Evidence-Based Practice: An Alternative to Authority-Based Practice*

by Eileen Gambrill

KEY QUESTIONS REGARDING knowledge and practice include the following: What values, knowledge, and skills increase the likelihood of attaining outcomes valued by clients? Do social workers have this? Do social workers have specialized knowledge that makes them more effective than empathic nonprofessionals? Do they draw on knowledge that maximizes the likelihood of helping clients attain outcomes they value? Is there any evidence that special training, credentials, or experience contributes to doing more good than harm? And in relation to all these questions, how do we know? Unlike the humanities, we have clients with real-life problems; we can look and see whether problems have decreased, increased, or have not changed and explore helper characteristics related to different outcomes. Social work claims to be a profession that provides special expertise to address certain kinds of problems. Schools of social work purport to provide this specialized knowledge to students. Consider the claims made in the "policies" approved by the NASW Board of Directors in January 1999 for inclusion on the assembly's final agenda.

> *Professional social workers possess the specialized knowledge necessary for an effective social services delivery system. Social work education provides a unique combination of knowledge, values, skills, and professional ethics which cannot be obtained through other degree programs or by on-the-job training. Further, social work education adequately equips its individuals with skills to help clients solve problems that bring them to social services departments and human services agencies. (NASW News, p. 14)*

These claims all relate to knowledge. To my knowledge, there is no evidence for any of these claims. In fact, there is counterevidence. In Dawes' (1994) review of hundreds of studies, he concluded that there is no evidence that licenses, experience, and training are related to helping clients. If this applies to social work and, given the overlap in helping efforts among social workers, counselors, and psychologists, it is likely that it does, what are the implications? If social work is a profession based on claimed rather than demonstrated effectiveness in helping clients attain hoped-for outcomes, how is this embarrassing situation handled? One strategy has been to ignore the contradiction between claims and reality and to censor related data by not sharing this with students. This strategy is to simply pronounce what is and what is not even though there is no evidence for claims as seen in the proposals in the *NASW News* (March 1999) described earlier (i.e., to rely on authority) (Gambrill, in press). A second strategy is to investigate what values, skills, and knowledge are needed to achieve certain outcomes and then to determine who has them and the role of education or experience in providing them. These strategies reflect two different approaches to the relationship between practice and knowledge: evidence-based (the second) and authority-based (the first). The consequences of these different approaches to knowledge for clients, social workers, and taxpayers are suggested. First, let's consider different views of knowledge.

Different Views of Knowledge and How It Can Be Gained

There is no agreement on "one way of knowing" in social work, and it is certainly not scientific reasoning that is accepted, as can be seen by examining the literature in social work on "different ways of knowing." In reviews of research published in five social work journals, Glisson (1990) found that the majority of studies (63%) used surveys without probability sampling. Only a small percentage involved single case (1.9%) or experimental studies (4.6%). Fraser and his colleagues (1991)

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reported similar findings in a review of ten journals between 1985 and 1988. They concluded that "the core social work literature contains little rigorous research from either a quantitative or qualitative point of view" (p. 253). Antiscience is common (perhaps most common) in academic settings (Patai & Koertge, 1994). Many people confuse science, scientism, and pseudoscience, resulting in an antiscience stance. Some argue that nothing can be known for sure. (This is assumed in science.) The question, "What is knowledge?" has been of concern to philosophers throughout the ages. We can draw on the thoughtful writing of philosophers such as Gellner (1992), Munz (1985), and Popper (1972, 1994) to critically appraise different perspectives (e.g., relativism and reason) in relation to maximizing the growth of knowledge that helps clients minimize problems they confront. 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. Certain "ways of knowing" compared to others are designed to rigorously test guesses (e.g., about effective-

ness). The very purpose of experimental studies and certain kinds of single-case designs is to avoid unwarranted assumptions about effects. (Whether they offer information about the role of methods used in the reported effects depends on the particular design used.)

Logical Positivism

Logical positivism emphasizes direct observation by the senses. It is assumed that observation can be theory free. It is justification focused, assuming that greater verification yields closer approximations to the truth. This approach to knowledge was discarded decades ago because of the induction problem (see later discussion of justification/falsification), the theory-laden nature of observation, and the utility of unobservable constructs.

Relativism

Some social workers have become enamored with postmodernism, a current form of relativism. Relativists argue that all methods are equally valid in testing claims (e.g., anecdotal reports and experimental studies). It is assumed that knowledge and morality are inherently bounded by or rooted in culture (Gellner, 1992, p. 68). "Knowledge or morality outside of culture is, it claims, a chimera." ". . . meanings are incommensurate, meanings are culturally constructed, and so all cultures are equal . . ." (p.73). In *Postmodernism, Reason, and Religion*, Gellner (1992) argues that postmodernism is an affectation: "Those who propound it or defend it against its critics, continue, whenever facing any serious issue in which their real interests are engaged, to act on the non-relativistic assumption that one particular vision is cognitively much more effective than others" (p. 70). Consider for example, the different criteria social workers want their physicians to rely on when confronted with a serious medical problem compared to criteria they say they rely on to select service methods offered to clients. They rely on criteria such as intuition, testimonials, and experience with a few cases when making decisions about their clients but want their physicians to rely on the results of controlled experimental studies and demonstrated track record of success based on data collected systematically and regularly when making decisions about a serious medical problem of their own (Gambrill & Gibbs, 1999).

Gellner argues that the sole focus on cognitive meaning in postmodernism ignores political and economic influences. He argues that postmodernism "denies or obscures tremendous differences in cognition and technical power, differences which are crucial for the understand-

ing of current developments of human society" (pp. 71-72). He points out that there are real constraints in society that are obscured within this recent form of relativism and suggests that such cognitive nihilism constitutes a "travesty of the real role of serious knowledge in our lives" (p. 95). Gellner argues that this view undervalues coercive and economic constraints in society and overvalues conceptual ones. "If we live in a world of meanings, and meanings exhaust the world, where is there any room for coercion through the whip, gun, or hunger?" (p. 63).

It is ironic that a view giving so little attention to economic and political power is so warmly embraced in a profession allegedly devoted to decreasing inequalities in living conditions. One reason relativism has been embraced by many social work academics may be the prevalence of scientism and pseudoscience in the social work literature (overestimates of what questions science can address and material that has the trappings of science without the substance). In the void created, some voices predominate, throwing us back on authority, not a criterion that will protect clients' rights and allow social workers to be faithful to their code of ethics. If there is no means by which to tell what is accurate and what is not, if all methods are equally effective, the vacuum is filled by an "elite" who are powerful enough to say what is and what is not (see for example Gomory, 1997; Gellner, 1992). The "many ways of knowing" rhetoric prevents the critical appraisal of practice-related claims and protects social work from making its work and its consequences transparent.

Critical Rationalism

In critical rationalism (modern day science), the theory-laden nature of observation is assumed (our assumptions influence what we observe), and rational criticism is viewed as the essence of science (Miller, 1994; Popper, 1972; Phillips, 1987, 1992). Concepts are assumed to have meaning and value even though they are unobservable. Science is a way of thinking about and investigating the accuracy of assumptions about the world. It is a process for solving problems in which we learn from our mistakes. Science rejects reliance on authority (e.g., pronouncements by high-placed officials or professors) as a route to knowledge. Science and authority are clashing approaches to knowledge claims (White, 1896, 1993). The essence of science is creative, bold guessing and rigorous testing in a way that offers accurate information about whether a guess (conjecture or theory) is correct (Asimov, 1989). Scientific statements are those that are testable (they can be refuted). There are many

ways to do science and many philosophies of science; "knowledge is not acquired by the pursuit of a 'correct' method; rather it is what is left standing when criticism has been exhausted" (Munz, 1985, p. 72). The terms science and scientific are sometimes used to refer to any systematic effort to acquire information about a subject, including case studies, correlational studies, and naturalistic studies. Each method is subject to certain kinds of error, which must be considered in evaluating data they generate.

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Popper (1994) argues that "The growth of knowledge, and especially of scientific knowledge, consists of learning from our mistakes" (p. 93). The scientific tradition is a tradition of criticism (Popper, 1994, p. 42). It is assumed that we can discover approximations to the truth by rational argument and critical testing of theories and that the soundness of an assertion is related to the uniqueness and rigor of related critical tests. This view of science is summed up in four steps: 1) we select a problem; 2) we try to solve it by proposing a theory as a guess about what may be true; 3) we critically discuss and test our theory; and 4) the discussion and tests always reveal new problems. This view of science emphasizes error elimination through criticism: "knowledge grows by the elimination of some of our errors, and in this way we learn to understand our problems, and our theories, and the need for new solutions" (Popper, 1994, p. 159). The growth of knowledge can be viewed in its evolutionary perspective as problem solving (Munz, 1985; Popper, 1972; Radnitsky & Bartley, 1987). By testing our guesses, we eliminate false theories and learn a bit more about our problems. Corrective feedback from the physical world allows us to test our guesses about what is true or false. We learn which of our guesses are false. Evolutionary epistemologists highlight the two different histories of science: the creation of theories (e.g., through random variation) and their selection (by testing) (Munz, 1985).

Justification vs. Falsification

In a justificationist approach to knowledge develop-

ment, there is a focus on gathering support for (justifying, validating, confirming) claims and theories. Popper argues that we cannot discover what is true by induction (generalizing from the particular to the general) because we may later discover exceptions. Let's say that you see three thousand swans, and they are all white. Does this mean that all swans are white? Can we generalize from the particular (seeing three thousand swans all of which are white) to the general (all swans are white)? In fact, black swans, are found in New Zealand. Popper argues that falsification (attempts to falsify, to discover the errors in our beliefs) via critical discussion and testing, is the only sound way to develop knowledge (Popper, 1972, 1994). Confirmations of a theory can readily be found if one looks for them. Popper uses the criteria of falsifiability to demark what is or could be scientific knowledge from what is not or could not be. For example, there is no way to refute the claim "There is a God." There is a way to refute the claim "Assertive community outreach services for the severely mentally ill reduce substance abuse." We could, for example, randomly distribute clients to two different groups, one of which provides such services, and compare outcomes.

Although selection of a theory can be justified by it having survived more risky tests concerning a wider variety of hypotheses (not been falsified) compared to other theories that have not been tested or that have been falsified, it can never accurately be claimed to be "the truth."

The Role of Different Kinds of Knowledge in Evidence-Based and Authority-Based Practice

Let's now consider the role of different kinds of knowledge in evidence and authority-based practice.

Knowledge Valued in Evidence-Based Practice

Nickerson (1986) defines *knowledge* as information that decreases uncertainty about how to attain a certain outcome. It is knowledge that has survived critical tests of its efficacy in resolving problems; it is valuable in answering important practice questions. This definition seems especially pertinent to the professions. *Performance knowledge* refers to knowledge about how and when to use content knowledge in practice and how to automatize procedures so they can be used efficiently. The importance of knowledge of content was one of the major findings of the study of diagnostic decision making among physicians (Elstein et al., 1978). The "possession

of relevant bodies of information and a sufficiently broad experience with related problems to permit the determination of which information is pertinent, which clinical findings are significant, and how these findings are to be integrated into appropriate hypotheses and conclusions" were critical components related to competence in clinical problem solving (p. x). Another kind of knowledge valued in evidence-based practice concerns how to critically test claims related to important practice questions such as "Is this assessment measure valid?" "Does this parent training program help clients enhance positive parenting skills?" This knowledge can help us to avoid biases that may provide misleading conclusions. It can help us to avoid fooling ourselves that we have knowledge when we do not. The phrase *evidence-based practice* (EBP) draws attention to the kind of evidence needed to rigorously test different kinds of practice-related claims. What is needed to critically appraise data regarding a question depends on what kind of question it is (e.g., question concerning effectiveness, validity of a measure, predictive accuracy of a risk assessment measure) (see for example Gray, 1997; Sackett et al., 1997). A systematic search for research related to a problem addressed and critical appraisal of what is found will reveal one of the following:

1) Beneficial forms of care demonstrated by clear evidence from controlled trials.

2) Forms of care likely to be beneficial. (The evidence in favor of these forms of care is not as clear as for those in category one.)

3) Forms of care with a trade-off between beneficial and adverse effects. (Effects must be weighed according to individual circumstances and priorities.)

4) Forms of care of unknown effectiveness. (There are insufficient or inadequate quality data upon which to base a recommendation for practice.)

5) Forms of care unlikely to be beneficial. (The evidence against these forms of care is not as clear as for those in category six.)

6) Forms of care likely to be ineffective or harmful. (Ineffectiveness or harm demonstrated by clear evidence.) (Enkin, Keirse, Renfrew, & Neilson, 1995).

Knowledge Valued in Authority-Based Practice

Inert knowledge refers to content knowledge unaccompanied by the procedural knowledge required to put it to use in practice. Peter Munz (1985) defines *false knowledge* as beliefs that are not true and that are not questioned. This refers to "pieces of knowledge held consciously which have very little direct bearing on physical

survival" (p. 74). Such beliefs "can be held or discarded regardless of the environment in which people who hold them are living. Nevertheless, they are frequently used for a very useful function. They are used as a social bond so that societies can be formed with defined members, and these societies can survive because the defined membership makes cooperation and division of labor possible" (p. 74). In this kind of society, membership "depends on being able to give the correct answers to a catechism;" beliefs "are not available for criticism and therefore cannot be examined. They are held dogmatically" (p. 74). "In catechismic societies, people practice cognitive mercantilism and thus exempt knowledge from the pressures of a free market" (p. 75). In these kind of societies "certain axioms, values, sentiments, and beliefs remain impervious to experience and indifferent to contradiction" (p. 75). The growth of knowledge depends on the possibility of trial and error, which "depends on the presence of alternative theories which, if the old ones do not pass the trial, can be substituted and, in turn, subjected to further trial and error" (p. 76). Munz (1985) argues that the conditions in which knowledge can grow are historically rare; societies in which knowledge can grow are held together by a shared practice of criticism, not by a particular belief, not even by the belief that one ought to practice criticism.

The term *pseudoscience* refers to material that makes science-like claims but provides no evidence for them (Bunge, 1984). Hallmarks include the following:

- discouragement of critical examination of claims/arguments
- use of the trappings of science without the substance
- reliance on anecdotal experience
- lack of skepticism
- equation of an open mind with an uncritical one
- ignoring or explaining away falsifying data
- use of vague language
- appeals to belief and faith
- forwarding beliefs that are not testable

Proselytizers of many sorts cast their advice as based on science. Relying on pseudoscientific methods to inflate and promote claims is a common propaganda method in the professions. Classification of clients into psychiatric categories lends an aura of scientific credibility to this practice, whether or not there is any evidence that such a practice is warranted or that it is helpful to clients (Boyle, 1990; Kirk & Kutchins, 1992). Pseudoscience is characterized by a causal approach to evidence (weak evidence

is accepted as readily as strong evidence). A critical attitude, which Popper (1972) defines as a willingness and commitment to open up favored views to severe scrutiny, is basic to science, distinguishing it from pseudoscience. By contrast, pseudoscience may offer irrefutable hypotheses and be reluctant to revise beliefs even when confronted with relevant criticism. It makes excessive (unsupported) claims of contributions to knowledge.

Matching Knowledge and Problems

Problems differ in their complexity and in the kind of knowledge and skills that will contribute to their resolution or discovery that they are not resolvable. Consider a homeless person who seeks shelter. What knowledge would help the social worker to locate shelter? Knowledge of housing resources and eligibility requirements would be relevant. In addition, skills in diplomacy on the part of the social worker may be of value in attaining shelter. Consider next a single parent who complains of depression who lives on a marginal income. What knowledge and skills will maximize opportunities to help her? Here a social worker should be skilled in carrying out an assessment that will reveal personal and environmental factors related to her depression. The worker also should be skilled in providing services based on her assessment. He or she should be familiar with literature describing the accuracy of different assessment methods and the effectiveness of different services related to hoped-for outcomes. The less that is known about how to help clients achieve given outcomes, that is, the less domain-specific knowledge is available, the less important it is to use this knowledge in practice contexts. Conversely, the more evidence-based, domain-specific knowledge is available that contributes to attaining valued outcomes, the more important it is to have this. For example, knowledge about the degree of effectiveness of different kinds of service programs in relation to achieving specific outcomes will allow evidence-based purchase of services; it will decrease the likelihood that potential success will be under or overestimated. If specialized knowledge is available, its use, combined with nonspecific helping skills, will give the edge to those who are familiar with this knowledge and who possess related skills.

Research shows that licensing, training, and experience are unrelated to helping clients (Dawes, 1994). This suggests that social work programs give students large amounts of false and inert knowledge compared to knowledge that is required to help clients achieve outcomes they value. That is, if empathic nonprofessionals can help cli-

ents with a wide variety of problems, there is no need to complete a specialized training program, especially one that takes two years of graduate training. Let's consider the opposite problem: social workers who do not have the knowledge and skills required to help a client achieve valued outcomes but who forge ahead anyway, typically do not tell clients that they are not competent to address their troubles. Effects here are more serious since knowledge is available that, if used, would maximize the likelihood of helping clients achieve outcomes they value (e.g., be less depressed; enhance positive parenting skills). Research showing that social workers do not keep up with practice-related knowledge suggests that underuse of available knowledge is common. Research suggests that providing effective services to some clients requires considerable training (see for example Patterson and Chamberlain, 1988). As protocols are developed that are critically tested in relation to their effects on outcomes, they become more important to know about.

Evidence-Based Practice

Evidence-based practice (EBP) is an alternative to authority-based practice in the helping professions. In EBP a sharp distinction is made between claims that rely on authority or consensus and those that have survived critical tests of their accuracy. "Evidence-based practice is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individuals" (Sackett, Richardson, Rosenberg, & Haynes, 1997, p. 2) (see also Gray, 1997). It involves integrating individual practice expertise with the best available external evidence from systematic research as well as considering the values and expectations of clients. Hallmarks of evidence-based practice (EPB) include: 1) an individualized assessment; 2) a search for the best available external evidence related to the client's concerns and an estimate of the extent to which this applies to a particular client; and 3) a consideration of the values and expectations of clients (Sackett et al., 1997). Skills include identifying answerable questions relating to important practice questions, identifying the information needed to answer these questions, tracking down with maximum efficiency the best evidence with which to answer these questions, critically appraising this evidence for its validity and usefulness, applying the results of this appraisal to work with clients and, lastly, evaluating the outcome. Evidence-based practice requires an atmosphere in which critical appraisal of practice-related claims flourishes, and clients are involved as informed participants. A no-

table feature of EBP is attention to clients' values and expectations. Clients are involved as active participants in the decision-making processes. For example, evidence-informed patient choice (EIPC) entails three criteria: 1) the decision involves which health care intervention or care pattern a person will or will not receive; 2) the person is given research-based information about effectiveness (likely outcomes, risks, and benefits) of at least two alternatives (which may include the option of doing nothing); and 3) the person provides input into the decision-making process (Entwistle, et al., 1998).

In EBP social workers seek out practice-related research findings regarding important practice decisions and share the results of their search with clients. If they find that there is no evidence that a method they recommend will help a client, they so inform the client and describe their theoretical rationale for their recommendation. Clients are involved as informed participants. Consider a social worker who works in a child welfare agency and decides to refer a client to a parent training program. If this social worker is evidence based, she will seek out data regarding the differential effectiveness of different kinds of parent training programs. She will critically appraise what she finds and decide (together with her client) whether research findings apply to her client. She will fully inform her client about what she finds about the risks and benefits of different alternatives (e.g., degree of success in enhancing positive parenting skills) (see for example Macdonald, 1998). Sackett and his co-authors (1997) suggest five reasons in favor of EBP: 1) new types of evidence are being generated that can increase our ability to help clients; 2) although it is clear that we often need this evidence daily, we usually do not get it; 3) as a result of the foregoing, both our up-to-date knowledge and our practice performance deteriorate with time; 4) attempts to overcome these deficiencies via traditional continuing education programs do not improve performance; and, 5) a new approach to learning had been shown to keep helpers up to date (i.e., problem-based learning). A Center for Evidence-Based Social Services has recently been formed at the University of Exeter, England (see also Critical Appraisal Skills Program).

Getting Access to Critical Appraisals of Practice-Related Research Findings

A key hallmark of EBP is drawing on the results of systematic, rigorous, critical appraisal of research related to important practice questions such as "Is this assessment measure valid?"; "Does this intervention do more good than harm?" (see for example Sackett et al., 1997).

Busy practitioners do not have time to discover and systematically review research findings related to important practice questions. Ready access to rigorous reviews prepared by others is vital to evidence-based practice. The Cochrane Collaboration Database provides comprehensive, systematic, up-to-date, rigorous reviews of all research related to questions addressed. The Cochrane Collaboration (CC) is a worldwide network of centers designed to prepare, maintain, and disseminate high-quality systematic reviews of the effects of health care (Bero & Rennie, 1995; Chalmers, Sackett, & Silagy, 1997). Reviews are entered on the Cochrane Database of Systematic Reviews, which is available by subscription. Reviews are updated regularly and electronically disseminated for public and professional use. Laypeople have access to CC Internet communication networks on which they can raise questions and give comments regarding research reviews (see for example Oliver, 1997). Consumer involvement may reveal that outcomes of concern to clients are not addressed.

> *The Cochrane Collaboration's potential derives from its commitment to prepare and maintain reviews of research evidence which address questions of relevance to people using the health services; its use of transparent methods in attempts to minimize biases; and its openness to challenge. As a scientific enterprise, it has at least two features which are rare if not unique. Firstly, the protocols of Cochrane reviews (that is, information about the Collaboration's research in progress) are routinely made available for public scrutiny and comment. Secondly, the Collaboration has established a system for incorporating new evidence in systematic reviews prospectively, and improving or correcting them when ways of doing so are identified. . . . (Chalmers, Sackett, & Silagy, 1997, pp. 236-237)*

Cochrane Collaboration reviews are based on an exhaustive hand search for all relevant material related to a question in all languages, both published and unpublished.

> *Systematic reviews require reviewers to state clearly their decision-making rules for each stage of the process at the outset. Therefore, readers are provided with information about (i) the ways in which the reviewers identified potential studies (the search strategy); (ii) the criteria they used to determine whether or not a study should be included or excluded; (iii) the details of excluded studies; (iv) the criteria used to judge methodological quality (study validity); (v) how studies were subsequently weighted; (vi) the ways in which data were extracted; and (vii) how these were combined and analyzed. Readers are therefore in a position to make some judgment about the faith they can place in the conclusions of the review and to take issue with the reviewers if this is deemed appropriate. (Oxman & Guyatt, 1993, p. 74)*

There is a world of difference between systematic, comprehensive, critical reviews, and partial authoritarian reviews. Efforts in systematic reviews to locate all relevant research related to a question and to use and clearly describe rigorous guidelines to appraise what is found distinguishes them from authoritarian (pronouncing as true what must be demonstrated) and incomplete reviews

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(see for example Oxman & Guyatt, 1995). Incomplete, uncritical reviews may result in inaccurate conclusions about the effectiveness of a service method. For example, in a chapter on empirical approaches to case management, Moseley and Deweaver (1997) conclude that "In summary, specific types of case management interventions have proven to be helpful with elderly people, people with developmental disabilities, and people with mental illnesses" (p. 409). In fact, a critical appraisal of all randomized experimental trials of assertive community treatment programs with those labeled persistently and severely mentally ill shows such programs not to be effective (Gomory, in press). This illustrates that incomplete, uncritical reviews can lead to conclusions that mislead rather than inform readers about the evidentiary status of service methods. Moseley and Deweaver do not mention the study by Blenkner, Bloom, and Nielson (1971) showing that intensive case management services for the elderly increased mortality. Of course, exhaustive, rigorous reviews are not available regarding many prac-

tice questions. This does not negate the ethical requirement to search carefully for research findings related to important practice decisions, to critically appraise what is found and to share what is found (including nothing) with clients.

One of the most important decisions

social workers make

concerns the criteria

they rely on

to evaluate knowledge claims.

Evidence-Based Practice and Empirical Social Work Practice: Worlds Apart

When the word *empirical* is used as an adjective (e.g., in relation to assessment measures) it conveys the impression of rigor — of scientific status and clinical utility. The term *empirical* seems to be increasingly used to refer to any research regardless of whether the methodology used critically tests the question addressed (i.e., used as synonym for authority). Use of a term such as *empirical* as an adjective to inflate the status of the word modified, without any substance attached to this, is a key hallmark of pseudoscience — the use of the trappings of science without the substance (Bunge, 1984).

Authority-Based Practice

In contrast to evidence-based practice in which social workers seek out practice-related external research findings related to problems clients confront, critically appraise what they find and share what they find with clients, social workers who are authority based rely on criteria such as the opinions of others, pronouncements of "authorities," unchecked intuition, anecdotal experience, and popularity (the authority of the crowd). An embrace of relativism throws us back on authority as a guide, as does reliance on intuition about what works. Although intuition is a vital source of guesses about what may be true, it cannot tell us what in fact is the case regarding the accuracy of assessment measures or the effectiveness of service methods. Nor do consensus, popularity, or anecdotal experience provide sound criteria regarding questions of effectiveness or validity of assess-

ment measures. Experience does not necessarily result in improved performance. In fact, it may have the opposite effect. Experience does not offer systematic data about what works with what clients and what problems. In EBP, in which evidentiary criteria are sought and the results of this search is shared with clients, clients are involved as informed participants (in contrast to uninformed or misinformed).

Consequences of Different Views of Knowledge

Thinking about knowledge and how to get it is a subject of vital interest in helping professions such as social work because of the consequences for clients, taxpayers, and social workers. One of the most important decisions social workers make concerns the criteria they rely on to evaluate knowledge claims. The criteria used influences selection of assessment, intervention, and evaluation methods. Different kinds of knowledge are emphasized in EBP and in authority-based practice with significant implication for clients, social workers, and taxpayers. Consequences of authority compared to evidence-based decisions for clients include the degree to which they are informed (in contrast to uninformed or misinformed) and the extent to which practice methods suggested are evidence based. Given that social workers are uninformed (do not seek out research related to important practice questions and critically appraise it), they cannot inform their clients. In contrast to EBP in which clients are involved as informed participants, authority-based practice relies on criteria such as consensus and popularity. The evidentiary status of recommended methods is either not shared with clients or is misrepresented (usually inflated).

A consequence of bogus claims about what helps or harms clients is continued mystification on the part of both helpers and clients in relation to their evidentiary status. The inflation of knowledge claims (puffery) is a key propaganda strategy (Rank, 1984). Another negative result of hyperbole is lost opportunities for pointed inquiry; if you think that something has been critically tested, you may not investigate it. Furthermore, there is a lost opportunity to educate professionals and laypeople alike, regarding the differences between pseudoscience, scientism, and science. If we rely on questionable criteria for evaluating knowledge claims, such as consensus, clients may be harmed rather than helped, false hope may be created, harmful side effects experienced, and effective methods foregone. The history of the helping professions shows that good intentions will not protect clients from harm (Ofshe & Watters, 1994; Silverman, 1998; Szasz,

1994; Valenstein, 1986). For example, consider the results of accepting claims of effectiveness regarding facilitated communication based on nonexperimental data (e.g., anecdotal case reports) that were later shown to be false based on controlled research findings (Jacobson, Mulick, Schwartz, 1995).

Conclusion

Honoring our own code of ethics to inform clients and to draw on practice-related research will help us to have the courage and integrity to challenge puffery, avoid propagandistic appeals, and value truth over winning arguments. Embracing a justification approach to knowledge in which we seek support for our views rather than rigorously try to falsify them, encourages authority-based decision making. One option is to prepare books for clients critically reviewing the literature in relation to key areas of concern in social work (e.g., child welfare) that describe what has been tested to what effect and what has not been tested (see for example Enkin et al., 1995). Another is to stress critical thinking in foundation practice courses and research courses (see for example Gambrill, 1997; Gibbs & Gambrill, 1999). Moving to a falsification approach to knowledge that emphasizes that we can only discover what is false would have many benefits, such as encouraging correct appraisals of current approximations to truth.

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