

# State Implementation of Evidence-Based Practice for Youths, Part I: Responses to the State of the Evidence

ERIC J. BRUNS, PH.D., AND KIMBERLY EATON HOAGWOOD, PH.D.

*Two child and adolescent psychiatry division directors in state medical schools on opposite coasts of the United States are faced with similar opportunities. One has been asked by the state mental health director to co-chair an evidence-based practice subcommittee, part of a larger effort to improve mental health care for children and adolescents statewide. The other has been approached by a legislator interested in ideas on how to craft legislation that can improve outcomes for youths in the state with serious mental health concerns. Both academics believe that more systematic application of evidence-based practices will contribute to better quality of life for children and their families in their respective states, and each convenes diverse teams to brainstorm options and make recommendations. But once convened, both teams struggle to find examples of best practices for undertaking such an initiative. One member of the first state's evidence-based practice subcommittee asks the co-chair, "Where's the evidence on how to use the evidence?"*

Public demands for more effective mental health services for children and adolescents have generated many state-level calls to action, such as those described above. Increasingly, such policymaking efforts have focused on how to apply evidence-based practice (EBP) in everyday clinical practice as a means of improving outcomes.<sup>1-4</sup> How should administrators and stakeholders create public policy that supports these goals? In this two-part column, we describe a unique consortium of states that is grappling with such issues through their statewide

EBP implementation efforts for children and adolescents. In this first installment, we present background on this issue, relevant theory and research, and descriptions of approaches adopted by six of these states. In part two, we present a synthesis of these state approaches, as well as recommendations for state policy, federal policy, and future research.

## BACKGROUND: STATES AS LEADERS OF EBP IMPLEMENTATION EFFORTS

EBP in child and adolescent psychiatry is typically conceived as either a process of applying scientific knowledge about service practices to the situation of an individual child and family<sup>5</sup> or a shorthand term that can be applied to referral, assessment, or treatment processes that are backed by scientific evidence of some level of robustness.<sup>6</sup> Regardless of the specific potential definitions of EBP, its strengths lie in the promise of translating research findings into better clinical care and increasing accountability for services that are delivered.<sup>4,7,8</sup>

States are clearly in a position to lead mental health service and system reform efforts, including the use of EBP to improve outcomes.<sup>3,9,10</sup> This is demonstrated by a number of recent research and policy initiatives. The President's New Freedom Commission report<sup>11</sup> highlighted states' potential for fostering such reforms. The Department of Health and Human Services followed up by awarding 5-year Mental Health Transformation State Infrastructure Grants. Two years after initiation of this grant mechanism, the program's national evaluation shows that implementation plans for all nine Mental Health Transformation State Infrastructure Grants states include efforts to expand use of EBP (C. Lupton, Project Director; written communication, July 2007). The National Institute of Mental

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Dr. Bruns is with the Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine; and Dr. Hoagwood is with the Columbia University College of Physicians and Surgeons and the New York State Office of Mental Health.

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Correspondence to Dr. Eric Bruns, Division of Public Behavioral Health and Justice Policy, University of Washington School of Medicine, 2815 Eastlake Avenue E, Seattle, WA 98102; e-mail: ebruns@u.washington.edu.

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Health (NIMH) issued a request for applications for state “science to service” initiatives aimed at promoting implementation of evidence-based mental health treatment practices.<sup>12</sup> NIMH also has a standing program announcement on dissemination and implementation that is applicable to state system implementation.<sup>13</sup> Foundations such as the MacArthur Foundation are also supporting studies of EBP implementation with involvement of state-level entities. Increasingly, states themselves are responding with specific initiatives and even legislation (e.g., Connecticut, Oregon, Washington) mandating implementation of empirically supported treatments for children and adolescents.

Although the research base on effective clinical services for children has expanded rapidly in the past 2 decades and large systems such as states are rising to the challenge to take seriously EBP implementation efforts, there are few studies to date that have elucidated the factors that facilitate the adoption of EBP into large systems, such as states.<sup>3,14</sup> Given states’ prominent role in setting policy and allocating funding, perhaps the largest science-to-service gap exists around the effectiveness of implementation innovations within such large governmental systems. Although EBP can be broadly conceived as an approach to enriching the quality of any type of decision making through systematic reflection,<sup>15</sup> to date, the “evidence” of EBP has offered little in the way of direction for how governments and policymakers should proceed.<sup>16,17</sup>

#### WHERE IS THE EVIDENCE ON HOW TO USE THE EVIDENCE?

Although empirical testing of strategies for child and adolescent psychiatric and psychological services is lacking, there are several relevant strategies, frameworks, and principles in the literature that could help guide the efforts of the protagonists presented at the start of this column. At the highest level, models such as that of Richmond and Kotelchuck propose global elements, such as a knowledge base, political will, and social strategies, that are necessary for proactive public policy to occur.<sup>18,19</sup> More specific to EBP implementation, Rosenheck has proposed four strategies for translating EBP into practice: construction of leadership coalitions; linkage to widely endorsed goals and values; development of communities of practice; and measurement of implementation fidelity and outcomes.<sup>20</sup>

Glisson<sup>19</sup> has identified several processes as key to the implementation of technological innovations in public mental health systems. These include, first, that it is a social process as much as a technical one; second, that multiple layers of social context (including the practitioner, provider organization, and community) must be attended to; and, third, that success is determined by the “fit” between the new technology and the social context. These assumptions have been used to develop a model (called ARC for Availability, Responsiveness, and Continuity) for facilitating introduction of new technologies, such as empirically supported treatments, into usual community practice settings.<sup>3</sup> ARC has been experimentally examined among casework teams and shown to reduce staff turnover and improve organizational climate.<sup>21</sup>

Although the assumptions and strategies presented above provide helpful guidance for constructing implementation strategies, they primarily refer to organization- or community-level change. Only recently has research emerged about state-level initiatives to implement EBP. Magnabosco<sup>10</sup> identified 106 unique state-level activities used to support implementation of evidence-based treatments for adults with serious mental illness. These were then classified them into five types of strategies: state infrastructure building, stakeholder relationship building, financing, continuous quality management, and services delivery practices and training. Drake et al.<sup>22</sup> concluded from their work on a seven-state initiative to implement supportive employment for adults with serious mental illness that there were five state-level “best practices for disseminating a best practice.” These were collaborative state-level administrative oversight, longitudinal training to fidelity criteria, outcome-based supervision, problem solving by local experts, and selection of intervention sites based on motivation to participate.

In sum, the need has clearly been established for the development of a policy research base regarding state implementation of EBPs. As demonstrated in the above examples, there have been some encouraging first steps. In child and adolescent mental health services, published descriptions are beginning to emerge from states such as Hawaii,<sup>23</sup> Ohio,<sup>24,25</sup> and Michigan.<sup>26,27</sup> Because state efforts to implement one or more EBPs requires oversight of “idiosyncratic, complex Microsystems,”<sup>22</sup> they are necessarily complex and unique. Many state efforts oversee comprehensive training, supervisory,

or regulatory activities to implement a range of EBPs across the developmental continuum, making them all the more complicated.<sup>1</sup> Thus, at the present stage of development of this research base, describing and characterizing approaches being taken by different states is an important endeavor.

### STATE EFFORTS TO IMPLEMENT EBP FOR CHILDREN AND ADOLESCENTS

The Child and Family Evidence-Based Practices Consortium is a national collaboration of organizations working at a variety of EBP implementation levels, including state government, universities, research organizations, and state and national technical assistance centers. Collectively, the membership is involved in a wide range of activities including program and policy development, implementation strategies, research and evaluation, and financing. As a group, the Child and Family Evidence-Based Practices Consortium aims to bridge the gap between research, policy, and practice in child and adolescent mental health by providing a forum for sharing ideas and information about state-level implementation strategies, successes, and challenges regarding EBP. In the rest of this column, we present brief summaries of strategies being adopted in several participating states.

#### California

Adoption and implementation of specific EBPs in California is being accomplished through a transport vehicle referred to as the Community Development Team (CDT). The CDT is a pragmatic strategy developed by staff at the California Institute for Mental Health, a private, nonprofit group supporting the public mental health system, to bridge the gap between science and usual care practice. Key characteristics of the model include informing counties/agencies about, and soliciting and providing incentives for, implementation of specific EBPs; partnering with EBP developers to provide clinical training and consultation; providing concrete and tailored assistance in developing and executing implementation plans and overcoming organizational barriers; forming peer-to-peer networks to support exchange of information about implementation challenges and solutions; and developing a sustainability infrastructure within the state's public mental health system. Funds to support EBP implementation using

the CDT come from multiple sources including California foundations and the California State Department of Mental Health. CDT is also subject to a NIMH-funded randomized clinical trial specific to implementation of Multidimensional Treatment Foster Care.<sup>28</sup>

#### Colorado

The Center for Effective Interventions (CEI), part of the Metropolitan State College of Denver, has helped develop, train, and provide ongoing clinical direction to 30 Multisystemic Therapy<sup>29</sup> teams in six western states. In addition, the CEI promotes development of two other EBPs, Functional Family Therapy<sup>30</sup> and Multidimensional Treatment Foster Care. The CEI works with state and local administrators and provider agencies to reduce obstacles to funding EBPs and promote the development of databases that measure impact during and after EBP intervention. The CEI was initially funded through a Juvenile Accountability Incentive Block Grant but is now self-supporting through foundation support and training contracts.

#### Hawaii

In 1999 the Hawaii Child and Adolescent Mental Health Division began a large-scale initiative to identify and implement EBP for youths within the values and principles of a system of care. The Hawaii EBP initiative involved establishment of a standing committee to identify and define EBP and implementation of a statewide outcome measurement system. Hawaii began a process of building new "packaged" programs such as Multisystemic Therapy, Multidimensional Treatment Foster Care, and Functional Family Therapy. Additional activities aimed to evolve actual care to be more evidence based without requiring protocol-specific programming. These activities included best practice conferences, statewide training in specific EBPs (e.g., cognitive-behavior therapy for anxiety and depression, interpersonal therapy, dialectical behavior therapy, behavioral parent training), publication of practice guidelines, creation of provider practice networks, and identification and monitoring of common therapeutic practices that emerge across specific EBP protocols.<sup>2,23,31,32</sup> Funding for the initiative came from a variety of sources including general and special state funds, federal mental health block grant funds, federal foster care

training funds, project-specific federal grants, and integration of new services into the Medicaid state plan.

#### Michigan

A partnership among university evaluators, state administrators, and community providers has led to development of a client outcome data system that has been used to promote a continuous improvement process at the state, provider, practitioner, and family levels. Since the inception of this project 12 years ago, the team has emphasized modeling a collaborative, strength-based approach in interactions with providers and the use of empirical data to guide decision making and quality improvement efforts. Data on youths served, outcomes for various subgroups of youths, predictors of poor outcome, and community programs demonstrating exemplary outcomes for specific youths (using propensity analyses<sup>33</sup>), have been shared with stakeholders and generated interest in and facilitated decisions about implementation of specific EBPs, including cognitive-behavioral therapy of depression and parent management training. These initiatives have, in turn, been evaluated using the client-level accountability system, which uses the Child and Adolescent Functional Assessment Scale as its primary outcome measure.<sup>34</sup>

#### New York

New York State's Office of Mental Health has embarked on a series of initiatives to improve community-based clinical services for youths and families within a public health framework. This broad plan, called *Achieving the Promise for Children, Youth, and Families*, includes five core components, which are integrated programmatically and fiscally: a statewide early identification and assessment improvement program to promote early detection of mental health issues for children across a broad array of systems; the Evidence-based Treatment Dissemination Center that serves as the Office of Mental Health's focal point for delivering year-long training and consultation to clinicians and supervisors on specific therapies; an enhanced clinic rate structure to create incentives both for early detection and assessment and use of EBPs; the statewide Parent Empowerment Project to train and support a network of family advocates and advisors; and a set of research studies through an NIMH-funded

Developing Center grant to examine engagement and family support strategies to improve the uptake, sustainability, and outcomes of cognitive-behavioral therapy for trauma and depression. These initiatives are financed through a combination of funding sources including new state dollars, redirection of existing community-based resources, funding from other state agencies (e.g., Education), and external research grant support.

#### Ohio

In 2000 the Ohio Department of Mental Health embarked on a strategy to increase the awareness of and access to EBP and promising practices for youths, families, and adults by creating a number of Coordinating Centers of Excellence (CCOE), located in settings such as universities and community mental health boards. Each CCOE has a focus on a specific intervention and/or populations. For example, the Center for Innovative Practices focuses on youth and family interventions and the connection between EBPs and systems of care. It supports implementation of Multisystemic Therapy, Integrated Co-Occurring Treatment,<sup>35</sup> and Intensive Home-Based Treatment. The Center for Innovative Practices also supports providers and communities to undertake program evaluation and outcomes measurement. Another example is the Center for Learning Excellence, a CCOE that implements the Partnership for Success Initiative, which promotes a cross-system, data-informed planning process at the county level to prevent and respond effectively to child and adolescent problem behavior.<sup>24</sup> Funding for CCOEs is provided through block grant dollars via the Ohio Department of Mental Health, consulting contracts, and foundation support.

#### CONCLUSIONS

Members of the EBP consortium convene regularly to share experiences, consider lessons learned, and plan potential research studies. In doing so, group members consistently remark on the diversity of state approaches, a diversity barely touched on in the above examples. Although all of them are interested in capitalizing on the potential of EBP dissemination for children and families, what ultimately is implemented in each state is unique. In the second part of this column, we comment on the diversity of approaches being adopted

and describe some lessons learned that may be helpful for states, jurisdictions, and individuals such as those described in our introductory case study.

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## REFERENCES

- Chambers DA, Ringeisen H, Hickman EE. Federal, state, and foundation initiatives around evidence-based practices for child and adolescent mental health. *Child Adolesc Psychiatr Clin N Am.* 2005;14:307–327.
- Chorpita BF, Becker KD, Daleiden E. Understanding the common elements of evidence based practice: misconceptions and clinical examples. *J Am Acad Child Adolesc Psychiatry.* 2007;46:647–652.
- Glisson C, Schoenwald S. The ARC organizational and community intervention strategy for implementing evidence-based children's mental health treatments. *Ment Health Serv Res.* 2005;7:243–259.
- Kazdin AE, Weisz JR, eds. *Evidence-Based Psychotherapies for Children and Adolescents.* New York: Guilford; 2003.
- Hamilton J. Clinicians' guide to evidence-based practice. *J Am Acad Child Adolesc Psychiatry.* 2005;44:494–498.
- Hoagwood KE, Burns B, Kiser L, Ringeisen H, Schoenwald S. Evidence-based practice in child and adolescent mental health services. *Psychiatr Serv.* 2001;52:1179–1189.
- Mechanic D. The managed care backlash: perceptions and rhetoric in health care policy and the potential for health care reform. *Milbank Q.* 2001;79:35–54.
- Tanenbaum S. Evidence-based practice in mental health: practical weaknesses meet political strengths. *J Eval Clin Pract.* 2003;9:287–301.
- Bell NN, Shern DL. *State Mental Health Commissions: Recommendations for Change and Future Directions.* Washington, DC: National Technical Assistance Center for State Mental Health Planning; 2002.
- Magnabosco J. Innovations in mental health services implementation: a report on state-level data from the US Evidence-Based Practices Project. *Implement Sci.* 2006;1:1–13.
- U.S. Department of Health and Human Services. New Freedom Initiative on Mental Health. [www.mentalhealthcommission.gov/reports/FinalReport](http://www.mentalhealthcommission.gov/reports/FinalReport). Accessed January 12, 2004.
- National Institute of Mental Health. State implementation of evidence-based practices: II. Bridging science to service, 2002. <http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-05-004.html>. Accessed September 12, 2007.
- National Institute of Mental Health. Dissemination and implementation research in health, 2006. <http://grants.nih.gov/grants/guide/pa-files/PAR-06-071.html>. Accessed September 12, 2007.
- Moser LL, DeNL Luca GR, Bond AL. Implementing evidence-based psychosocial practices: lessons learned from statewide implementation of two practices. *CNS Spectr.* 2004;9:926–936.
- Hamilton J. The answerable question and a hierarchy of evidence. *J Am Acad Child Adolesc Psychiatry.* 2005;44:596–600.
- Fixsen DL, Naoom SF, Blase KA, Friedman RM, Wallace F. *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; 2005.
- Tanenbaum S. Evidence-based practice as mental health policy: three controversies and a caveat. *Health Aff.* 2005;24:63–173.
- Richmond JB, Kotelchuck M. Political influences: rethinking national health policy. In: McGuire CH, Foley RP, Gorr A, Richards RW, eds. *Handbook of Health Professions Education.* San Francisco: Jossey-Bass; 1983:386–404.
- Glisson C. The organizational context of children's mental health services. *Clin Child Fam Psychol Rev.* 2002;5:233–253.
- Rosenheck R. Organizational process: a missing link between research and practice. *Psychiatr Serv.* 2001;52:1607–1612.
- Glisson C, Dukes D, Green P. The effects of the ARC organizational intervention on caseworker turnover, climate, and culture in children's service systems. *Child Abuse Negl.* 2006;30:855–880.
- Drake R, Becker D, Goldman H, Martinez R. The Johnson and Johnson-Dartmouth Community Mental Health Program: disseminating evidence-based practice. *Psychiatr Serv.* 2006;57:302–304.
- Daleiden E, Chorpita B, Donkervoet C, Arensdorf A, Brogan M. Getting better at getting them better: health outcomes and evidence-based practice within a system of care. *J Am Acad Child Adolesc Psychiatry.* 2006;45:749–756.
- Julian DA. A community practice model for community psychologists and some examples of the application of community practice skills from the Partnerships for Success Initiative in Ohio. *Am J Community Psychol.* 2006;37:21–27.
- Panzano PC, Roth D. The decision to adopt evidence-based and other innovative mental health practices: risky business? *Psychiatr Serv.* 2006;57:1153–1161.
- Hodges K, Wotring J. Role of monitoring outcomes in initiating implementation of evidence-based treatments at the state level. *Psychiatr Serv.* 2004;55:396–400.
- Wotring J, Hodges K, Xue Y, Forgatch M. Critical ingredients for improving mental health services: use of outcome data, stakeholder involvement, and evidence-based practices. *Behav Ther.* 2005;28:150–158.
- Chamberlain PC, Reid JB. Comparison of two community alternatives to incarceration for chronic juvenile offenders. *J Consult Clin Psychol.* 1998;66:624–633.
- Henggeler SW, Schoenwald SK, Borduin CM, Rowland MD, Cunningham PB. *Multisystemic Treatment of Antisocial Behavior in Children and Adolescents.* New York: Guilford; 1998.
- Alexander JF, Pugh C, Parsons BV, Sexton TL. Functional family therapy. In: Elliott DS, series ed. *Blueprints for Violence Prevention (Book 3): Functional Family Therapy.* 2nd ed. Golden, CO: Venture; 2000.
- Chorpita BF, Yim LM, Donkervoet JC, et al. Toward large-scale implementation of empirically supported treatments for children: a review and observations by the Hawaii Empirical Basis to Services Task Force. *Clin Psychol.* 2002;9:165–190.
- Daleiden E, Chorpita B. From data to wisdom: quality improvement strategies supporting large-scale implementation of evidence based services. *Child Adolesc Psychiatr Clin N Am.* 2005;14:329–349.
- Hodges K, Grunwald H. The use of propensity scores to evaluate outcome for community clinics: identification of an exceptional home-based program. *J Behav Health Serv Res.* 2005;32:292–303.
- Hodges K. Child and Adolescent Functional Assessment Scale (CAFAS). In: Maruish ME, ed. *The Use of Psychological Testing for Treatment Planning and Outcome Assessment.* 3rd ed. Mahwah, NJ: Erlbaum; 2004:405–441.
- Clemminshaw H, Shepler R, Newman I. The integrated co-occurring treatment (ICT) model: a promising practice for youth with mental health and substance abuse disorders. *J Dual Diagn.* 2005;1:85–94.

Evidence-based practice (EBP) is a problem-solving approach to the delivery of health care that integrates the best evidence from research with clinical expertise and patient preferences and values. This is the fifth article in a series from the Arizona State University College of Nursing and Health Innovation's Center for the Advancement of Evidence-Based Practice. Evidence-based practice (EBP) is a problem-solving approach to the delivery of health care that integrates the best evidence from studies and patient care data with clinician expertise and patient preferences and values. Hospital Rapid Response Team / organization & administration. Humans. Information Storage and Retrieval / methods. Evidence-based practice (EBP) is the idea that occupational practices ought to be based on scientific evidence. That at first sight may seem to be obviously desirable, but the proposal has been controversial. Evidence-based practices have been gaining ground since the formal introduction of evidence-based medicine in 1992 and have spread to the allied health professions, education, management, law, public policy, and other fields. In light of studies showing problems in scientific research (such as State administrators consider the data in generating policy and identifying systemwide needs. The processes that shaped this initiative and that created the providers' investment in continuous quality improvement activities are described. State implementation of evidence-based practice for youths, Part I: Responses to the state of the evidence. Eric J Bruns, K. Hoagwood. Psychology, Medicine. Journal of the American Academy of Child and Adolescent Psychiatry. 2008. 69. PDF. state. 2. evidence. 1. youths. 1. evidence-based. 1. practice. 1. responses. 1. The Emergence of Digital Opinion Leaders + Blood Cancer DOL Dashboard. This month we've pulled together a dashboard of 20 of the most impactful Digital Opinion Leaders (DOLs) related to Blood Cancers. Please take a live look at the DOL Board for this group of experts. Read Article. Similar Publications. Please type a message to the paper's authors to explain your need for the paper. Paper: State implementation of evidence-based practice for youths, Part I: Responses to the state of the evidence. To: Eric J Bruns, Kimberly Eaton Hoagwood. From (Name): E-mail: Only shared with authors of paper. Please enter a personalized message to the authors. Evidence-Based Practices and Implementation Science in Special Education. December 2013. Exceptional Children 79(2):135-144. The cross-disciplinary field of implementation science has great relevance for translating the promise of EBPs into positive outcomes for children and youth with disabilities. This article examines the history, extent, and limitations of EBPs and describes the emergence and current state of implementation science as applied in special education.