"The most

Savage Controversies

are those about matters as to which there is no good evidence either way." Bertrand Russell

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Functions of the Evidence-Based Practices Special Interest Group (EBP-SIG)

- To identify appropriate methods for evaluating evidence from single-subject research and promote these methods within both ABA and the larger context of the evidence-based practice movement
- To promote activities that address the large-scale implementation of EBP within systems that support their sustainability
- To advocate for behavior analysis in this societal shift by following developments in other disciplines that influence the evolution of evidence-based practice and allow the larger professional community to have a voice

Inside This Issue

A Note from the Newsletter Editors

Welcome to the first issue of Volume 3 of *Savage Controversies*, the newsletter of the Evidence-Based Practice SIG of the Association for Behavior Analysis International. We were honored to be selected (actually we were the only ones who volunteered) as the newsletter editors at the 2009 conference SIG meeting. Each volume will include three issues with the first issue published in December, the second issue in April (to highlight upcoming EBP conference events), and the third issue in August (to summarize EBP conference events). We also plan to have the following columns in each issue, including a Feature Article that focuses on an EBP issue or summarizes findings from EBP research, In Other Sources that includes EBP summaries from peer-reviewed journals, Other EBP Efforts that include website resources related to EBP, and Conference and EBP Announcements. In addition, future issues will include a President's Corner. If you have any feedback on this format, or any suggestions for future content, please feel free to contact us at dwtest@uncc.edu. Enjoy.

From left to right, Valerie, April, David, Dawn, and Kelly

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Featured Article
Commentary on Biglan and Ogden (2008): The Evolution of Evidence-based Practices

Ronnie Detrich, Wing Institute
Teri Lewis-Palmer, Educational Consultant

The evidence-based practice movement can be characterized as a consumer protection movement, which is manifested in at least two ways. First, evidence-based interventions are selected to prevent behavioral health problems. Second, evidence-based interventions are selected to remediate existing behavioral health problems. The paper by Biglan and Ogden (2008) primarily addresses the latter category, but many of the issues addressed also apply to prevention approaches. The central problem being addressed in this paper is a research to practice gap. Biglan and Ogden (2008) make the case that there is sufficient knowledge to produce significant positive outcomes on a large scale if evidence-based interventions were adopted and implemented. The difficulty lies in the lack of knowledge about how to influence organizations to adopt and implement evidence-based interventions. The question is how do we transport our scientific knowledge base to practice settings without losing the power of the intervention. Kazdin (2000) has suggested that evidence-based interventions are less likely to be implemented in practice settings than are interventions that have not been evaluated or have been evaluated and shown to have no effect. A prime example of the latter case is the Drug Abuse Resistance Education (DARE) program, which is one of the most common drug prevention programs being implemented in schools in the United States in spite of evidence that suggests that it has no beneficial effects in preventing drug use. One might wonder how it is that these non-effective or non-evaluated interventions are adopted over interventions that have been shown to be effective. There is some literature that suggests that practitioners are not reading research and if they do read it consider it to be irrelevant to their practice setting (Hoagwood, Burns, Kiser,

Ringeisen, & Schoenwald, 2001). If practitioners are not basing their decisions on research evidence, then other types of information are influencing their decisions, such as appeals to authority, propaganda, marketing, etc. Each of these sources of information has their own sources of bias which may result in practitioners making unwise decisions regarding their practice.

The research to practice gap is more than having evidence-based practices available. As Biglan and Ogden (2008) point out, the majority of the research focuses on practices and little focus is placed on implementation and organizational change. Additionally, practice sites are often less than prepared to identify and sustain available research. Krachtowill, Albers, and Shernoff (2004) indicate that practice sites are challenged by cumbersome organization, lack of skills and resources, and limited emphasis on prevention.

In a recent article Detrich, Keyworth, and States (2007) proposed a road map for evidence-based education in which research and practice are seen as equal partners in the evidence-based practice movement. The difference between the two is that each has concerns that are specific to their enterprise. In the vernacular of the road-map, Biglan and Ogden (2008) are addressing the point of contact between effectiveness research and implementation. Effectiveness research answers questions about when an intervention will work and implementation answers questions about how to make it work.

The Norway experience described by Biglan and Ogden (2008) highlights a critical feature of effective implementation, especially when implementation is at the scale of this project. If implementation is to be effective, then all elements of the system have to be aligned and working toward the same goals and outcomes. What is

most critical about the Norway project is not the specific evidence-based interventions that were selected but rather the process of adoption and implementation that was followed. As described in the paper for each of the interventions that were put in place, a very specific process was followed to assure that those responsible for implementation could implement with integrity and that the organizations responsible for implementation had the necessary infrastructure to support implementation efforts. It should be noted that it took several years to get these various intervention programs to full operation. This is an important message that should not be lost on public policy administrators who are often looking for quick solutions.

Another point that should not be lost in the discussion of bringing evidence-based practices to bear on social problems is that there are several professional organizations and public agencies that are validating interventions, and the standards for making this determination are not well correlated. This leaves consumers in the very difficult position of having to make judgments about the competing standards and claims about what is and what is not evidence-based. Additionally, the amount of time required for agencies to review practices leaves many issues unaddressed or without information for consumers to access. Few consumers are in a position to make informed decisions about these issues. The professional organizations and public agencies that are validating interventions as evidence-based are failing to meet their responsibility to protect consumers from ineffective practices.

Clearly and consistently identifying evidence-based practices is further complicated by imprecision in the unit of analysis. Biglan and Ogden (2008) identify at least three levels of analysis that require review. The first two are practices and programs, which are frequently used interchangeably. Identification of evidence-based practices should specify which level has been reviewed, a practice such as token reinforcement or a program comprised of multiple practices such as parent training. Further, Biglan and Ogden (2008) expand the scope of the evidence-based practice movement to incorporate policies and systems that promote the adoption and sustained implementation of practices and programs.

The emphasis on policies and systems is an important addition to the discussion of evidence-based practices. In a review of the literature on implementation, Fixsen and colleagues (2005) have detailed the necessary conditions for large-scale implementation to be effective. These steps apply regardless of whether a practice or a program is being adopted and implemented. Fixsen and colleagues (2005) reinforce the point that full scale implementation may take several years.

The issues raised in Biglan and Ogden (2008) are echoed by others. In particular, Chorpita (2003) divides evidence-based research into four types: efficacy, transportability, dissemination, and systems evaluation. Biglan and Ogden (2008) further expand this idea of research to practice through their idea of reach or amount of anticipated impact. It appears that the evidence-based practice movement will need to find a balance between the efficacy and effectiveness of a practice and the proportion of the target population impacted. That is, having an effective practice with a narrow impact may meet the technical definition of evidence-based, may not be sufficient to meet the broader goals of the evidence-based practice movement, or be in the interest of society as a whole when resources are so limited. Conversely, implementing an evidence-based practice with a narrow reach is assumed to be better than implementing an unevaluated intervention. The value of an intervention has to be evaluated in the context of the alternatives.

The ultimate goal for practitioners is that effective practices and programs sustain. Fixsen and colleagues

(2005) have suggested that sustainability is a function of how well adoption and implementation has been handled. Similarly, Elliott and Mihalic (2004) have suggested that sustainability is related to how well programs provide technical assistance, train staff, prepare sites for a new program, and have the program supported by organizational resources. Biglan and Ogden (2008) seem to have carefully considered the process of implementation in Norway and the likelihood of sustainability seem great, but time will tell.

The critical messages in Biglan and Ogden (2008) for researchers are two-fold. First, they provide us with an example of successful implementation of an evidence-based practice model that now requires both direct and systematic replication. Second, and more importantly, they highlight future research needs if we are to adopt a complete evidence-based practice philosophy. An important priority is an agreed upon clear definition of what constitutes an evidence-based practice, including consistent criterion for review of existing literature bases. Additionally, future research must expand the unit of analysis to include not only practices, but programs, systems, and policies. Finally, an evidence-based practice approach should include evaluation of sustainability and overall reach or impact of interventions.

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Chorpita, B. F. (2003). *The frontier of evidence-based practice*. In A. E. Kazdin and J. R. Weisz (Eds.). Evidence-based psychotherapies for children and adolescents (pp. 42-59). New York: Oxford.

Detrich, R., Keyworth, R., & States, J (2007). A roadmap to evidence-based education: Building an evidence-based culture. *Journal of Evidence-Based Practices for Schools, 8*, 26-44.

Elliott, D. S., & Mihalic, S. (2004). Issues in disseminating

and replicating effective prevention programs. *Prevention Science, 5*, 47-53.

Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, R. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

Hoagwood, K., Burns, B. J., Kiser, L, Ringeisen, H., & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services, 52*, 1179-1189.

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Baker, S. K., Chard, D. J., Ketterlin-Geller, L. R., Apichatabutra, C., & Doabler, C. (2009). Teaching writing to at-risk students: The quality of evidence for self-regulated strategy development. *Exceptional Children, 75,* 303-318.

The authors conducted a systematic review using quality indicators suggested by Horner et al. (2005) and Gersten et al. (2005) of the Self-Regulated Strategy Development literature to determine the level of evidence to support the use of the practice with students with learning disabilities. Based on the literature reviewed, the authors found that the Self-Regulated Strategy Development does meet the requirements for being an evidence-based practice for students with learning disabilities.

Browder, D., Ahlgrim-Delzell, L., Spooner, F., Mims, P. J., & Baker, J. N. (2009). Using time delay to teach literacy to students with severe developmental disabilities. *Exceptional Children, 75,* 343-364.

The authors conducted a systematic review using quality indicators suggested by Horner et al. (2005) of literature using time delay to teach picture and sight words to determine the level of evidence to support the use of the practice with students with severe developmental disabilities. Based on the literature reviewed, the authors found that time delay for teaching picture and sight word recognition does meet the requirements for being an evidence-based practice for students with severe developmental disabilities.

Burns, M. K., & Ysseldyke, J. E. (2009). Reported prevelance of evidence-based practices in special education. *The Journal of Special Education, 43,* 3-11.

The authors examined the frequency in which teachers were using evidence-based practices in the classroom. Results showed that teachers reported using both practices supported by evidence, as well as those with limited or no support indicating there is still a research to practice gap.

Chard, D. J., Ketterlin-Geller, L. R., Baker, S. K., Doabler, C., & Apichatabutra, C. (2009). Repeated reading interventions for students with learning disabilities: Status of the evidence. *Exceptional Children, 75,* 263-281.

The authors conducted a systematic review using quality indicators suggested by Horner et al. (2005) and Gersten et al. (2005) of the repeated reading literature to determine the level of evidence to support the use of the practice with students with learning disabilities. Based on the literature reviewed, the authors found that repeated reading does not meet the requirements for being an evidence-based practice for students with learning disabilities.

Cook, B. G., Tankersly, M., & Landrum, T. J. (2009). Determining evidence-based practices in special education. *Exceptional Children, 78,* 365-383.

The authors reviewed criteria and procedures for identifying evidence-based practices in the fields of clinical psychology, school psychology, and general education and compared the criteria and procedures to the proposed guidelines for special education. Based on the review, recommendations for refining the process of defining evidence-based practices are provided.

Lane, K. L., Kalberg, J. R., & Shepcaro, J. C. (2009). An examination of the evidence-base for function-based interventions for students with emotional and/or behavioral disorders attending middle and high school. *Exceptional Children, 75,* 321-340.

The authors conducted a systematic review using quality indicators suggested by Horner et al. (2005) of the functional assessment-based intervention literature to determine the level of evidence to support the use of the practice with students with emotional/behavioral disorders. Based on the literature reviewed, the authors found that functional assessment-based intervention does not meet the requirements for being an evidence-based practice for students with learning disabilities.

Montague, M., & Dietz, S. (2009). Evaluating the evidence base for cognitive strategy instruction and mathematical problem solving. *Exceptional Children, 75,* 285-302.

The authors conducted a systematic review using quality indicators suggested by Horner et al. (2005) and Gersten et al. (2005) of the cognitive strategy instruction for mathematical problem solving literature to determine the level of evidence to support the use of the practice with students with disabilities. Based on the literature reviewed, the authors found that cognitive strategy instruction for mathematical problem solving does not meet the requirements for being an evidence-based practice for students with disabilities.

Test, D. W., Fowler, C. H., Richter, S. M., White, J., Mazzotti, V., Walker, A. R.,…Kortering, L. (2009). Evidence-based practices in secondary transition. *Career Development for Exceptional Individuals, 32,* 115-128.

The authors conducted a systematic review of the secondary transition literature using quality indicators to identify evidence-based practices in secondary transition. Based on the literature reviewed, the authors identified 32 evidence-based practices in secondary transition with varying levels of evidence (i.e., strong, moderate, potential).

We are currently searching the following journals for evidence-based practices*: Journal of Evidence-Based Practices for Schools, Journal of Applied Behavior Analysis, Behavior Analyst, Exceptional Children, Career Development for Exceptional Individuals, and The Journal of Special Education.* If you feel there are other journals that need to be included in our search, please contact Dawn Rowe at drowe6@uncc.edu.

Best Evidence Encyclopedia (BEE)

http://www.bestevidence.org/index.cfm

The Best Evidence Encyclopedia presents reliable, unbiased reviews of research-proven educational programs to assist policy makers, principals, teachers, and researchers in making informed choices about program development and implementation. BEE has conducted program reviews in the areas of math, reading, and comprehensive school reform.

Center for Implementing Technology in Education (CITEd)

http://www.cited.org/index.aspx

The Center for Implementing Technology in Education is a national technical assistance center funded by the Office of Special Education Programs. CITEd's purpose is to identify evidence-based practices for incorporating instructional technology to support the achievement of all students. CITEd provides strategies for effective technology implementation to schools and districts, tools to help practitioners meet educational challenges through technology, and provides evidence-based, promising, and emerging practices for incorporating technology into instruction.

Council of Administrators of Special Education (CASE)

http://www.casecec.org/index.html

The Council of Administrators of Special Education is an international professional education organization affiliated with the Council for Exceptional Children focused on promoting scientifically-based research practices. CASE's primary purpose is to provide leadership and support to shape policy and practices to improve the quality of education for students with exceptional needs. While the CASE website currently includes a set of "Endorsed Products," CASE is working with CEC's Division of Research to include research evidence as part of its revised *Publication and Product Review Endorsement Rubric.*

Council for Exceptional Children: Division of Research (CEC-DR)

http://www.cec.sped.org

The Council for Exceptional Children: Division of Research (CEC-DR) has taken a leadership role developing a process for identifying evidence-based practices for students with disabilities. CEC-DR is field-testing a process for identifying evidence based practices based on specific research methodologies (i.e., group experimental, single-subject, correlational, qualitative) published in *Exceptional Children* in 2005 (Winter issue).

National Autism Center

http://www.nationalautismcenter.org

The National Autism Center (NAC) is dedicated to serving children and adolescents with Autism Spectrum Disorders. NAC has developed guidelines and standards for identifying evidence-based practices to help researchers and practitioners make informed choices regarding interventions for students with Autism. NAC has completed the *National Standards Project* that provides a set of standards for effective, research-validated educational and behavioral interventions for children/adolescents with autism.

National Secondary Transition Technical Assistance Center (NSTTAC)

http://www.nsttac.org/

The National Secondary Transition Technical Assistance Center helps states build capacity to support and improve transition programs, services, and outcomes for youth with disabilities. NSTTAC has currently identified 33 evidence-based practices in secondary transition for youth with disabilities. NSTTAC offers a variety of products for practitioners to help bridge the research to practice gap, including *evidence-based practice descriptions* and *evidence-based research to practice lesson plan starters*. Recently, they have identified evidence-based predictors of post-school success (i.e., employment, education, independent living) based on rigorous correlational research in secondary transition.

Promising Practices Network (PPN)

http://www.promisingpractices.net

Promising practices network provides credible, research-based information on what works to improve the lives of children, youth, and families. Their primary goal is to promote successful implementation of best practices for students with and without disabilities. PPN provides information about effective programs and links to additional research information in all areas related to child well-being.

The Campbell Collaboration

http://www.campbellcollaboration.org/

The Campbell Collaboration is an international research network that produces systematic reviews of social interventions in the areas of education, criminal justice, and social welfare. The website includes a library of systematic reviews that have been conducted in the areas of education, criminal justice, and social welfare. Additionally, they developed an Equity Checklist for conducting systematic reviews for authors.

What Works Clearinghouse (WWC)

http://ies.ed.gov/ncee/wwc/

The What Works Clearinghouse is funded by the Department of Education's Institute for Education Sciences. WWC has developed rigorous guidelines for identifying evidence-based practices for practitioners to use to make informed choices about interventions, programs, products, practices, and policies. Additionally, they have developed *practice guides* to provide practitioners with practical recommendations for providing instruction, strategies for overcoming potential roadblocks, and an indication of the strength of evidence supporting the recommendations made.

We are currently searching website resources for evidence-based practices. If there are other websites which should be included, please contact Valerie Mazzotti at vlmazzot@uncc.edu.

4th Annual Autism Conference 2010

Title: *Translational Science and Effective Practice*

Date: Friday, January 22 – Sunday, January 24, 2010

Location: Hyatt Regency Chicago

This conference will be a two-day, single track event with nine experts addressing relevant data on children, or adults, with autism. The program will also include three expert panel sessions with Q&A sessions. The invited presenters on the panels will respond to a common set of questions on the themes: "Recent Developments in Behavioral Programming & Interventions," "Using Science to Guide Autism Treatment," and "Current Status, Challenges, and Opportunities in Legislation of Behavior Analytic Autism Services: Observations and Recommendations from Professionals and Parent Advocates." Conference attendees will also be able to browse a bookstore and exhibit booths throughout the event. On-line registration is open using the "Register Now" link on the left. Information regarding hotel and travel can be found in the link on the left. Questions regarding the autism conference can be directed to the ABAI office at (269) 492-9310 or via e-mail.

Important Announcement

The National Autism Center has released the results of its *National Standards Project*. This report provides comprehensive information about the level of scientific evidence that exists in support of the many educational and behavioral treatments currently available for individuals with Autism Spectrum Disorders (ASD). Researchers identified 11 treatments as Established for individuals with ASD. Established Treatments are those for which several well-controlled studies have shown the intervention to produce beneficial effects. The full report is available on (www.nationalautismcenter.org) or directly through: http://www.nationalautismcenter.org/pdf/NAC%20NSP%20Report_FIN.pdf

ABAI Conference Summary

The 35th Annual ABAI convention in Phoenix was a great success. There were several insightful presentations surrounding Evidence-based Practice. A few of them are highlighted below:

Evidence-Based, Empirically Supported, Best Practice: What Does It All Mean?

Ronnie Detrich (Wing Institute), Trina Spencer (Utah State University), and Timothy Slocum (Utah State University) presented a symposium with Janet Twyman (Headsprout) as the discussant. The three presentations within the symposium, "Best Practice Guidelines: Standing on the Shoulders of Giants", "Research Based Principles: What Practice Can't Do Without", and "Evidence-Based Interventions-Validating Specific Interventions" sought to provide clarification regarding the EBP movement. The presentations described the range of approaches to the challenge of identifying effective practices, strengths and limitations of each approach, and reviewed various terms commonly used to describe evidence-based practice.

The Use of Single-Subject Research Designs in Identifying Evidence-Based Practices

David Test (UNC Charlotte), Susan, Wilczynski (National Autism Center), Valerie Mazzotti (UNC Charlotte), and April Mustian (UNC Charlotte) presented a symposium with Timothy Slocum (Utah State University) as the discussant. The symposium provided an overview of the issues and compromises involved in developing evidence-based practice guidelines using single-subject research designs. In addition, outcomes from the National Autism Center's identification of evidence-based practices for students with autism and the National Secondary Transition Technical Assistance Center's guidelines for identifying evidence-based practices for secondary transition were presented.

Supporting the Implementation of Evidence-Based Practices: Technical Assistance, Monitoring and Implementation Fidelity

Kenton Denny (Louisiana State University), Mack Burke (Texas A&M University), Kimberly Vannest (Texas A&M University), Shanna Hagan-Burke (Texas A&M University), Eric Oslund (Texas A&M University), Melissa Fogarty (Texas A&M University), and Caitlin Johnson (Texas A&M University) presented a symposium with Cynthia Anderson (University of Oregon) as the discussant. The symposium focused on adoption and implementation of evidence-based practices. Each presentations discussed a different aspect of practice site implementation including: building training and technical assistance into existing local resources, establishing monitoring systems that are reliable, and accessible and using fidelity of implementation to increase accuracy and sustainability of practitioner efforts.

Detailed abstracts from each presentation can be found at: (www.abainternational.org) or http://www.abainternational.org/ConvArchive/conv2009/program.asp