Ethical Deliberation: A Foundation for Evidence-Based Practice

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ABSTRACT

Infusing evidence-based practice (EBP) into the clinical setting implies that professionals use evidence that is relevant and credible, maintain their pursuit of best current knowledge, respect their clients' preferences and values, and keep these clients and their families appropriately informed about their treatment options. Thus, rational and judicious EBP must be guided by speech-language pathologists' or audiologists' ethical principles of beneficence, non-maleficence, justice, and autonomy. In this article, we will affirm the centrality of ethical reasoning in EBP by describing what it means to be a professional as reflected in our Code of Ethics, reviewing the principles of ethics that underlie clinical decision making, and demonstrating how an ethical framework can and should provide the context in which EBP is conducted.

KEYWORDS: Evidence-based practice (EBP), beneficence, justice, autonomy, non-maleficence

Learning Outcomes: As a result of this activity, the reader will be able to (1) describe what it means to be a professional; (2) identify the principles of ethics that underlie the American Speech-Language-Hearing Association Code of Ethics; and (3) explain how principles of ethics guide clinical decision making and lead to evidence-based practice.

Every man should expend his chief thought and attention on the consideration of his first principles—are they or are they not rightly laid down? And when he has duly sifted them, all the rest will follow.¹—Socrates Evidence-based practice (EBP) is described as "the integration of clinical expertise, best current evidence, and client/patient perspectives to provide high-quality services reflecting the interests, values, needs and choices

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of the individuals we serve."² This definition implies that: the evidence used is relevant and credible; professionals are knowledgeable and fair and respect their clients' preferences and values; and those served are appropriately informed about their treatment options. Thus, rational and judicious EBP must be guided by speech-language pathologists' (SLPs) or audiologists' ethical obligations as professionals, the unbiased interpretation of the science upon which clinical actions are based, and the individual client's ethical rights to self-decision. In this article, we affirm the centrality of ethical reasoning in EBP by describing what it means to be a professional as reflected in our Code of Ethics, reviewing the principles of ethics that underlie clinical decision making, and demonstrating how an ethical framework can and should provide the context in which EBP is conducted.

WHAT IT MEANS TO BE A PROFESSIONAL

Beabout and Wennemann³ provide a threepart description of what it means to be a professional. First, they assert that a professional is someone with a skill that has been acquired through extended, specialized training. In the American Speech-Language-Hearing Association (ASHA) Code of Ethics,⁴ there are several references to the ethical significance of the knowledge and skills SLPs and audiologists achieve through their academic and clinical education. For example, Principle of Ethics II notes, "Individuals shall honor their responsibility to achieve and maintain the highest level of professional competence and performance." Principle II, Rule B further specifies that "individuals shall engage in only those aspects of the professions that are within the scope of their professional practice and competence, considering their level of education, training and experience." Rule C affirms that these specialized skills need to be continuously developed through "lifelong learning." Two additional points illustrate some of the specific ethical obligations that arise from the specialized training of SLPs and audiologists. Principle I, Rule I reminds SLPs and audiologists to "evaluate the effectiveness of services

rendered and of products dispensed, and [to] provide services or dispense products only when benefit can reasonably be expected." Principle II, Rule E emphasizes that SLPs and audiologists are responsible for ensuring the adequacy of equipment used in clinical, research, and scholarly activities.

The second aspect of being a professional involves having an intellectual grasp of one's training so as to facilitate explaining an area of expertise to others. Here we begin to see a distillation of various types of jobs and workers. Although many jobs today may require specialized training and certification, not all of that training is aimed at helping workers actually understand what they are doing in a particular job or why they do it. Newman-Ryan states, "Skills, whether technical or intellectual, are merely the instruments and not the essence of a profession."5 True professionals do not just know what job to do, but also how and why they perform certain tasks related to a job. When an SLP decides to deliver a particular treatment approach, it is insufficient to only know how to perform the procedures of the treatment; the SLP must also be able to rationally explain why the treatment was selected for a particular client at a certain point in time.⁴ Thus, it is our use of EBP in conjunction with our adherence to the Code of Ethics that elevates us as professionals and encourages a strong public trust in the profession.

Principle of Ethics III⁴ most fully captures this aspect of professionalism when it states, "Individuals shall honor their responsibility to the public by promoting public understanding of the professions, by supporting the development of services designed to fulfill the unmet needs of the public, and by providing accurate information in all communications involving any aspect of the professions." Principle III, Rule F reinforces the ethical obligations of SLPs and audiologists regarding honesty in presenting their professional expertise publicly, and Rule G notes that this obligation extends even to advertising and the public marketing of professional services. Regarding direct, individual professional service, Principle I, Rule H states, "Individuals shall fully inform the persons they serve of the nature and possible effects of services rendered and products

dispensed, and they shall inform participants in research about the possible effects of their participation in research conducted."

The first aspect of professionalism addresses the education and clinical hours SLPs and audiologists need to acquire to practice in the professions. The second aspect addresses how one successfully and ethically shares those skills with people in need—that is, what comes out of the professions. Both are critical in EBP.

The third aspect of being a professional described by Beabout and Wennemann³ is the point that truly delineates the notion of professionalism addressed in this article. True professionals do not simply acquire knowledge for their own sakes, nor do they perform their jobs purely out of self-interest. Professionals, in the sense that we are developing here, put themselves through rigorous education to serve others. This final characteristic is embedded in the etymology of the term professional. The word comes from the Latin root, professio, which literally means "I promise" or, with more intensity, "I vow." The promise is to use the skills acquired through specialized training to help others. This attribute of professionalism takes pride of place in the Code of Ethics as Principle of Ethics I⁴: "Individuals shall honor their responsibility to hold paramount the welfare of persons they serve professionally or who are participants in research and scholarly activities." Principle I, Rule B indicates that this means professionals are obligated to "use every resource, including referral when appropriate, to ensure that high-quality service is provided." Also, in promoting the welfare of those being served, Rule C emphasizes: "Individuals shall not discriminate in the delivery of professional services or the conduct of research and scholarly activities on the basis of race or ethnicity, gender, gender identity/gender expression, age, religion, national origin, sexual orientation, or disability." Rules N through R all speak to various ways SLPs and audiologists must promote the well-being of those served.

This broader perspective on professionalism helps us to understand why professions seek to guide and inform the behavior of their members through professional codes of ethics and conduct. That is, because we must be careful to avoid exploiting the people we serve, professionals are called to a higher standard of conduct than others in society. As professionals, SLPs and audiologists are expected to protect the rights of individuals with communication disorders. Catt⁶ and Pellegrino and Thomas⁷ remind us that professionalism carries with it the obligation to be loyal to those we serve, to hold their interests paramount over our own, and to adhere to the knowledge base of our profession. These characteristics of professionalism, which are reflected in our own Code of Ethics, also form the cornerstone of evidence-based clinical decision making.

ETHICAL PRINCIPLES THAT UNDERLIE CLINICAL DECISION MAKING

Guidance for clinical decision making can be found in the ethical principles that underlie our professional Code of Ethics and ultimately support EBP. These are the principles of autonomy, non-maleficence, beneficence, and justice. Beauchamp and Childress⁸ provide descriptions of these core ethical principles. Regarding respect for autonomy, they note, "To respect autonomous agents is to acknowledge their right to hold views, to make choices, and to take actions based on their personal values and beliefs."8 They add, however, that true respect requires more than just a passive attitude of noninterference with other people. Rather, respect for autonomy requires "building up or maintaining others' capacities for autonomous choice while helping to allay fears and other conditions that destroy or disrupt autonomous action."8 To use her or his specialized knowledge and skill to serve others in need, a professional must first and foremost respect the one being served as a person of equal worth and dignity. This is performed, in part, by respecting the autonomous decision-making ability of individuals. Many aspects of the ASHA Code of Ethics reflect this principle. The Rules of Ethics for Principle I exemplify the concern of the profession for upholding active respect for the autonomy of those being served. This includes, for example, not discriminating in

the delivery of services or other professional activities (Rule C), fully informing people of the nature and possible effects of services provided and products dispensed (Rule H), and obtaining free and informed consent for any research conducted (Rule P).⁴

The principle of non-maleficence refers to the "obligation to not inflict harm on others."8 Once again, many statements in our Code reflect this important concern for avoiding harm to those we serve, but the Rules of Ethics under Principle IV⁴ in particular lay out several direct actions that SLPs and audiologists must avoid to prevent doing harm to those who have put their trust in these professions. We are reminded not to engage in any activities that involve fraud and deceit (Rule C); to avoid any form of harassment (Rule D) or other abuses of the practitioner's power over clients, students, or research participants (Rule F); and not to engage in discrimination at any level (Rule K). Also, to avoid potential harm to those being served, SLPs and audiologists must always exercise independent professional judgment when providing professional services (Rule J).⁴

The principle of non-maleficence presents what are termed negative actions-that is, actions that we should not engage in or perform. But ethics and professionalism require more than merely avoiding certain actions; we are also required to "act for the benefit of others."8 This is reflected in the principle of beneficence, which underscores the primary component of professionalism to serve and promote the well-being of others. Just as respect for autonomy requires more than a merely passive stance toward others, genuine beneficence presents professionals with positive obligations to those being served. These are found woven throughout our Code, but are captured most distinctly in Principle of Ethics II,⁴ which calls SLPs and audiologists to "honor their responsibility to achieve and maintain the highest level of professional competence and performance." Finally, the principle of justice generally requires that "equals must be treated equally, and unequals must be treated unequally."⁸ The overriding idea is one of treating others fairly. However, as Beauchamp and Childress note, the general principle of justice "identifies no particular respects in which

equals ought to be treated equally and provides no criteria for determining whether two or more individuals are in fact equals."8 That is, the general principle⁴ provides us with no actual guidance about how to apply justice. Basic fairness in the practice of speech-language pathology and audiology requires being honest about one's professional qualifications (Rule A), not misrepresenting research or information related to services provided (Rule D), and avoiding fraud in connection with professional activities (Rule E). Honesty is also mandated in all public statements regarding the profession and one's individual professional services (Rules F and G). Finally, the Code of Ethics specifies that treating people equally in the profession requires SLPs and audiologists to focus on the interests of those being served and not on any personal or financial stakes that would constitute a conflict of interest (Principle of Ethics III, Rules B and C).⁴ As one reviews the Code of Ethics, it is apparent that every principle and rule relates to or embodies one of these four core ethical principles, as well as some aspect of professionalism (see Table 1). It is this solid foundation of our profession that makes EBP an imperative.

HOW AN ETHICAL FRAMEWORK PROVIDES THE CONTEXT FOR EBP

Since 2005, applicants for the Certificate of Clinical Competence (CCC) have been required to demonstrate "integration of research principles into evidence-based clinical practice."9 We assert that the three tenets of professionalism and four pillars of ethics underlie evidence-based decisions about assessment, prognosis, treatment, discharge, and prevention (see Fig. 1). Indeed, EBP is a clinically oriented, client-centered process that "begins with an acknowledgement of uncertainty,"10 and our responsibilities to ethical practice and professionalism require that we continuously update our knowledge and skills to provide the best possible, competent care to those we serve.

Timmermans and Mauck¹¹ contend that the purpose of EBP is to provide a scientific foundation for clinical work. A major tenet of

	Ethics Principle	Rules Related to Professional Tenets	Rules Related to Ethical Tenets
Ι.	Individuals shall honor their responsibility to hold paramount the welfare of persons they serve professionally or who are participants in research and scholarly activities, and they shall treat animals involved in research in a humane manner.	Able to explain skill to others • Rule H Use skills to serve others • Rules B, C, F, G, N, O, P, Q, R	Autonomy • Rules C, H, P
11.	Individuals shall honor their responsibility to achieve and maintain the highest level of professional competence and performance.	Acquire skill through training • Rules B, C, D, E	Beneficence • Rules B, C
111.	Individuals shall honor their responsibility to the public by promoting public understanding of the professions, by supporting the development of services designed to fulfill the unmet needs of the public, and by providing accurate information in all communications involving any aspect of the professions, including the dissemination of research findings and scholarly activities, and the promotion, marketing, and advertising of products and services.	Able to explain skill to others • Rules F, G, I	Justice • Rules A, B, C, D, E, F, G
IV.	Individuals shall honor their responsibilities to the professions and their relationships with colleagues, students, and members of other professions and disciplines.		Non-maleficence • Rules C, D, F, K, J

	Table 1	The Code of Ethics Linked to Tenets of Professionalism and Ethics	
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EBP is that scientific research can offer an objective, factual, and rigorous approach to support or refute clinical practices.^{12,13} The desire to use only the best current evidence from clinical research has led to a ranking of research designs for questions of diagnosis, prevention or treatment efficacy.¹² Treatment efficacy research uses rigorous methodologies to provide evidence of causality and conclude that participants in a study improved only as a result of the applied intervention.¹⁴ The strength of evidence is viewed as a function of the experimental methodology.^{12,15} Definitive evidence of efficacious treatment is gleaned from replication of rigorous research methods, including randomized controlled trials (RCTs) or single-subject experimental designs using systematic review or meta-analysis techniques

to summarize a body of evidence.^{12,16,17} For example, Ylvisaker et al¹⁸ recommended practice standards that behavioral interventions for children and adolescents with behavior disorders following traumatic brain injury should be implemented, based on a summary of 65 studies. Results of such synthesis are then applied to ethical, professional decision making for both individual clients and policy decisions about treatment populations.¹⁹ Interestingly, many limitations of EBP have been espoused in the literature, leaving the practitioner with questions about why the research was conducted or the clinical services provided, how the research applies to individual clinical decisions, who participated, how to interpret outcome results, where the investigation or intervention took place, what to do when evidence is not available,

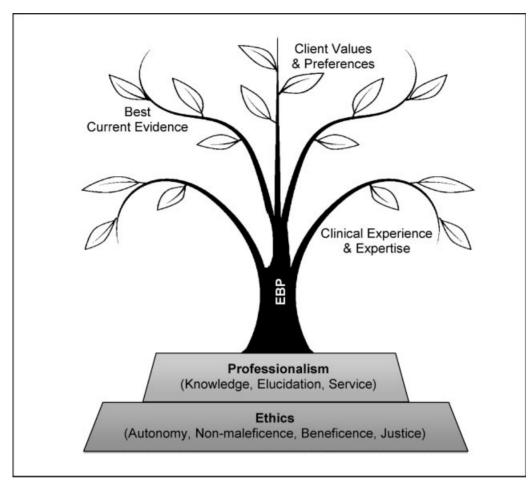


Figure 1 Evidence-based practice (EBP) in the context of ethical practice and professionalism.

and how to determine the benefits, costs, and risks related to the application of the findings. Each of these queries has ethical dimensions and professional implications.

WHY THE RESEARCH WAS CONDUCTED OR THE CLINICAL SERVICES PROVIDED

EBP is based in part on scientific research. Unfortunately, sometimes the rationale for determining which interventions to assess and on whom may depend more on *extrinsic* factors, such as the level of consumer interest, sources of funding, and/or the political, economic, or social environment than on a client's clear clinical need. The motivation behind a particular study, albeit curiosity, compassion, or commercial interest, provides an important context for understanding the results as well as any changes that occur for the individual with a communication disorder. Of significance, the nature of and support for our research and clinical services, be it consciously or inadvertently, may influence the outcome. Whether we are self-employed or work for others, the basis for and standard of our practices are held to the same ethical principles and rules. In fact, our ethical standards, clinical experience, and expertise allow us as professionals to critically appraise research evidence and to develop "conscientious, explicit, and judicial use of current evidence in making decisions about the care of individual[s]."¹² Without such appraisal, professionals risk omission of important research findings or false application of unfounded outcomes, which may lead to ethical quandaries.

HOW THE RESEARCH APPLIES TO CLINICAL DECISIONS FOR A SPECIFIC CLIENT

The evidence-based clinician faced with the ethical decision of selecting the best intervention option will ask the rational question, which interventions are appropriate for this client at this point in time for a specific purpose?¹⁷ Although many have espoused the superiority of the RCT as a gold standard for documenting evidence of treatment efficacy,^{9,12,13} several authors have also elucidated the shortcomings of large-scale RCT evaluations for individualized clinical decisions.^{12,20,21} In its truest form, the RCT evaluates the benefits of a specific intervention compared with a no-treatment comparison group of similar clients, with random assignment to groups. Application of group average scores ignores the important variable of individual difference or individualized response to intervention. On the other hand, ethical decisions are grounded in individual contexts, and clinicians need access to information that will support such unique decision making; thus, ethical deliberation, coupled with evidence, provides flexibility in applying EBP guidelines to a particular person in a unique situation. Evidence from single-subject experimental designs, evidence of effectiveness in actual clinical practices, investigation of active ingredients or principles of therapy, and investigation of factors that predict high or low response to intervention will all help support ethical, evidence-based, individualized decision making.

KNOW WHO IS INVOLVED

The absence of data about population characteristics and/or social constructs such as race, ethnicity, and disability category restricts the useful application of research findings. Evidence is limited to individuals who share characteristics with those who participated in a study, yet research within diverse backgrounds is scarce. Rogers stated that "for disadvantaged groups, to receive the newest and best treatments requires evidence, but exclusion from research prevents the generation of evidence and hence access to treatments."¹⁹ The personal traits, experiences, and values of those engaged in research, as well as those who develop clinical questions and administer the treatments, may influence the ethical utility of results in clinical work.

WHAT THE OUTCOMES MEAN

Although the best current research evidence from practice guidelines, systematic reviews, or meta-analysis may document that an intervention is efficacious, one must also ask the questions, for whom, and for what purpose? The purpose of the research study will drive decisions about how to assess for potential changes in outcome variables. An important consideration when reading and evaluating research is to consider the type of outcome measures. The World Health Organization's International Classification of Functioning, Disability and Health²² provides a useful framework for considering outcomes of SLP and audiology interventions. Our disciplines have traditionally focused on changes at the level of body functioning (e.g., improvement in auditory discrimination, speech fluency, swallowing efficiency, sustained attention, decoding for reading). Although these outcomes are important in understanding the effects of our interventions, they are insufficient to document evidence of functional, meaningful change for our clients, which is the ultimate goal of our interventions. Thus, clinicians should also search for evidence of change at the level of activity completion (e.g., ability to converse with others, read and comprehend a story, ingest a meal efficiently, or recall and complete homework) and life participation (e.g., quality of life, graduation from high school, gainful employment, or relationships with peers and family) that result from our interventions and guide our ethical decisions.

LOCATION OF INVESTIGATION AND INTERVENTION

Approximately 53% of SLPs work in the public schools,²³ yet a significant amount of research with pediatric populations occurs outside of this setting. Some workplace cultures may

welcome or support research and innovation in treatment approaches more than others. That systemic issues have not been addressed in the literature may not mean that they are unimportant but just that they are not yet understood. When minimal evidence exists, it is possible that practices regarding the meaningful access to and availability of services may be influenced more by the workplace than by research evidence. In the face of little or questionable empirical evidence, policies regarding the conduct of research, the type of intervention used, timing of service (at what age it may be offered), duration (number of sessions), source and manner of payment for services rendered (private pay or insurance), and who is responsible for providing the service (roles and boundaries) may be based on resource allocations, professional philosophies and orientation, and/or the general workplace climate²⁴

WHAT TO DO WHEN EVIDENCE IS UNAVAILABLE

Professionals must search for, appraise, and incorporate the best current evidence to support or refute clinical decisions. As stated earlier, the EBP literature emphasizes evidence of treatment efficacy as the gold standard. However, evidence takes many forms, including: prefiltered evidence such as meta-analysis, systematic reviews, and practice guidelines; individual studies that empirically evaluate interventions; and theoretical support from related population research, basic science investigations, and descriptive research into the nature and progression of communication disorders. The best current evidence should be considered on a hierarchy, with clinicians seeking out prefiltered evidence first, when available.¹² Prefiltered evidence that uses rigorous methods can provide a distilled summary of best practices for the busy clinician because time and limited ability to critically appraise the research literature are cited as barriers to EBP.²⁵ Prefiltered evidence can be located online (e.g., http://www.asha.org/members/ebp/ compendium; http://www.ancds.org; http://ies.ed.gov/ncee/wwc) but is not always available, either because too few individual empirical

studies exist to produce a summary or simply because the review has not yet been completed.

The second type of evidence practitioners should seek out is research from individual, empirical evaluations. Unfortunately, there remains a paucity of experimental reports of clinical outcomes for many clinical questions. Perhaps a critical but neglected question is whether there is evidence to *disprove* or document that an intervention is *ineffective*? A more common question is, how should we proceed in the absence of evidence that demonstrates effectiveness of intervention?

Although the Code of Ethics, CCC, and definition of EBP stress the importance of best current evidence, there has been little discussion about the role of theoretical evidence in supporting or justifying our most frequent clinical decisions. Bernstein Ratner²⁶ and Ylvisaker et al¹⁷ emphasize the important role of theory, logic, and rational thought in designing and adapting individualized interventions for daily use. A logic model²⁷ provides a concrete way to conceptualize the theoretical mechanisms of why an intervention option should work for a given client. In program evaluation, a logic model specifies the goals of an organization, the activities undertaken to reach those goals, and the short-term and long-term outcomes. Applied to clinical management, a logic model clearly delineates the relation between the ethical principles, the goals for an individual client, the intervention procedures, and the immediate and long-term outcomes (see Table 2). Delineating these specific aspects of a management plan should help practitioners consider the theoretical underpinnings of treatment judiciously. An example applied to speech sound intervention for an 8-year-old child with severe apraxia of speech and a limited oral repertoire is applied to a logic model in Table 2.

Thus, clinicians are rarely faced with the conundrum of *no* available data. The ethically responsible, evidence-based clinician will systematically and logically evaluate the best current evidence on a hierarchy, employing theory and rationalism when empirical evidence of efficacy has yet to be published to explicitly integrate our up-to-date knowledge of theory,

Table 2 A Logic Model Applied to Tr Management Options, and Outcomes	plied to Treatment of Childhoo Outcomes	Table 2 A Logic Model Applied to Treatment of Childhood Apraxia of Speech to Delineate Theoretical Relations between Intervention Target, Management Options, and Outcomes	Theoretical Relations be	tween Intervention Target,
Ethical Principles	Goal(s)	Activities (Intervention)	Immediate Outcome(s)	Immediate Outcome(s) Long-Term/ Functional Outcome(s)
Beneficence, non-maleficence,	Beneficence, non-maleficence, 1. Child will verbalize 10 new	Integral stimulation with intensive,	Improved verbalization of	Improved verbalization of Improved self-regulation to direct
autonomy, justice	functional words.	distributed practice to encode new	target words	interactions; improved rapport
		motor plans using relevant and		with parents
		salient target words		
Beneficence, non-maleficence,	Beneficence, non-maleficence, 2. Child will request information Introduce AAC system and train	Introduce AAC system and train	Improved ability to	Improved ability to direct own care;
autonomy, justice	with AAC device.	procedures and strategies to	request items	increased quality of interactions
		efficiently use during opportunities		with peers
		to request		

AAC, augmentative and alternative communicatior

disorders, and models of processing.^{17,28-30} It is suggested that clinicians proceed from a practice-based evidence (PBE) perspective when replicated, rigorous evidence of efficacy in a population similar to a particular client is unavailable.³¹ PBE provides a framework to systematically investigate one's own practice through careful tracking of outcomes data with theoretically supported measures and interventions and can provide rational, explicit, empirical evidence that clinical decisions affect a client.^{17,32} Olswang and Bain³³ provide a tutorial on effective data collection strategies that can support PBE, including a framework for considering generalization, maintenance, and control data probes in addition to routine session data. Application of PBE within an ethical decision-making framework can help to (1) demonstrate a therapeutic effect, (2) contribute to understanding the active mechanisms of change that account for any potential change, and (3) disseminate findings as empirical evidence.

DETERMINING BENEFITS **AND RISKS**

Rogers¹⁹ makes several provocative observations about the fairness of evidence-based medicine (EBM). We are cautioned to consider factors including "need, benefit, equity (of access, of opportunities, of outcomes) or personal preference."¹⁹ Rogers contends that EBM often focuses exclusively on a person's capacity to benefit and does not consider the broader importance of that person's health problems. According to Rogers, "EBM turns our attention away from social and cultural factors that influence health and focuses on a narrow biomedical model of health and disorders that is primarily individualistic."19 Whether we agree with this interpretation to explicate not, it seems the or importance of and need for ethical reasoning in EBP.

FINAL THOUGHTS

It can be argued that scientific evidence guides our decisions about treatment with a specified population but does not determine the treatment used with a particular person. Thus, it may be our ethical principles from which "all the rest will follow."1 Ethical reasoning should not be saved for those times when we feel we are facing ethical uncertainties or misunderstandings. Clinical encounters are complex and replete with potential for conflicts of values, opinions, and "facts." An ethical and professional orientation must be the "chief thought and attention"1 and the basis for evidencebased clinical decision making. With this as a starting point, the three components of EBP may be fortified and equalized by the four ethical principles. That is, professionals who engage in ethical decision making will integrate the best current evidence (from empirical research, theory, and practice-generated data), considering the beneficence and non-maleficence of these methods, with client preferences using professional, up-to-date knowledge, expertise, and respect for client autonomy to prudently apply the evidence to individual clinical decisions with justice and within the confines of our available resources.

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