Clinical Forum

Epilogue

Some Final Thoughts on EBP

There are many aspects of this clinical forum that I could focus on in this concluding note. It goes without saying that all of the contributors are committed to the principles of evidence-based practice (EBP) and improving treatment outcomes for children with speech, language, and literacy impairments. What also should be apparent, however, are the different approaches the various contributors take toward achieving these goals and implementing EBP. As discussed by Bernstein Ratner, implementation of EBP is not particularly straightforward because there is no uniform agreement about acceptable forms of evidence, the influence of nonresearch factors, and the role that practitioner experience and competence play in achieving treatment outcomes. One’s views about these issues will significantly impact not only the way in which EBP is implemented, but also what is considered EBP and what is not. In this afterward, I will consider a central question of EBP—how experimental validation is defined—to illustrate the difficulty involved in implementing EBP.

WHAT DOES EXPERIMENTAL VALIDATION MEAN TO YOU?

In the article I wrote for this clinical forum, I argued that the “what works” epistemology that underlies teaching and clinical practice (Kamhi, 1999, 2004; Stanovich, 2000) is consistent with a central tenet of EBP: The strongest evidence for a clinical decision is experimental validation with the particular client (Ylvisaker, 2004). Ylvisaker went on to say that this evidence could come in the form of trial therapy, diagnostic teaching, or dynamic assessment. Even though I thought Ylvisaker was quite clear about the kind of evidence required for experimental validation, two of the reviewers of my article had quite different views about what Ylvisaker meant and what experimental validation should entail.

One reviewer felt that Ylvisaker’s argument implied that “clinicians would need to implement, at a minimum, carefully controlled intervention studies in order to empirically validate their intervention procedures.” The absence of such studies, this reviewer continued, “leaves this framework open to the same type of anecdotal reports coming from proponents of oral–motor therapy.” Ann Tyler, one of the other reviewers, and the discussant of my paper, suggested that it would be important to show that the treatment provided, not some other variable, was primarily responsible for the behavioral change. Tyler did not think that experimental validation required carefully controlled studies as suggested by the first reviewer. In the revised version of my article, I included Tyler’s comment to show that what constitutes experimental validation is open to interpretation, even though I agree with Ylvisaker’s view.

Although EBP is often defined as the integration of the best research with clinical expertise and client values (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000), the essence of EBP for most researchers is empirical evidence from carefully controlled studies (e.g., Dollaghan, 2004; Gillam & Gillam, this issue). In other words, the first reviewer was absolutely right: Experimental validation does in fact imply carefully controlled intervention.

ABSTRACT: Purpose: In this afterward, I will offer some final thoughts on this clinical forum by considering a central question of EBP—how experimental validation is defined—to illustrate the difficulty involved in implementing EBP.

Method: The comments draw on critical reviews I have received on my article in this forum and conversations I have had with professional colleagues about EBP.

Conclusion: Like most scientific constructs, EBP is open to different interpretations. At their worst, these differences have the potential to polarize clinical practice. The hope, however, as Kent and Fey have expressed, is that articles and commentaries such as these will serve as the basis for discussion and even argument among clinicians and researchers as we attempt to define a philosophy and implementation of EBP suited to our profession.

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studies. Because most clinicians are unlikely to conduct such studies, they are left with two options: They can use a treatment approach that has already been experimentally validated, or they can use one that has not been experimentally validated. There should be no middle ground with experimental validation; a treatment approach either has the appropriate experimental validation or it does not. Defining EBP in this way means that most clinicians will be unable to contribute to the treatment efficacy knowledge base. Clinical experience and insights about treatment efficacy will be viewed as anecdotal reports that have not been experimentally validated. Significant changes in clinical practice will only occur when the research community conducts the necessary studies to experimentally validate or invalidate novel or existing treatment approaches.

Does anyone want to practice in a world where clinicians are unable to validate their treatment decisions? This is, of course, a rhetorical question. Yet, when Ylvisaker, I, or anyone else attempts to broaden (read: weaken) the definition of experimental validation to include trial therapy, diagnostic teaching, or dynamic assessment, we open ourselves up to the accusation of accepting anecdotal reports as evidence of behavior change. One unsatisfactory way out of this dilemma is to allow the standards of experimental validation to be different for researchers and clinicians. “EBP for researchers” would require carefully controlled studies, whereas “EBP for clinicians” would allow clinicians to experimentally validate treatments with trial therapy, diagnostic teaching, dynamic assessment, or other assessments that measure treatment outcomes. Tyler’s view of experimental validation would be considered “EBP for clinicians” because it does not involve a well-controlled study.

Could these two EBP worlds co-exist? One could make a strong case that they already do exist and will continue to co-exist as long as there are researchers and clinicians. The American Speech-Language-Hearing Association and many scientists are committed to infuse the principles of EBP into clinical practice. The articles in this clinical forum are one more attempt to do this. My concern, however, is that the righteous fervor that sometimes accompanies different views about what constitutes experimental validation has the potential to polarize clinical practice.

We have already seen this polarization occur in the area of fluency disorders. The recent heated exchange of letters in response to a clinical forum on language research and stuttering shows that this polarization is not just a minor academic disagreement (Ingham, 2005; Ratner, 2005; Ryan, 2006; Weiss, 2006). The different views about EBP expressed by the eight contributors to this forum pale in comparison to the ones that exist in the area of fluency disorders. This does not make our differences any less troubling, however. There are already signs of polarization occurring in child language and literacy with the increased use of programs like Fast ForWord (Scientific Learning, 2006), Earobics (Cognitive Concepts, 2006), LiPs (Bell, Lindamood, & Lindamood, 1999), Wilson (Wilson, 2002), and Language! (Greene, 2005). Even though one can raise legitimate questions about the level of experimental validation supporting these programmatic interventions, they have more experimental validation than most of the nonprogrammatic approaches that are used with our clients. In the last year or so, I have met more than a handful of clinicians who use published programmatic approaches exclusively because they feel that these programs are more effective than the nonprogrammatic ones they used in the past. Programs also save time in treatment planning that allows clinicians to see more clients.

I have also encountered a number of clinicians who have strong negative reactions to EBP. These clinicians prefer tailoring interventions to the specific needs of individual children and feel that EBP is not consistent with individualized treatments. I share Ylvisaker’s view with these clinicians, but most do not find it particularly convincing because they associate EBP with well-controlled studies. Like many others, they do not think that validation with individual clients is enough for true experimental verification. Some of these clinicians have strong biases against certain programmed treatment approaches because of their implicit association with EBP, but others have no problem using treatment programs in conjunction with individualized instruction.

There is one other problem with EBP that I would like to mention. In the past year, I have witnessed the proliferation of what I call “conversation-stopper” comments to justify the use of a treatment approach. Examples include, “I’m using this approach because there is good/high-level research evidence to support it.” “I used this approach because it has been proven to be effective.” “So and so have shown that this treatment approach works or works better than….” These comments are conversation stoppers because in most settings, it would be inappropriate to ask theoretical and methodological questions about the study. The fact that there is supposedly good or high-level evidence is sufficient in itself. As pointed out throughout this forum, this “evidence-only” based view of EBP not only ignores the importance of nonresearch factors on treatment outcomes, but also assumes that the systems for rating levels of evidence are straightforward and reliable.

Although I have focused on some of the problems with EBP in this afterword, I agree with Fey (this issue) that these problems are all tractable and must be addressed head on. Like most scientific constructs, EBP is open to different interpretations. Some of these different interpretations have been reflected in this clinical forum. At their worst, these differences have the potential to polarize clinical practice. Some interpretations of EBP also can evoke strong negative reactions because they are seen as tacitly endorsing programmatic treatment approaches and being incompatible with individualized treatment approaches. The hope, however, as Kent and Fey have expressed, is that articles and commentaries such as these will serve as the basis for discussion and even argument among clinicians and researchers as we attempt to define a philosophy and implementation of EBP that is suited to our profession.

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