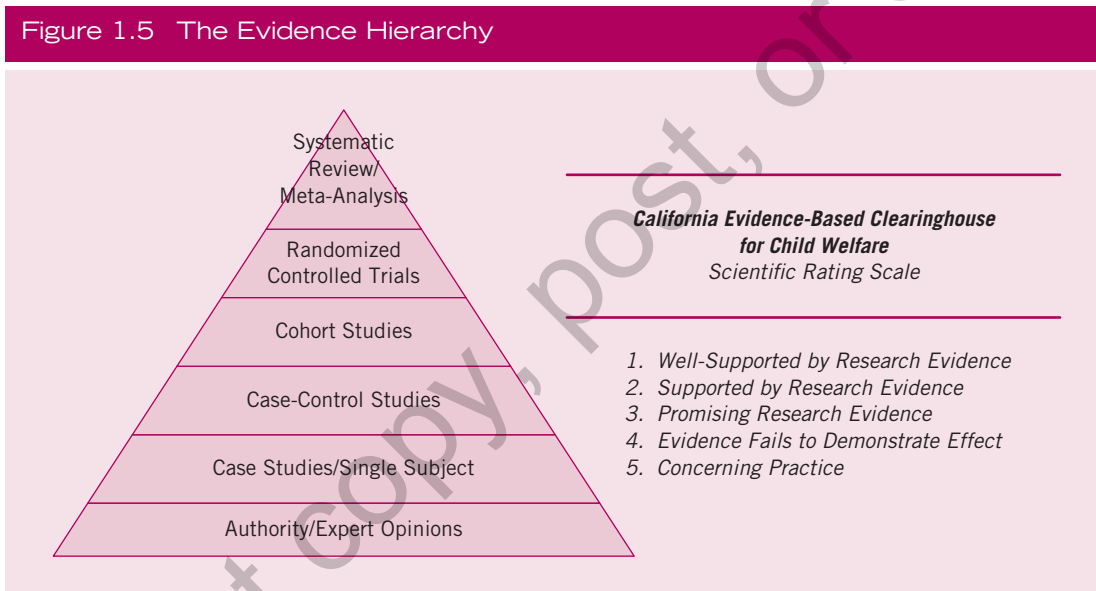
The Substance Abuse and Mental Health Service Administration (SAMHSA) established the National Registry of Evidence-Based

Programs and Practices (NREPP; <http://www.samhsa.gov/nrepp>) in the area of behavioral health interventions.

Coalition for Evidence-Based Policy <http://toptierevidence.org/> provides information about research-supported social programs in such areas as health, education, and community development.

A critical and controversial element of EBP is the establishment of a hierarchical system of classifying evidence and the classification of interventions (Burns, Rohrich, & Chung, 2011; Epstein, 2011). The evidence hierarchy rates sources of evidence in terms of their ability to establish causality (Figure 1.5). In looking at the evidence hierarchy, one can see that experts' or practitioners' opinions are considered the weakest form of evidence and studies that involve combining information from a series of randomized controlled trials (RCTs) or experiments (meta-analyses) are considered the highest form of evidence. In this hierarchy, evidence generated when experimental controls can be imposed is privileged over evidence generated in practice settings where experimental controls are often not present. The introduction of experimental controls allows for the establishment of efficacy of an intervention. Typically, the introduction of experimental controls will reduce the authenticity of the setting in which the evidence is being generated. This reduction in authenticity reduces an understanding of how effective the intervention will be when used in real-world practice settings.

Figure 1.5 The Evidence Hierarchy



There are several classifications systems for the identification of EBPs. They all attempt to look at the quality of research evidence supporting the effectiveness of the practice. The California Evidence-Based Clearinghouse for Child Welfare has a rating classification system for interventions used in child welfare and is an example of an EBPs classification system. The categories in this classification system are: *Concerning Practice*, *Evidence Fails to Demonstrate Effect*, *Promising Research Evidence*, *Supported by Research Evidence*, and *Well Supported by Research Evidence*.

Concerning Practice. A practice that receives a Concerning Practice classification is one where there exists research evidence that the practice may be harmful

or that the practice places individuals at risk for harm above what would be the case if other practices were used.

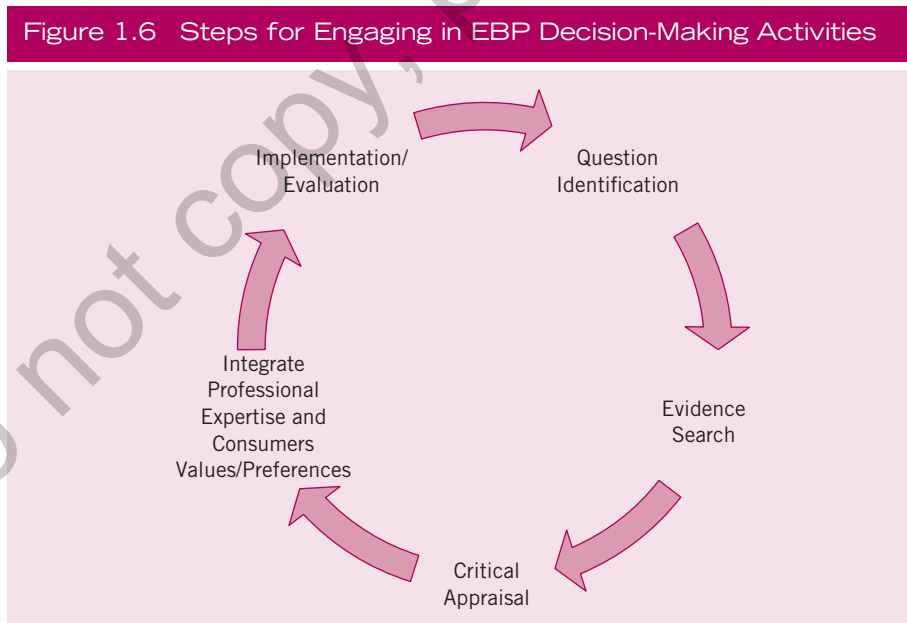
Evidence Fails to Demonstrate Effect. This classification is for an intervention that has been subjected to two or more RCTs that failed to demonstrate positive outcomes. There is no evidence of the intervention having harmful effects.

Promising Research Evidence. There is evidence from at least one study with a control group that had positive results. There is no evidence of the intervention having harmful effects.

Supported by Research Evidence. In this category, at least one RCT was carried out in the usual care or practice settings that provided evidence of positive outcomes. The positive effects have been sustained for at least six months.

Well Supported by Research Evidence. A practice that receives a Well Supported by Research Evidence classification is one where at least two RCTs were carried out in the usual care or practice settings. The RCTs provided evidence of the effectiveness of the intervention. The evaluation studies of the intervention provided evidence of sustained effects for at least one year.

Engaging in EBP as a decision-making activity involves moving through five steps: *Question Identification, Evidence Search, Critical Appraisal, Integrate Professional Expertise and Consumer's Values and Preferences, and Implementation and Evaluation* (Figure 1.6).



Question Identification. The process begins with the development of a practice-centered question that is focused on achieving some practice goal. Sometimes referred to as a COPES question (client-oriented practical evidence search; Gibbs, 2005), these are questions generated to guide the decision-making of the social worker. They can take on many forms—questions about the best intervention to use, the best assessment strategies to engage in, or the best theoretical framework to use to understand the situation the social worker is facing. They are questions that will be used to search the existing published empirical literature.

Evidence Search. The COPES question is used to search the existing published literature and literature found outside of mainstream research journals (i.e., government reports, dissertations, and conference proceedings)—for example, searching Social Work Abstracts, PsychINFO, Cochrane Library, Google Scholar, and so on. Additionally, evidence from agency records obtained by mining administrative records can also be included in the search process (Epstein, 2015).

Critical Appraisal. Critical appraisal involves using knowledge of strengths and weaknesses of various methods used to generate evidence; the quality of the evidence needs to be evaluated. Questions about the reliability, validity, and generalizability of the evidence should be evaluated.

Integrate Professional Expertise and Consumer Values/Preferences. Justification of the social worker's actions cannot rely solely on the research evidence. The consumer's values and preferences along with the social worker's values and expertise need to be integrated into the decision-making process.

Implementation and Evaluation. Competency 9 (Evaluate Practice with Individuals, Families, Groups, Organizations and Communities) of the 2015 EPAS indicates that social workers should be competent in those skills needed to evaluate practice. The utilization of research skills to evaluate practice not only represents the application of competencies developed while obtaining a social work degree but contributes to the knowledge base of the profession and effectiveness of social work organizations. Evaluation contributes to a social work organization's ability to become a *learning organization* (Torres & Preskill, 2002). In order for social workers and social services organizations to effectively address the changes to the well-being of their client population, they must be engaged in a continuous process of growth and improvement. Learning organizations are those that have both staff and the organization engaged in a continuous process of using both externally and internally generated knowledge to improve their effectiveness.

SUMMARY, REVIEW, AND ASSIGNMENTS

CHAPTER SUMMARY ORGANIZED BY LEARNING OBJECTIVES

LO 1.1 Differentiate between the various ways of knowing.

Personal experience contributes to the development of a personal frame of reference that filters and organizes an individual's experience with the world. It provides a valuable method for the acquiring of new knowledge and skills.

Practice wisdom comes from the accumulation of information, assumptions, and judgments that can be applied to practice. It is a source of knowledge that is not gained from a technical rational process of reasoning or the application of theory. Practice wisdom is believed to have four features: agential, fluid, interactive, and moral reasoning and cognitive knowledge.

An organization's traditions sometimes represent the accumulated knowledge

gained from the experiences of professionals at the organization.

Professionals often seek out knowledge and experience from those in a position of authority to inform their actions.

The Internet age has created new sources of media to distribute information and support learning.

LO 1.2 Differentiate between evidence-based practices (EBPs) and evidence-based practice (EBP) as a decision-making framework.

EBPs—the interventions strategies that have a body of empirical evidence to support their efficacy are considered evidence-based practices.

EBP—a proactive and reflective decision-making process used to identify best practices for a given practice situation.

KEY TERMS

Best practices 3
Observational selection bias 5

Confirmation bias 5
Cognitive dissonance 5
Practice wisdom 5

Echo chamber effect 7
Theory 11

COMPETENCY NOTE

In this chapter, you were introduced to the competency below:

Competency 4, *Engage in Practice-Informed Research and Research-Informed Practice*.

Social workers engage in the EBP decision-making in working with clients.

ASSESSMENT QUESTIONS

1. How did the information in this chapter enhance your knowledge about evidence-based practice?
2. How did the information in this chapter enhance your knowledge about the ways of knowing?
3. What specific content discussed in this chapter is still unclear to you? If there is still content that is unclear, schedule an appointment with your instructor to gain more clarity.

END-OF-CHAPTER EXERCISES

1. Interview the field instructor at your field placement to determine why the staff use particular treatments.
2. Select one of the treatments your field supervisor told you about and find an article discussing its effectiveness. What information did the author use to support the treatment effectiveness?
3. Using the same article you found for Question #2, identify an expert on the treatment that was discussed. Indicate why you identified this person as an expert. Find the expert's curriculum vitae (CV) on the Internet. Is there information from the CV that can be used to justify your deeming this person as an expert? What information is there, and how does this compare with the original information you used to classify this person as an expert?



Get the tools you need to sharpen your study skills. SAGE Edge offers a robust online environment featuring an impressive array of free tools and resources.

Access practice quizzes at edge.sagepub.com/farmer