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Evidence Based Practice (EBP): Talking Points

I admire those who search for the truth. I avoid those who find it.

—French Motto

The intent here is not to demonize EBP—any approach can be just the ticket for a particular client—but rather expose its limitations because it is often wielded as a mandate for competent and ethical practice. Such edicts are gross misrepresentations of the data and blatant misuses of the evidence.

1. **What exactly is an evidenced-based practice?** It usually means an approach that has established itself better than placebo or treatment as usual in two clinical trials. Such demonstrations are nothing to write home about; intervention of nearly any kind has demonstrated its superiority over placebo for 50 years! This research tells us nothing that we already do not know: Treatment works. So, when Multisystemic Therapy (MST) says that it is an evidence based practice, it only means that it is better than no treatment or treatment as usual, *not any other systematically-applied form of treatment*. When Ontario implemented MST province-wide, they found that MST was no better than treatment as usual (probation officer visits in this case) as did an independent meta-analysis conducted by the Cochrane/Campbell foundation. Is MST worth the cost of implementation?
2. **What does the “evidence” touted by proponents really tell us?** Treatment is on average four times more effective than no treatment and twice as effective as placebo. So when Functional Family Therapy (FFT), for example, reports in one study that the no treatment group had a 41% recidivism rate, while FFT achieved 9%, that’s great but nothing more than would be expected. Any approach

systematically applied by individuals believing in what they are doing will be similarly better than no treatment. FFT has never demonstrated that it is better than any other model of treatment. Is it worth the cost of implementation?

3. **When you say “evidence-based practice,” whose evidence is it?** Most research regarding evidence-based practice is conducted by the very founders of the approach under study. In such circumstances, up to 70% of the results can be attributed to what is called “allegiance effects,” or the researchers’ bias toward their own models. This doesn’t mean the researchers are dishonest, it just means that the results should be interpreted with this in mind. And how much allegiance are we talking about? MST founders, for example, have received over \$55 million in grants and over \$5 million in licensing and consultation fees.

4. **When you say “evidence-based practice,” what kind of evidence is it?** A real look at the evidence or pulling the curtain back on the Wizard reveals not much to get excited about—a real humbug. *Thousands* of studies have found no difference among approaches. While a few studies have reported a favorable finding for one approach or another, the amount of studies finding differences are no more than one would expect from chance. For example, Cognitive Behavioral Therapy (CBT) proponents often point to 15 comparisons showing an advantage for CBT—however, there are 2985 comparisons that show no difference. There is **far more evidence** for other factors contributing to change than what model the therapist practices: Over a thousand studies have demonstrated that the alliance between the clinician and the client is 7 times more important than the technique of the therapist. And the largest source of change (accounting for at least 40%), virtually ignored by EBP, is accounted for by what the client brings—their strengths, struggles, culture, and preferences. The approach accounts for so little of change, while the client and the practitioner—and their relationship—account for so much. Given **this** evidence, is implementation of a specific model of practice worth the cost?

Another side of the “what kind” of evidence question is **whether the study is really a fair contest**—is it actually a contrast between two approaches fully intended to be therapeutic? Or is it, in fact, the pet approach of the experimenters pitted against a treatment as usual or less than ideal opponent? Consider MST’s claim that it is better than individual therapy. An inspection of one such comparison involving serious juvenile offenders (Borduin, Mann, Cone, et al., 1995) reveals MST conducted in the home, involving parents and other interacting systems, by therapists trained and regularly supervised by the founders of the approach. MST is compared with therapy of the adolescent *only*, with little to no outside input of parents or others, conducted in an outpatient clinic by therapists with no special supervision or allegiance. This type of comparison is an unfair comparison—a treatment as usual contrast rather than a bona fide treatment comparison. Consequently, this study, like many others claiming superiority, is set up with the winner already determined. Do such unfair comparisons justify the expense of implementation?

5. **Because of the above points**, the American Psychological Association formed a task force to clarify the meaning of EBP and its implications:

Definition: *Evidence-based practice in psychology is the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences (American Psychologist, May 2006).*

Implications:

- Clinical decisions should be made in collaboration with the patient, based on the best clinically relevant evidence, and with consideration for the probable costs, benefits, and available resources and options
- Psychological services are most effective when responsive to the patient’s specific problems, strengths, personality, sociocultural context, and preferences.

- The application of research evidence to a given patient always involves probabilistic inferences. Therefore, ongoing monitoring of patient progress and adjustment of treatment as needed are essential.
6. Bottom Line: You don't need to spend money implementing a model that will ultimately not be any more effective. **The only way to guarantee successful outcomes, as APA suggests, is to systematically monitor progress with clients and tailor treatment to the individual receiving it—to move from evidence-based practice to practice-based evidence.**

Evidenced-Based Practice and Specific Effects

The great tragedy of science—the slaying of a beautiful hypothesis by an ugly fact.

Thomas Henry Huxley

One assumption that underlies evidence-based practice (EBP) is that specific technical operations are largely responsible for client improvement—that active (unique) ingredients of a given approach produce different effects with different disorders. In effect, this assumption likens psychotherapy to a pill, with discernable unique ingredients that can be shown to have more potency than other active ingredients of other drugs.

There are three empirical arguments that cast doubt upon this assumption. First is the dodo bird verdict, which colorfully summarizes the robust finding that specific therapy approaches do not show specific effects or relative efficacy. In 1936, Saul Rosenzweig first invoked the dodo's words from *Alice's Adventures in Wonderland*, "Everybody has won and all must have prizes," to illustrate his observation of the equivalent success of diverse psychotherapies. Almost 40 years later, Luborsky, Singer, and Luborsky (1975) empirically validated Rosenzweig's conclusion in their now classic review of comparative clinical trials. The dodo bird verdict has since become perhaps the most replicated finding in the psychological literature, encompassing a broad array of research designs, problems, and clinical settings.

A meta-analysis, designed specifically to test the dodo bird verdict (Wampold et al., 1997), included some 277 studies conducted from 1970 to 1995. This analysis

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verified that no approach has reliably demonstrated superiority over any other. At most, the effect size (ES) of treatment differences was a weak .2. “Why,” Wampold et al. ask, “[do] researchers persist in attempts to find treatment differences, when they know that these effects are small?” (p. 211). Finally, an enormous real-world study conducted by Human Affairs International of over 2000 therapists and 20,000 clients revealed no differences in outcome among thirteen approaches, including medication, as well as family therapy approaches (Brown, Dreis, & Nace, 1999). The preponderance of the data, therefore, indicate a lack of specific effects and refute any claim of superiority when two or more bona fide treatments fully intended to be therapeutic are compared. If there are no specific technical operations that can be reliably shown to produce a specific effect, then mandating EBP seems to make little sense.

The second argument shining a light on the empirical pitfalls of EBP emerges from estimates regarding the impact of specific technique on outcome. After an extensive, but non-statistical analysis of decades of outcome research, Lambert (1992) suggested that model/technique factors account for about 15% of outcome variance. An even smaller role for specific technical operations of various psychotherapy approaches is proposed by Wampold (2001). His meta-analysis assigns only a 13% contribution to the impact of therapy, both general and specific factors combined. Of that 13%, a mere 8% is portioned to the contribution of model effects. Of the total variance of change, only 1% can be assigned to specific technique. This surprising low number is derived from the 1997 meta-analytic study, in which the most liberally defined effect size for treatment differences was .2—indicating that only 1% of the variance in outcomes can be attributed to specific treatment factors. A consideration of Lambert’s and Wampold’s estimates of variance reveals that EBP arises from factors that do not account for 85% and 99%, respectively, of the variance of outcome. EBP, because of the limited amount of variance accounted for by specific therapist technical operations, simply does not map enough of the landscape to make them worthwhile guides to the psychotherapy territory.

Finally, component studies, which dismantle approaches to tease out unique ingredients, have similarly found little evidence to support any specific effects of therapy.

A prototypic component study can be found in an investigation by Jacobson et al. (1996) of cognitive behavioral therapy (CBT) and depression. Clients were randomly assigned to (1) behavioral activation treatment, (2) behavioral activation treatment plus coping skills related to automatic thoughts, or (3) the complete cognitive treatment (the above two conditions plus identification and modification of core dysfunctional schemas). Results generally indicated no differences at termination and follow-up. Perhaps putting this issue to rest, a recent meta-analytic investigation of component studies (Ahn & Wampold, 2001) located 27 comparisons in the literature between 1970 and 1998 that tested an approach against that same approach without a specific component. The results revealed no differences. These studies have shown that it doesn't matter what component you leave out—the approach still works as well as the treatment containing all of its parts. When taken in total, comparative clinical trials, meta-analytic investigations, and component studies point in the same direction. There are no unique ingredients to therapy approaches and little empirical justification for EBP.

EBP and the Known Sources of Variance

Whoever acquires knowledge and does not practice it resembles him who ploughs his land and leaves it unsown.

Sa'di, Gulistan

There is a certain seductive appeal to the idea of making psychological interventions dummy proof, where the users—the client and the therapist—are basically irrelevant. This product view of therapy is perhaps the most empirically vacuous aspect of EBP because the treatment itself accounts for so little of outcome variance, while the client and the therapist—and their relationship—account for so much.

Starting with the variance attributed to the alliance—a partnership between the client and therapist to achieve the client's goals (Bordin, 1979)—researchers repeatedly find that a positive alliance is one of the best predictors of outcome (Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Research on the power of the alliance reflects over 1,000 findings, and counting (Orlinsky, Rønnestad, & Willutzki, 2004). For example, Krupnick et al. (1996) analyzed data from the landmark Treatment of Depression Collaborative Research Project (TDCRP) and found that the alliance was predictive of success for all conditions—the treatment model was not. In another large

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study of diverse therapies for alcoholism, the alliance was also significantly predictive of success (sobriety), *even* at one year follow-up (Connors, DiClemente, Carroll, Longabaugh, & Donovan, 1997).

Based on the Horvath and Symonds (1991) meta-analysis, Wampold (2001) portions 7% of the overall variance of outcome to the alliance. Putting this into perspective, the amount of change attributable to the alliance is about seven times that of specific model or technique. As another point of comparison, in the TDCRP, mean alliance scores accounted for up to 21% of the variance, while treatment differences accounted for at most 2% of outcome variance (Wampold, 2001), over a ten-fold difference. Recognition of this disparity has led to the creation of a counterbalancing movement by the APA Division of Psychotherapy to identify elements of effective therapy relationships (Norcross, 2001).

Turning to variance attributed to the therapist, the explosion of EBP has not eliminated the influence of the individual therapist on outcomes. There is substantial evidence of differences in effectiveness between clinicians and treatment settings (Miller, Duncan, Brown, Sorrell, & Chalk, in press; Lambert et al., 2003). Conservative estimates indicate that between 6% (Crits-Christoph et al., 1991) and 9% (Project MATCH Research Group, 1998) of the variance in outcomes is attributable to therapist effects while treatment context accounts for up to 3-4% (Wampold, 2001). These percentages are particularly noteworthy when compared with the variability among treatments (1%).

Finally, the largest source of variance, virtually ignored by the move toward EPB, is accounted for by the so-called extratherapeutic factors—those variables associated with the client, including unexplained (and error) variance. These variables are incidental to the treatment model and idiosyncratic to the specific client—factors that are part of the client and his or her environment that aid in recovery regardless of participation in therapy (Lambert, 1992). What clients bring to the process—their attributes, struggles, motivations, and social supports—accounts for 40 percent of the variance (Lambert, 1992); clients are the engine of change (Bohart & Tallman, 1999). Wampold's (2001)

meta-analytic perspective assigns an 87% contribution to extratherapeutic factors and unexplained variance.

Among the client variables frequently mentioned are severity of disturbance, motivation, capacity to relate, ego strength, psychological mindedness, and the ability to identify a focal problem (Assay & Lambert, 1999). In the absence of compelling evidence for any of the specific client variables to predict outcome or account for the unexplained variance, this most potent source of variance remains largely uncharted. This suggests that the largest source of variance cannot be generalized because these factors differ with each client. These unpredictable differences can only emerge one client at a time, one alliance at a time, one therapist at a time, and one treatment at a time. Although specific treatments do not have unique ingredients, the data seem to suggest that clients do.

EBP neither explains nor capitalizes on the sources of variance known to effect treatment outcome. Given the data, we believe that continuing to invest precious time and resources in the development and dissemination of EBP is misguided. A simpler path to effective, efficient, and accountable intervention exists. Rather than attempting to fit clients into “evidence-based practice,” we recommend that therapists and systems of care tailor their work to individual clients through “practice-based evidence.”

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