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## The Science and Theory of Empirically Supported Treatments: A Response to Hughes

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School psychologists work in dynamic contexts, and the conceptual and empirical bases that shape and inform the field are broad and diverse. As a profession, school psychology is concerned with providing services to a broad constituency base, with children and youth at the center. Because the work of school psychologists concerns helping children, there is a huge professional and ethical responsibility to ensure that what we do or the treatments we recommend have the greatest potential to result in the greatest amount of good. It is therefore important to understand the extant intervention literature base including its conceptual underpinnings, data-based findings, and contexts to which results can be generalized to benefit the children we serve. Therein lie the strengths of the emerging literature on empirically supported treatments (ESTs). Hughes, in her article, “The Essential Role of Theory in the Science of Treating Children: Beyond Empirically Supported Treatments,” [this issue] raises a variety issues around ESTs that warrant consideration by theoreticians and empiricists alike. However, several issues can be raised as evidence of a need to refocus the discussion back to the science–practice link.

In this response to Hughes, I will attempt to argue three things. I begin by noting that although I agree with Hughes about the importance of theory in school psychological practice and research, her arguments seem misfocused in several ways. Second, I will argue that theory alone is insufficient when considering services for children and families. The implication that somehow theory is more important than research does not appear fruitful in advancing our work with children. Third, science must be interpreted within the context or framework for which it is intended.

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## Misplaced Focus

In a very articulate manner, Hughes pushes readers to broaden their conceptualization of treatments beyond what “works for kids” in acontextualized, atheoretical ways. However, her arguments seem misplaced in a number of ways. First, she appears to argue that some theories are more important or accurate than others when establishing effective approaches for working with children. Second, her main thesis has more to do with the use or misuse of the EST literature, and not problems inherent in the EST process per se. Relatedly, she seems to focus on a perceived static outcome of the EST movement, rather than appreciating its contributions to empirical and clinical processes.

School psychology is shaped, if not defined, by many theoretical bases that include, but are not limited to, ecological systems, behavioral, developmental, and social-learning theories. A realization and appreciation of multiple theoretical perspectives *as they relate to empirically based interventions* serves the field well. In this issue, Hughes provides a paradigmatic framework based on developmental psychopathology that is useful for conceptualizing casework with children and families. However, this is just one framework.

Implicit in her argument is the notion that empirical intervention studies test the efficacy of treatments devoid of theory. She fails to appreciate that the support services and interventions developed from behaviorally based perspectives are, in fact, firmly established in theory. For example, when considering behavioral approaches to consultation, she fails to describe the richness of the established conceptual bases of behaviorism and applied behavior analysis (ABA), which implies that such approaches are “theoryless.” One need simply note the rich theoretical and scientific bases on which many interventions lie to recognize their historical and contemporary importance to school psychological practice. To reject such advances as they relate to “best practices” for children, youth, and families appears misguided.

I agree with Hughes’ arguments that intervention research findings interpreted with consideration of salient intrapersonal and contextual variables provide essential information to one’s clinical repertoire. This being said, it is important to note that it is the psychologist’s responsibility to consider the use, rationale, conceptual underpinnings, contextual implications, and direct and indirect effects of an intervention. Blind adherence to one intervention sans these considerations is *a practice* issue and not an issue with ESTs per se. Questioning carefully conducted and controlled re-search seems misplaced in this context. At the core of this issue is psychologists’ uses or misuses of scientifically derived findings related to interventions with children. For example, Hughes’ arguments about a psychologist recommending time out to a parent with a history of child maltreatment, or

the use of interventions with clinical populations for which efficacy evidence is contraindicative has more to do with clinical malpractice than problems inherent in research on ESTs.

It is also unfortunate that the dialogue around ESTs has been misfocused on content, when the real strength of this movement is on the scientific process (T. B. Gutkin, personal communication, 1999). The systematic approach by which ESTs explore a range of broad interventions, impose empirical standards, and lessen the inferences necessary when moving from research to practice is essential to advance our understanding of all the phenomena raised by Hughes. Such scrutiny can serve to “raise the bar” for clinicians and researchers alike to understand the conceptual, contextual, and empirical bases supporting a particular treatment. The solitary focus on *product* (e.g., an inventory of treatments that are identified as empirically supported) excludes appreciation for the *process* by which scientific psychologists come to explore and advance new understandings that strengthen our work with children.

Nowhere to my knowledge do the “conclusions” drawn from EST-related analyses suggest finality; rather, as empirical studies are conducted and new understandings derived, it is expected that the nature and types of interventions used with children and families will change and evolve. As suggested by Kratochwill and Stoiber (in press), “interventions that are supported at one time may be unsupported in the future when better research and extensions to other dimensions of a problem become available through empirical analysis.” The field (and our clientele) is extremely well-served by the manner in which the EST movement “pushes the envelope.”

### **Theory Alone Is Not Sufficient**

Clearly, Hughes is accurate in her argument that theory play a central role in services and interventions provided to children, youth, and families. It simply cannot play the only role. The beauty of theory is that when well-conceived, it can serve as a first step in guiding a clinician’s actions. However, there is a need to go beyond theory in our work with children and families. A framework grounded in theory alone falls short in its ability to move clinicians forward to a point at which they can support their interventions from an empirical perspective. Hughes argues that science alone cannot guide the work of clinicians. Similarly, theory alone cannot inform and direct clinical actions.

Advances in both theoretical and scientific bases must be considered in our “front line” work with children. Theory and science *together* should guide clinicians’ decisions. Theory in school psychology cannot exist in a vacuum in the

absence of scientific scrutiny to serve our constituencies in an ethical and efficacious manner. School psychology has benefited immensely from research advances within and across related disciplines that continue to inform our practice. One quintessential, if not vital direction, is the emerging work in the area of empirically supported interventions.

### **Research Must Be Interpreted In Context**

Questioning aspects of generally accepted practices is a good thing as long as the approach to such questioning is grounded empirically. This requires a clear understanding of the research context (i.e., the conditions under which relevant research is conducted, and representing those conditions appropriately when interpreting the results). In the latter sections of her article, Hughes scrutinizes behavioral approaches to consultation and intervention as overly narrow and insular. Arguments for or against a certain approach (in this case, behavioral consultation [BC] and ABA) must be framed within the parameters for which it was intended. Hughes' statements misrepresent ABA and its conceptual bases by ignoring the rigorous studies that comprise the discipline, and by suggesting that research grounded in ABA purports to do more than they do (i.e., are generalizable across all conditions and contexts).

The need to accommodate to children's individual differences is a recognized need in psychology. Although it is true that "children exhibiting the same problem behavior may not share the same pathways," it is not typically the intent of behaviorally based consultation and intervention research to uncover differences in pathways and identify differential strategies to treat them. Nor do BC researchers purport such objectives. If the research is studied carefully, consumers will note that in most carefully conducted behavioral research, participants are selected following a very carefully construed and clearly specified evaluation procedure. Selection criteria are painstakingly developed and applied, and are based on much more than the topography of a target behavior. Whereas it is true that the manner in which a behavior is manifested may be the result of varying conditions, these are typically uncovered and controlled in participant selection procedures. Controlling for such individual (and environmental) differences, re-searchers are then able to develop, implement, and evaluate interventions *in applied settings*. That is, researchers identify and control characteristics and conditions in common across participants, which allows for a profile approach to clinical inquiry. The profile is based on specified criteria, such as client developmental history, cognitive and learning characteristics, demographic features, familial background, behavioral topography and function, clinical diag-

nostic indicators, and so forth. This complex conceptualization of child behavior and relative responsiveness to intervention argues for more (not less) research on ESTs that investigates use of interventions under varying systemic and contextual conditions.

Clinical replication is the cornerstone of moving research into practice (Barlow, Hayes, & Nelson, 1986). These procedures are critical in advancing applied intervention research, not for the sake of ignoring key intra- and interpersonal characteristics, but rather to understand them more fully in relation to a carefully developed clinical intervention. For Hughes to ignore this complex essential feature of behavioral research is unfortunate.

Hughes' characterization of behavioral consultants as being unaware of the complexity of parent—child relationships and conceptualizing children “exclusively from reinforcement paradigms” is also unfortunate. To make her point, broad and unfounded speculations are offered that go well-beyond the purpose for which research was conducted or findings interpreted. For example, the study by Gmeider and Kratochwill (1998) on compliance training is offered as an example of a narrowly prescribed parent intervention. Although it is true that this intervention failed to consider the family's identification with a broader culture, this was not the researchers' intent. Further, to suggest that the parent participants “may have been pre-disposed toward an authoritarian style of parenting, and the intervention may have increased their use of control-oriented tactics without promoting their acceptance or autonomy-granting skills” seems quite speculative and well-beyond what their data suggest.

The increasing level of sophistication and rigor with which consultation intervention studies have been conducted and the inherent complexity of BC research is worthy of careful consideration in the context of ESTs. In a review of consultation outcome research conducted between 1985 and 1995, Sheridan, Welch, and Orme (1996) commented on the importance of well-articulated theoretical underpinnings in consultation research. Consultation outcome studies that utilized an ill-conceived model of consultation yielded neutral or equivocal results. Furthermore, these authors found that 46% of consultation studies investigated the effects of BC or one of its variants. Fifty-two percent of these used multiple measures to assess outcome, and 52% used experimental procedures (of either a group or single-subject design) to evaluate effects. Fifty-seven percent assessed consumer satisfaction, 67% measured social validity, and 43% assessed outcomes at a predetermined follow-up period. The authors concluded that “outcomes in these [BC] studies continue to be convincingly positive. In fact, considering that the methodological standards are much more rigorous in BC studies than in those using other consultation models, it appears that BC yields the most favorable results” (Sheridan, Welch, & Orme, 1996, p. 349).

## Conclusions

At the risk of oversimplifying our field, I contend that psychology is a field that is comprised of people helping people. It is a helping profession, which by definition is about doing something for, with, or “to” someone, with the hope of providing assistance or informing decisions. With the possible exception of computer-based treatments, interventions are not developed, recommended, or implemented in the absence of the “human touch.” Clinicians are responsible for taking what they know based on theory and research, and generating a meaningful, thoughtful plan in the changing contexts within which they work. Further, they have a fundamental responsibility to become increasingly accountable for their services. These are very difficult tasks. It is the work of researchers to make the research–practice link overt, at least partly through the articulation of empirically supported interventions.

If, for no other benefit, the EST movement helps school psychologists provide appropriate and effective services for children and families, it will serve a critical purpose. In a field that is becoming more and more intervention focused, there is an increasing need to help practicing school psychologists “differentiate what constitutes effective practice, [and] provide such services” (Stoiber & Kratochwill, 2000; p. 82). The potential pitfalls of the EST movement are not inherent in the proliferation of identifying efficacious interventions, but are related to misuse of the extant literature. Let us hope that researchers and practitioners alike do not misdirect energies toward finding what is wrong with research advances, but remain focused on what is good for children. After all, that is what school psychology is about.

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