REPORT ON

Emotional & Behavioral Disorders in Youth™

EVIDENCE-BASED ASSESSMENTS • INTERVENTIONS FOR THE REAL WORLD

Volume 11, No. 2 | Pages 29 - 58 | ISSN 1531–5479 | Spring 2011

Editor's Corner

Implementation and Services for Youth With Emotional and Behavioral Disorders: An Interview With Karen Blase

In what ways do you help improve the lives of youth—and youths' families—who are affected by emotional and behavioral disorders? Whether you do so as a clinician, policymaker, supervisor, administrator, researcher, or all of the above, it is likely that you have a stake in the practice and science of implementation.

In addition to an excellent article on our field's evolving conceptualizations of pediatric bipolar disorder, by Samuel Maddox and Terry Lee, this issue of *EBDY* includes two articles that shine a spotlight on issues related to the implementation of services to these children and youth.

One article, by Melanie Barwick, focuses on the workforce issues facing our field. A second, by Elizabeth Douglas and colleagues, described the work of the National Child Traumatic Stress Network and the factors that help and hinder the implementation of effective treatments for children exposed to violence.

In light of this issue's focus on the implementation and workforce issues facing our field, and the advent

Sponsored by **the Children's Mental Health Evidence-Based Practice Institute, University of Washington**

of the first-ever Global Implementation Conference, to be held in Washington, DC, this August, we thought we would ask Karen Blase, co-director of the National Implementation Research Network, a few questions about implementation and how it relates to services for youth with emotional and behavioral disorders.

What Led You to Decide to Dedicate Your Career to the Practice and Science of Implementation?

KB: Well, maybe early learning matters! My father was a county extension agent and I'd tag along as he brought the latest science from the state university to the ranchers and farmers in our county. Maybe I picked up the implementation "bug" from him. And it's only in the past 10 years that I've been focused on the practice and science of implementation. My earlier work involved actually getting science into service, being a purveyor of the Teaching-Family Model, and providing child welfare and mental health services. Those experiences led me to appreciate how important it was to build the confidence and competence of staff, deal effectively with organization and systems, and nurture leadership at all levels.

From an Implementation Standpoint, What Are the Keys to Producing More Consistent and Effective Services for Children and Youth With Emotional and Behavior Disorders?

KB: Of course, we need interventions and prevention strategies that have been demonstrated to produce positive outcomes—an effective "what" that is selected to meet the needs of children and youth. And the effective "what" needs to be well defined and operationalized. Implementation is relevant and important only when both these conditions are met.

Then we need to pay equal attention to the "how," so that we get those effective interventions to come to life in the real world. This means purposefully providing supports and better aligning systems to help practitioners, administrators, funders, and policymakers change their behavior.

If the behavior of well-meaning human service professionals and policymakers does not change to support the intervention ... well, children and families cannot benefit from interventions they do not receive. We need to have both the effective "what" and the effective "how" to achieve better outcomes. And just as there are research-based interventions for the "what," there are research and evaluation-informed implementation practices to create the "how." We need to use the best implementation science to be sure that interventions are implemented as intended and improved and sustained over time.

"Then we need to pay equal attention to the 'how,' so that we get those effective interventions to come to life in the real world."

What Do You See as the Biggest Challenges to Effective Implementation?

KB: I see three key issues. First, we need more rigorous and better-funded research related to implementation. Nearly all of the research efforts and dollars continue to focus on creating new and better interventions. And this is important. But we already know a great deal about what works. Unfortunately that knowledge is in journals and manuals.

Second, we need to make the case that implementation infrastructure needs to be funded in order to benefit from

REPORT ON
Emotional & Behavioral Disorders in Youth™

Report on Emotional & Behavioral Disorders in Youth is published quarterly by Civic Research Institute, Inc., 4478 U.S. Route 27, P. O. Box 585, Kingston, NJ 08528. Periodicals postage pending at Kingston, NJ and at additional mailing offices. Subscriptions: $165 per year in the United States and Canada. $30 additional per year elsewhere. Vol. 11 No. 2, Spring 2011. POSTMASTER: Send address changes to Civic Research Institute, Inc., P.O. Box 585, Kingston, NJ 08528. *Report on Emotional & Behavioral Disorders in Youth* is a trademark owned by Civic Research Institute, Inc., and may not be used without express permission.

For information on subscribing or other service questions contact customer service: (609) 683-4450 or civres2@aol.com

evidence-based practices (EBPs). Service systems are used to paying for face-to-face service (e.g., therapy, counseling, program time), but we need to make the case through research and evaluation that implementation infrastructure is critical. What I mean by "implementation infrastructure" is the attention to staff selection, training, coaching, fidelity and outcome measurement, data-based decision making, and processes to create more hospitable agency environments and better alignment of policies and funding to support effective implementation.

Third, we need generalized implementation capacity in states. This means developing implementation practitioners and implementation structures that can support multiple evidence-based and evidence-informed interventions. We are seeing this develop in the form of intermediaries that support multiple interventions in states and that connect program developers to state needs. What can we learn about the effectiveness of these intermediaries and how can they be supported? The alternative will be technical assistance silos for every EBP.

What Opportunities Do You See in Our Systems Right Now to Help Draw Attention to the Importance of Implementation?

KB: This federal administration seems to be particularly supportive of evidence-based and evidence-informed approaches to solving problems, and we are seeing a lot of attention not only to EBPs and evaluation, but to using the practice and science of implementation at the federal level—from funding planning years and developing implementation plans, to learning from implementation experts and providing implementation-informed technical assistance. A very exciting time!

Editor's Note: *Another opportunity to discuss implementation will be the upcoming Global Implementation Conference to be held in Washington, DC, on August 15 through 17 at the Marriott Wardman Hotel (www.implementationconference.org). This will be an exciting gathering of researchers, practitioners, policymakers, purveyors, and organizational leaders and just the start of a global implementation initiative that will extend over the next decade.*

"We need to make the case that implementation infrastructure needs to be funded in order to benefit from evidence-based practices."

—Eric J. Bruns (*ebruns@u.washington.edu*) ■

Master's Level Clinician Competencies in Child and Youth Behavioral Healthcare

by Melanie Barwick*

Introduction

As the field of behavioral child and youth healthcare struggles with closing the research-to-practice gap and implementing evidence-based practices (EBPs) and treatments with proven efficacy in practice environments, concern has arisen as to whether clinicians entering the workforce are suitably trained to take on the challenge of delivering EBPs (Barwick et al., 2008). There are a growing number of evidence-based treatments for children and youth presenting with emotional and behavioral problems. However, a handful of reports have suggested that practitioners are not prepared to deliver them or to work in EBP-focused work environments (Lehman et al., 1998; Hoge et al., 2004; Hoge, Tondora & Marrelli, 2005; Institute of Medicine 2000; 2001; 2003). We have a mental health workforce dilemma.

Institutions of higher learning and professional development training are the main sources of workforce preparation for child and youth clinicians. However, evidence from the health field suggests that few educational programs transfer EBP knowledge into the educational curriculum at a pace needed to meet the demand (Grimshaw et al., 2001). Educational content that misses the mark is an added concern. There are significant and widespread concerns about the capability of the behavioral healthcare workforce to provide quality care. The Annapolis Coalition on the Behavioral Health Workforce (2007, p. 1) notes that:

> There is overwhelming evidence that the behavioral health workforce is not equipped in skills or in numbers to respond adequately to the changing needs of the American population. While the incidence of co-occurring mental and addictive disorders among individuals has increased dramatically, most of the workforce lacks the array of skills required to assess and treat persons with these co-occurring conditions. Training and education programs largely have ignored the need to alter their curricula to address this problem and, thus, the nation continues to prepare new members of the workforce who simply are underprepared from the moment they complete their training.

The improvement of care and the transformation of systems of care depend on a workforce that is adequate in size and effectively trained and supported. The Annapolis Coalition argues that there is substantial and alarming evidence that the current workforce lacks adequate support to function effectively and that it is largely unable to deliver care of proven effectiveness in partnership with the people who need services. There is equally compelling evidence of a weak pool of new recruits to meet the complex behavioral health needs of the growing and increasingly diverse population in this country.

Our educational systems have not kept pace with the dramatic changes in healthcare (Hoge, 2002). Educational programs have been slow to introduce practice guidelines into clinical teaching and to prepare students to practice evidence-based mental health (Crits-Christoph et al., 1995; Yager et al., 1997). A 2002 review of the gaps between research evidence and clinical practice concluded that for evidence-based interventions to become embedded within clinical practice, they need to be introduced early in formal educational training programs (Weissman & Sanderson, 2002). The President's New Freedom Commission on Mental Health (2003) echoed this finding.

Research on Staff Competency

A competency is a measurable human capability that is required for effective performance. It consists of knowledge, a single skill or ability, or personal characteristic, or a cluster of these building blocks of work performance. Successful completion of most tasks requires the simultaneous or sequenced demonstration of multiple competencies (Hoge, Tondora & Marrelli, 2005, p. 517), yet few empirical studies have examined the knowledge, skills, competencies, and attitudes needed to effectively implement and/or deliver one or more evidence-based treatments in child and youth behavioral healthcare (Schoenwald et al., 2010).

A handful of studies shed some light on the nature of the problem. A survey of clinical training and internship directors conducted a decade ago found that although most programs provided supervised clinical experience in a number of empirically validated treatments, more than 20% of doctoral training programs failed to provide minimal coverage of empirically validated treatments in didactic courses, and internship programs typically did not require that students be competent in any of these treatments before completion of their program (Crits-Chrisoph et al., 1995). A national survey of psychotherapy training in psychiatry, psychology, and social work conducted to determine the amount of evidence-based treatment taught in accredited training programs for these disciplines found that only 17.8% of the evidence-based treatments and 23.2% of non- evidence-based treatments met a gold standard of instruction—both didactic and clinical supervision. Moreover, the two disciplines geared exclusively to clinical mental health practice (Psy.D. and M.S.W. programs) had the largest percentage of programs (67.3% and 61.7%) not requiring the gold standard of instruction on any evidence-based treatment (Weissman et al., 2006).

At least one other group has examined the specific competencies staff would need to deliver newly established EBPs (Easterly, 2009). A series of focus groups were conducted by the New York State Social Work Mental Health Education Consortium, established as a partnership between the New York State Dean's Consortium of Schools of Social Work, the New York State Office of Mental Health (NYSOMH), and more than 100 provider agencies that provide EBTs, in an effort to formulate a strategic vision. The findings, reported in Smyth, Wright, and Williams (2004), identified that agency staff felt it would be important for students to learn the five EBPs that NYSOMH was currently

*Melanie Barwick, Ph.D., C.Psych., is a registered psychologist and health systems research scientist in the Community Health Systems Resource Group at the Hospital for Sick Children. She is an associate scientist and scientific director of knowledge translation in the Child Health Evaluative Sciences program of the hospital's Research Institute and associate professor in the Department of Psychiatry and the Dalla Lana School of Public Health at the University of Toronto. She can be reached by email at melanie.barwick@sickkids.ca.

implementing across the state so that they could fill staff vacancies in these programs. They also highlighted the importance of knowledge in recovery-oriented principles, motivational interviewing, assessment of trauma and related disorders, medication management, and cognitive behavioral interventions. In addition to treatment skills, focus group participants stressed the need for social workers to acquire knowledge of organizational stages of change and the adaptive capacity needed to adjust as agencies adopt and implement EBPs.

Smyth and colleagues (2004) also conducted a survey to identify gaps between current skills taught in social work curricula and the specific competencies identified by focus group participants. Results from 26 bachelor's and 13 master's level schools of social work throughout New York State indicated that general mental health coursework was taught at most schools, but that most coursework lacked information on current treatment for individuals with severe mental illness and that little time was spent on recovery-focused interventions. Of note, most social work students were not exposed to all of the EBPs that the focus group participants had identified as being implemented throughout the state.

Thus, research on mental health training and educational programs highlights the need to train practitioners on specific EBPs and/or the common elements of EBPs (Chorpita et al., 2005) using a combination of coursework and internship in order to facilitate the transfer of knowledge to practice (Hoge et al., 2004; Ishisaka et al., 2004; Lam, 2004). The Smyth et al. (2004) review precipitated the development of a seminar course addressing 14 key topics that would be offered alongside colloquia and field work; this had been favorably, albeit subjectively, evaluated in 11 schools as of 2006–2007 (Easterly, 2009). Students (n = 156) taking part in the pilot course rated themselves on their use of EBP skills in the class environment and in their practice both before and after the course. They reported significant increases in their perceived ability to use EBP skills with clients having serious mental illness. Although there are quality limitations associated with their subjective outcome measure, the study illustrates the kind of research on EBP skill development that is greatly needed.

The Current Study

The President's New Freedom Commission on Mental Health (2003) called for training of professionals to instill attitudes, behaviors, and skills that are congruent with the changing field of mental health, including the focus on using techniques and treatments supported by research evidence. At the same time, implementation science is developing our knowledge base for how best to implement EBPs and support practice change. Therein lies the focus of the work reported here. The current study used a survey of supervisors and managers to examine the competencies required of master's trained clinicians in child and youth behavioral healthcare that will enable the field to improve practice and outcomes for children and youth. As others have reported, much of the difficulty in diffusing innovative and effective techniques and treatments into "real world" practice is that training programs are not adequately preparing students for work in the real world (Hoge & Morris, 2002). Our knowledge of how best to promote practice change is evolving but remains imprecise, and educational programs are not preparing students for the continuous learning and reflective practice skills they will need in the workforce as the field continues to generate evidence and innovate. The current study was intended to highlight what is needed to promote evidence-based practice in children's behavioral health provider organizations, institutions of higher learning, accreditation bodies, and among researchers.

Study Method

Sampling. The survey was intended for individuals who 1) have supervisory and/or hiring responsibilities, and 2) are involved in providing child and youth mental health services within the child and youth mental health, juvenile justice, or child welfare sectors. The sampling frame for all master's trained clinicians working in child and youth behavioral health care in the United States and Canada is unknown, because there are no registries or professional associations that cover the spectrum of behavioral healthcare or geography. As such, a snowball sampling strategy was used to reach as many respondents as possible. An email with an embedded survey link was sent to 41 members of the Child and Youth Evidence-Based Practices Consortium (*www.ebpconsortium.com*) in March 2010, inviting them to complete the survey and/or "snowball" the request to their networks and contacts working in this field. Several reminders were sent to consortium members before the survey closed in August 2010.

Survey. The survey was distributed as a web link for electronic completion. Data were stored on SurveyMonkey™ in a secure server environment. Respondents consented within the survey regarding its use to describe the current state of EBP competencies among master's trained clinicians and to inform higher education curricula in ways that may improve the field. The study was approved by the Hospital for Sick Children's research ethics board.

The survey was divided into several sections to capture knowledge of EBP terminology and key competencies in several areas:

- Research and analytical skills;
- Assessment and diagnosis;
- Intervention and outcome evaluation; and
- Clinical therapeutic skills.

A section was included to capture general considerations regarding competencies. Respondents were asked to rate whether knowledge, competency, or skill was important for effectiveness on the job, whether master's level clinicians had this knowledge, competency, or skill when hired, and/or whether they learned the knowledge, competency, or skill on the job. Options were provided for respondents to indicate whether the knowledge, skill, or competency was "not relevant for their organization," "not important," or if they had "no opinion." Because there were very few endorsements for these latter three categories, they are reported as one combined response category. Response options were not mutually exclusive, and respondents were instructed to endorse all that applied for each item.

Study Results

Respondent Demographics. The survey was accessed by 1,009 individuals between March 21, 2010, and August 20, 2010. Among these, 900 identified themselves as 1) having supervisory and/or hiring responsibilities, and 2) being involved in providing child and youth mental health services within the child and youth mental healthcare sector, juvenile justice sector, or child welfare sector. Consent to participate was provided by 589 respondents, and they made up the final sample.

The majority of respondents were from the United States (USA, 84%; Canada, 16%). Respondents were mostly female (71%) and between 36 and 55 years of age (55%). Most had received their highest degree in social work (40%), followed by

counseling (24%) and psychology (21%). The highest levels of education were M.A., M.S.W., M.Sc. (66%), and Ph.D. (11%). The majority identified themselves as managers of clinical services/treatments/programs (56%) or directors (44%). Eighty-four percent of respondents were responsible for hiring master's trained clinicians, and 91% were supervisors of this group. Slightly more than half (57%) had held these responsibilities for one to 10 years.

Settings. Respondents were located in urban (67%), rural (31%), and remote/frontier settings (2%). More than half (64%) of the provider organizations serve as training sites for master's level programs related to child and youth mental health. Half (49%) of the organizations receive training, supervisory, or fidelity support from a purveyor organization in support of a particular EBP or program, the most common of which are multisystemic therapy (MST, 35%; Henggeler et al., 1998); trauma-focused cognitive behavioral therapy (TF-CBT, 25.8%; Cohen et al., 2006); functional family therapy (FFT, 19.4%; Alexander & Parson, 1982); and parent-child interaction therapy (PCIT, 11%; Eyberg, 1988). The average number of employees providing clinical services across 547 organizations was 89, whereas 48.7% of employees provided evidence-based services in 527 organizations, with 6.2 master's placements per year. Nearly three-quarters (73.4%) had budgets over $2 million, with nearly one-third (28%) at over $10 million (Table 1).

Clinicians' Understanding of EBP Terminology

There was general agreement among respondents that knowledge of the term "evidence-based practice" is necessary for effectiveness in the workplace (73%). Yet, more clinicians learn this term in the workplace (73%) than know it when they are hired (41%). Similar results were found for all terms, including "outcome measurement" (71% necessary; 72% learn on the job; 37% know it when hired), "outcome management" (69% necessary; 72% learn on the job; 25% know it when hired), "systems of care" (73% necessary; 69% learn on the job; 38% know it when hired), "promising practices" (45% necessary; 60% learn on the job; 24% know it when hired), "fidelity" (66% necessary; 69% learn it on the job; 24% know it when hired), and "intervention strategies" (79% necessary; 65% learn it on the job; 62% know it when hired) (see Figure 1).

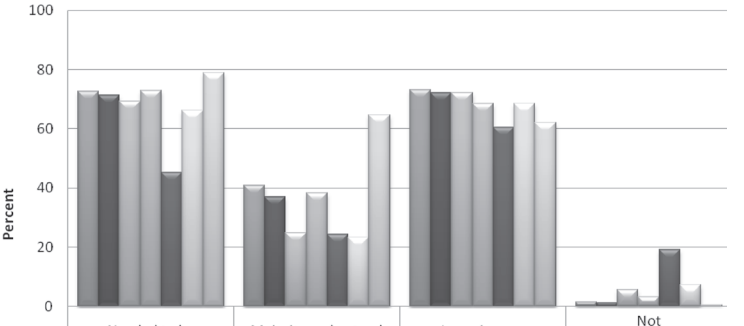
Clinicians' Knowledge of Research and Analytical Skills

Clinicians' competencies with respect to research and analytical skills, specifically knowledge of critical appraisal, scientific approach to knowledge building, and scientific technique, were also identified as essential for effectiveness on the job to varying degrees, with all three skills reportedly acquired on the job rather than being within the master's clinicians' repertoire when hired. Critical appraisal skills were thought to be necessary for effectiveness on the job by slightly greater than half of respondents (56%), and there was even greater consensus for the importance of a scientific approach to knowledge building (69%). Less importance was placed on scientific technique as necessary for effectiveness on the job (43%). All three skills are learned on the job (critical appraisal 55%; scientific approach 64%; and scientific technique 54%), rather than within the master's clinicians' repertoire when hired (see Figure 2).

Clinicians' Knowledge of Assessment and Diagnosis Skills

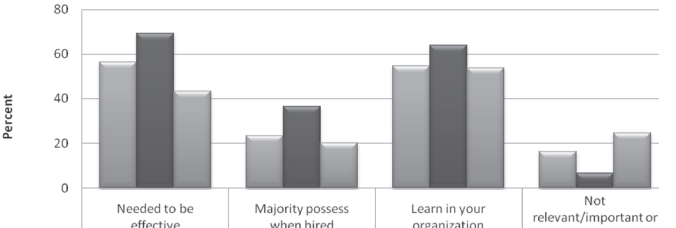
With respect to master's clinicians' competencies relative to assessment and diagnostic skills related to evidence-based practice, respondents identified all skills in this domain as "needed" in order to be effective on the job. The skills related to assessment and diagnosis regarded as most needed for effectiveness on the job included acceptance of clinical supervision as a primary means

Figure 1: Knowledge of Evidence-Based Terminology (% of 589)



	Needed to be effective	Majority understand when hired	Learn in your organization	Not relevant/important or no opinion
Evidence-Based Practice	72	41	73	2
Outome Measurement	71	37	72	1
Outcome Management	69	25	72	6
Systems of Care	73	38	69	3
Promising Practices	45	24	60	19
Fidelity	66	23	69	7
Intervention Strategy	79	65	62	1

Figure 2: Competencies in Research and Analytic Skills (% of 589)



	Needed to be effective	Majority possess when hired	Learn in your organization	Not relevant/important or no opinion
Critical Appraisal	56	24	55	16
Scientific Approach to Knowledge Building	69	36	64	7
Search Techniques	43	20	54	25

of learning and helping clients achieve outcomes (80%), understanding the relationship between diagnosis, treatment goals, and planning (81%), and understanding the principles of active client participation in treatment planning (78%) (see Figure 3).

There was also high consensus that clinicians must be competent with respect to theories and research relative to practice change (72%), with respect to the DSM-IV (68%), and with respect to appropriate screening and assessment tools (71%). When hired, clinicians reportedly possess familiarization with the DSM-IV (73%) and recognize clinical supervision as a primary means of learning and helping clients achieve outcomes (64%), but they understand the relationship between diagnosis, treatment goals, and planning (60%) to a slightly lesser extent. When hired, few clinicians possess familiarization with screening tools (43%) or understand the principles of active client participation in treatment planning (53%), and far fewer demonstrate the ability to combine EBP manuals and treatment knowledge with the needs of the client (25%). As in other areas of competency, most of these skills are learned within the practice environment.

Clinicians' Knowledge of Intervention and Outcome Evaluation Skills

More than 75% of the respondent group identified knowledge about intervention and outcome evaluation as needed for effective evidence-based practice. The most commonly endorsed competencies in this area were an understanding of methods for engaging the client with the means and ends of treatment (84%) and awareness of the strength-based approach to treatment (81%). Knowledge of means to assess goal attainment (79%) and reasonable outcome expectations (77%) were also considered essential for effective practice. Nevertheless, fewer than half of the respondents felt that clinicians possess these competencies when hired, and upward of 60% of respondents believe these skills are learned on the job (see Figure 4).

Clinicians' Knowledge of Clinical Therapeutic Skills

Among clinical therapeutic skills, the most highly endorsed as necessary for evidence-based practice were:

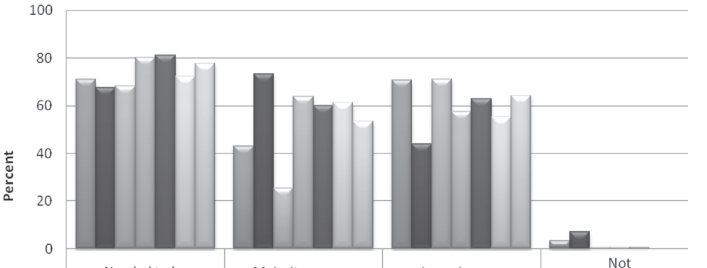
- The application of good communication skills to foster therapeutic alliances grounded by trust (84%);
- Understanding the biological, cognitive, affective, and cultural factors affecting mental health and well-being and mental health care delivery; and
- Understanding issues of diversity (80%).

Other competencies considered important for effective evidence-based practice included:

- Competencies for life-long learning and professional development and a readiness to learn specific evidence-based treatments and practices (78%);
- A broad knowledge of the science of behavior, the relationships between behavior and health and the mechanisms of behavior change (75%);
- The ability to use some of the basic components of EBPs in children's mental health service delivery (71%); and
- Having skills in at least one evidence-based treatment intervention (68%).

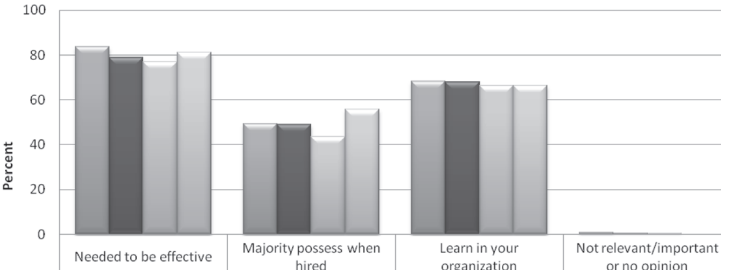
The application of research evidence in the client interaction was somewhat of an outlier among the clinical skills listed in this domain, with 57% reporting that this skill was needed to be effective on the job and only 24% perceiving that clinicians have this knowledge when they are hired. There was some variation with respect to the skills clinicians are perceived as having when they are hired. Eighty percent are thought to possess good communication skills and roughly two-thirds to demonstrate

Figure 3: Competencies in Assessment and Diagnostic Skills (% of 589)



	Needed to be effective	Majority possess when hired	Learn in your organization	Not relevant/important or no opinion
Screening Tools	71	43	71	3
DSM-IV	68	73	44	7
Combines EBP and Client Needs	68	25	71	0
Supervision	80	64	58	0
Diagnosis & Planning	81	60	63	0
Theories of Change	72	61	55	0
Active Client Participation	78	53	64	0

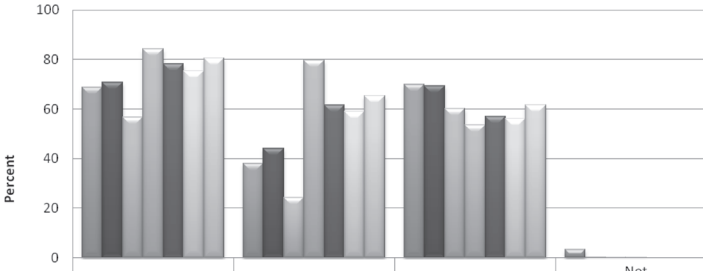
Figure 4: Competencies in Intervention and Outcome Evaluation Skills (% of 589)



	Needed to be effective	Majority possess when hired	Learn in your organization	Not relevant/important or no opinion
Client Engagement	84	49	68	1
Goal Attainment	79	49	68	0
Outcome Expectations	77	44	66	0
Strength-Based Approach	81	56	66	0

competencies for life-long learning (62%). Sixty-five percent are judged to understand the factors affecting mental health, but only 59% to understand the factors affecting behavior change. Fewer still are perceived to demonstrate skill in some basic component of EBP (44%) or actual use of an EBP (38%) when they arrive on the job. A small minority is deemed to have competency in applying research knowledge in the clinical context (24%) (see Figure 5).

Figure 5: Competencies in Clinical Therapeutic Skills (% of 589)



	Needed to be effective	Majority possess when hired	Learn in your organization	Not relevant/important or no opinion
Skill in One EBT	69	38	70	3
Can Use Basic EBPs	71	44	69	0
Apply research	57	24	60	0
Good communication skills	84	80	53	0
Life-long learning	78	62	57	0
Behavior change	75	59	56	0
Factors affecting mental health	80	65	61	0

Clinicians' Level of Preparation

Respondents were asked to identify the extent to which they felt new master's trained hires are prepared for evidence-based practice. Of 589 respondents, the largest group (n = 219, 43%) felt master's clinicians were "minimally prepared" for evidence-based practice, while 38% (n = 199) felt they were "moderately prepared." Fourteen percent (n = 83) perceived new hires as "barely prepared." Fewer than 3% (n = 17) perceived new hires as being "very prepared" for evidence-based practice.

Gaps in Competencies Between Academic and Practice Worlds

Respondents were asked to identify three major gaps in competencies, based on their supervisory experience. A total of 524 open-ended responses were coded for main themes by the author. Gaps align with the findings presented for earlier survey items regarding knowledge and skills deemed essential for effective practice. The greatest gaps, identified by 12% to 14% of respondents, included general knowledge of evidence-based practice, real-world experience, the ability to apply theory in practice, and general failures of the educational system in preparing the workforce. Slightly fewer than 10% identified gaps related to aspects of the practice world (e.g., documentation, teamwork, managing caseloads), knowledge of various topics related to child and youth behavioral healthcare, engagement and motivational skills, outcome management, and assessment and problem formulation.

Preferred Knowledge Upon Job Entry

When asked in an open-ended question what they would like master's trained clinicians to know coming into the job, 30% of 589 respondents reported that greater knowledge of EBPs is needed when entering the workforce. Other areas of knowledge required upon job entry, identified by 10% to 15% of statements, include client engagement skills, documentation and writing skills, knowledge of outcome management and measurement, and skills in applying theory to practice, particularly knowledge of behavior change, topical knowledge, treatment formulation and planning skills, diagnostic and assessment skills, and a lifelong appreciation of continuous learning for professional development.

Interface With Institutions of Higher Learning Regarding Master's Preparation

Respondents were asked whether anyone in their organization had been in contact with local institutions of higher learning (IHL) to discuss the level of preparation of master's graduates working in child and youth mental health. Twenty-five percent said they had, 36% said they had not, and 39% were uncertain. A proportion of respondents (n = 141) described the nature of those contacts as involving practicum considerations (45%), and only a small proportion had dealt with issues of curriculum recommendations (16%), intern competencies (15%), or educational considerations such as coursework development (2%). Fifteen percent link with IHLs through their teaching activity and 4% sit on boards or advisories.

Discussion

Providers of child and youth mental health services across North America are beginning to heed the call for the provision of EBPs in order to address a growing need for effective services to ensure the best outcomes for children. Although the current study participants cannot be considered representative, and may be more likely than others to embrace EBPs as a route to improved outcomes (given the nature of snowball sampling), results suggest that many providers have moved to some level of recognition that EBP competencies are essential in the workforce. This survey of 589 senior managers in child and youth behavioral healthcare from the United States and Canada echoed the concerns made in previous reports (Hoge et al., 2004; Hoge, Tondora & Marrelli, 2005; Smyth et al., 2004) regarding the relatively poor state of competencies related to evidence-based practice among the child and youth behavioral healthcare workforce (Hoge et al., 2004; Hoge, Tondora & Marrelli, 2005; Institute of Medicine 2000; 2001; 2003; Lehman et al., 1998).

Knowledge of terms and concepts are strongly perceived as laying the foundation for good practice, as are competencies in research and analytical skills, assessment and diagnosis, intervention and outcome evaluation, and clinical therapeutic skills. Although there was variation in the degree to which competencies were perceived as essential for effective EBP practice, most were highly regarded as such by the majority of respondents. There was also high consensus that, for the most part, very few clinicians are hired with these competencies established but, rather, that they learn them on the job. To some degree, this may be appropriate, because the real-world practice context may very well be the best learning environment for certain skills. Only in the practice context can

Table 1: Province and State Representation

Answer Options	Response Percent	Response Count
Canada		
Alberta	1.2%	7
British Columbia	0.3%	2
Manitoba	0.0%	0
New Brunswick	0.2%	1
Newfoundland and Labrador	0.2%	1
Northwest Territories	0.0%	0
Nova Scotia	0.2%	1
Nunavut	0.0%	0
Ontario	13.4%	79
Prince Edward Island	0.0%	0
Quebec	0.0%	0
Saskatchewan	0.0%	0
Yukon	0.0%	0
United States		
Alabama	0.2%	1
Alaska	0.0%	0
Arizona	1.9%	11
Arkansas	0.7%	4
California	3.9%	23
Colorado	4.1%	24
Connecticut	4.6%	27
Delaware	1.9%	11
District of Columbia	0.5%	3
Florida	2.4%	14
Georgia	0.3%	2
Hawaii	4.2%	25
Idaho	0.0%	0
Illinois	2.4%	14
Indiana	0.0%	0
Iowa	0.0%	0
Kansas	0.0%	0
Kentucky	5.8%	34
Louisiana	1.2%	7
Maine	0.3%	2
Maryland	1.2%	7
Massachusetts	1.2%	7
Michigan	1.4%	8
Minnesota	3.4%	20
Mississippi	2.0%	12
Missouri	3.7%	22

(*continued*)

clinicians come to appreciate the relevance of their knowledge base as they apply and develop certain expertise, or develop the skills necessary to manage case loads and documentation requirements. There is, however, also a sense that a better grounding in knowledge and skills is needed and could be developed in the educational context prior to entering the workforce. Precisely the question of which skills and competencies should be acquired while in school, as opposed to which should be acquired in the workforce, needs to be teased out to inform curricula, improve workforce competencies, and lessen the educational burden held by provider organizations.

At the same time, we must bear in mind that individual competency is but one determinant of effective work performance (Hoge et al., 2005), which itself is only one aspect of effective evidence-based practice (Damschroder et al., 2009). Several characteristics have been identified as important for evidence-based practice in the workforce (Damschroder et al., 2009), including:

- Intervention characteristics (e.g., evidence strength and quality);
- Outer setting factors (e.g., patient needs, resources, incentives);
- Inner setting factors (e.g., culture, leadership engagement, implementation climate);
- Characteristics of the individuals involved (e.g., knowledge and beliefs about EBPs, self-efficacy, stage of change); and
- Process (e.g., planning, reflection).

The Consolidated Framework for Implementation Research (Damschroder et al., 2009) provides an overarching typology of overlapping factors identified across multiple theories for implementing EBPs. Workforce preparation for evidence-based practice and the qualities related to EBPs themselves are both embedded in their main constructs—specifically, in the characteristics of the individuals involved and kinds of intervention.

Intervention characteristics play a role in the implementation and subsequent use of EBPs in the workplace. In particular, perceptions of the legitimacy of the source of the EBP is a factor (Greenhalgh et al., 2004), as is the source and quality of the evidence base (Rycroft-Malone et al., 2002). The extent to which practitioners perceive advantages associated with the EBP (e.g., relative advantage; Gustafson et al., 2003) and the degree to which an intervention can be adapted, tailored, refined, or reinvented to meet local

Table 1: Province and State Representation *(continued)*

Montana	0.0%	0
Nebraska	0.2%	1
Nevada	1.7%	10
New Hampshire	0.2%	1
New Jersey	0.2%	1
New Mexico	2.5%	15
New York	4.8%	28
North Carolina	0.8%	5
North Dakota	0.0%	0
Ohio	10.0%	59
Oklahoma	1.2%	7
Oregon	2.5%	15
Pennsylvania	4.8%	28
Rhode Island	0.3%	2
South Carolina	0.7%	4
South Dakota	0.0%	0
Tennessee	0.0%	0
Texas	2.0%	12
Utah	1.5%	9
Vermont	0.0%	0
Virginia	0.2%	1
Virgin Islands	0.0%	0
Washington	3.2%	19
West Virginia	0.2%	1
Wisconsin	0.0%	0
Wyoming	0.0%	0

needs are also important (Greenhalgh et al, 2004; Rogers, 2003). The complexity, trialability, and cost of the EBP are elements of several implementation models (Greenhalgh et al., 2004; Rogers, 2003).

Theories have identified several characteristics of individuals—the practitioners—as key to EBP use and implementation. Use of EBPs in treatment fundamentally involves their implementation and the concomitant organizational and practitioner change that is required. Here, knowledge and beliefs about the intervention are pertinent, as well as familiarity with facts, truths, and principles related to the intervention. Skill in using the intervention relies on adequate knowledge of both the EBP and the underlying principles or rationale for adopting the intervention in the first place (Rogers, 2003). Individuals' beliefs in their own capabilities to engage in evidence-based practice are also relevant (Bandura, 1977), as are their readiness and receptivity to use the intervention—their stage of change (Prochaska & Velicer, 1997). Finally, the way in which individuals perceive the organization and their relationship and degree of commitment to that organization may affect their willingness to fully engage in implementation efforts or to use an EBP (Greenberg, 1990). Broader personal attributes such as intelligence, motivation, and competence also play a role (Frambach & Schillewaert, 2001).

We cannot pay attention to individual competencies in the absence of developing the learning capacities of our provider organizations or attending to the multitude of factors that play a role in EBP implementation and use. According to Hoge et al. (2005, pp. 522):

> What truly matters is the performance of employees, rather than the "possession" of competencies in some abstract sense. ... Managers (and funders) striving to increase the effectiveness of their workforce must attend to both the competency of their employees and the characteristics of the organization where the employees function.

Conclusions

Many areas of knowledge, skill, and competency are viewed as necessary for effectiveness on the job, and most of these appear to be learned on the job. Few areas of knowledge, skill, and competency are reported as having been acquired in academic programs. For the most part, master's trained clinicians are launching into the workforce with much yet to learn.

Preparation of the workforce for evidence-based practice falls largely on the shoulders of behavioral healthcare provider organizations that, due to cost and competing clinical service needs, have varying capacities to fulfill the level of the on-the-job workforce preparation that is needed. Gaps in competencies between the academic and practice worlds largely mirror the competencies perceived to be of greatest important for effectiveness on the job:

- General EBP knowledge;
- Real-world experience;
- The ability to apply theory in practice; and
- General failures of the educational system in preparing the workforce.

There is some dialogue occurring between provider organizations and institutions of higher learning, but it is minimal. Most contacts are related to teaching or practicum logistics, and attempts to advocate for changes in curriculum are barely noticed in most instances.

Overall, it is telling to note that fewer than 3% of the new master's clinician workforce are perceived to be "very prepared" for clinical practice in child and youth behavioral healthcare. Although this number provides a baseline for the field, it also indicates the magnitude of growth needed in order to get to our destination—an EBP environment supported by a highly competent workforce.

Recommendations

Several recommendations emerge from this research and the body of work in this area.

Service Provider Organizations and Purveyors of EBPs. Service provider organizations and purveyors of EBPs are encouraged to identify gold-standard models of EBP professional development and implementation to replicate across organizations. These models should be based on the best available evidence from implementation science. They might also engage with IHLs to discuss and explore common needs and develop competencies

in collaboration with other groups (e.g., care recipients, experts). Provider organizations would do well to take steps to incorporate the characteristics of learning organizations and to build organizational cultures that encourage evidence-based practice.

Institutions of Higher Learning. For their part, IHLs could work to identify gold-standard EBP teaching models to replicate across IHLs and to stimulate curriculum renewal. They would benefit from seeking out service provider organizations and practicum sites to discuss and explore common needs and to develop competencies in collaboration with other groups (e.g., care recipients, experts).

Accreditation Bodies. Accreditation bodies also have a role to play in shaping the future of the behavioral healthcare workforce by partnering with institutions of higher learning, service provider organizations, and other stakeholders to define core competencies and to ensure that they are embedded in accreditation standards (e.g., APA, CSWE) for university programs in behavioral healthcare. In this way, accreditation bodies would serve as important drivers for change and may be one of the few drivers that could propel IHLs toward curriculum renewal. Accreditation bodies might also play a role in developing and meting out incentives for EBP-focused curricula, which could be mirrored by incentives for excellent EBP service delivery and implementation and innovation by the service provider sector.

Additional Research. Finally, additional research is needed to replicate the competencies identified to date and to identify clinician competencies and client outcomes for practitioners associated with exemplary, gold-standard programs. As research on the core constructs associated with EBP use and implementation evolves, there needs to be continued attention to the broader characteristics of organizational learning and change within mental health systems.

References

Alexander, J.F., & Parsons, B.V. (1982). *Functional Family Therapy: Principles and Procedures.* Carmel, CA: Brooks/Cole.

Annapolis Coalition on the Behavioral Health Workforce (2007). *An Action Plan for Behavioral Health Workforce Development*. SAMHSA, U.S. Department of Health and Human Services.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychology Review, 84,* 191–215.

Barwick , M.A. , Boydell K.M., Stasiulis E., Ferguson H.B., Blase, K., & Fixsen, D. (2008). Research utilization among children's mental health providers. *Implementation Science, 3,* 19.

Chorpita, B.F., Daleiden, E.L., & Weisz, J.R. (2005). Identifying and selecting the common elements of evidence based interventions: A distillation and matching model. *Mental Health Services Research, 7(1),* 5–20.

Cohen, J.A., Mannarino, A.P., & Deblinger, E. (2006). *Treating Trauma and Traumatic Grief in Children and Adolescents*. New York: Guilford.

Crits-Christoph, P., Frank, E., Chambless, D.L., Brody, C., & Karp, J.F. (1995). Training in empirically validated treatments: What are clinical psychology students learning? *Professional Psychology: Research and Practice, 26*, 514–522.

Damschroder, L.J., Aron, D.C., Keith, R.E., Kirsh, S.R., Alexander, J.A., & Lowery, J.C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation. *Implementation Science, 4,* 50.

Easterly, L. (2009). An educational model for workforce development: Dissemination of evidence-based practices. *Community Mental Health Journal, 45,* 199–208.

Eyberg, S.M. (1988). Parent-child interaction therapy: Integration of traditional and behavioral concerns. *Child & Family Behavior Therapy, 10*, 33–46.

Frambach, R.T., & Schillewaert, N. (2001). Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research. *Journal of Business Research, 55,* 163–176.

Greenberg J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management, 16,* 399–432.

Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *Milbank Quarterly*, *82(4)*, 581–629.

Grimshaw, J.M., Shirran, L., Thomas, R., Mowatt, G., Fraser, C., Bero, L., Grilli, R., Harvey, E., Oxman, A., & O'Brien, M.A. (2001). Changing provider behavior: An overview of systematic reviews of interventions. *Medical Care, 39(8, Suppl. 2),* 11.2–11.35.

Gustafson, D.H., Sainfort, F., Eichler, M., Adams, L., Bisognano, M., & Steudel, H. (2003). Developing and testing a model to predict outcomes of organizational change. *Health Services Research, 38,* 751–776.

Henggeler, S.W., Mihalic, S.F., Rone, L., Thomas, C., & Timmons-Mitchell, J. (1998). *Blueprints for Violence Prevention, Book Six: Multisystemic Therapy.* Boulder, CO: Center for the Study and Prevention of Violence.

Hoge, M.A. (2002). The training gap: An acute crisis in behavioral health education. *Administration and Policy in Mental Health, 29(4/5),* 305–317.

Hoge, M.A., Leighton, Y.H., & O'Connell, M.J. (2004). Best practices in behavioral health workforce education and training. *Administration and Policy in Mental Health, 32(2),* 91–106.

Hoge, M.A., & Morris, J.A. (2004). Guest editors' introduction: Implementing best practices in behavioral health workforce education—building a changing agenda. *Administration and Policy in Mental Health, 32(2),* 85–89.

Hoge, M.A., Morris, J.A., Daniels, A.S., Huey, L.Y., Stuart, G.W., Adams, N., Paris, M., Goplerud, E., Horgan, C.M., Kaplan, L., Storti, S.A., & Dodge, J.M. (2005). Report of recommendations: The Annapolis Coalition Conference on Behavioral Healthcare Workforce Competencies. *Administration and Policy in Mental Health, 32(5/6),* 651–663.

Hoge, M.A., Tondora, J., & Marrelli, A.F. (2005). The fundamentals of workforce competency: Implications for behavioral health. *Administration and Policy in Mental Health, 32(5/6),* 509–531.

Ishisaka, H.A., Sohng, S.L., Farwell, N., & Uehara, E.S. (2004). Partnership for integrated community-based learning: A social work community-campus collaboration. *Journal of Social Work Education, 40(2),* 321–336.

Institute of Medicine (2000). *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press.

Institute of Medicine (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press.

Institute of Medicine (2003). *Health Professions Education: A Bridge to Quality*. Washington, DC: National Academy Press.

Lam, D. (2004). Field education in social work problem-based learning: An integration of theory and field. *Journal of Social Work Education, 40(3),* 371–389.

Lehman, A.F., Steinwachs, D.M., Dixon, L.B., Postrado, L., & Scott, J.E. (1998). Patterns of usual care for schizophrenia: Initial results of the Schizophrenia Patient Outcomes Research Team (PORT) Client Survey. *Schizophrenia Bulletin, 24(1),* 11–23.

President's New Freedom Commission on Mental Health. (2003). *Achieving the Promise: Transforming Mental Health Care in America. Final Report*. DHHS Pub. No. SMA-03-3832. Rockville, MD: U.S. Department of Health and Human Services.

Prochaska, J.O., & Velicer, W.F. (1997).The transtheoretical model of health behavior change. *American Journal of Health Promotion*, *12,* 38–48.

Rogers, E.M. (2003). *Diffusion of Innovations* (5th ed.). New York: Free Press.

Rycroft-Malone, J., Harvey, G., Kitson, A., McCormack, B., Seers, K., & Titchen, A. (2002). Getting evidence into practice: Ingredients for change. *Nurs Stand, 16,* 38–43.

Schoenwald, S.K., Hoagwood, K.E., Atkins, M.S., Evans, M.E., & Ringeisen, H. (2010). Workforce development and the organization or work: The science we need. *Administration and Policy in Mental Health, 37,* 71–80.

Smyth, N.J., Wright, B., & Williams, R. (2004). *New Directions in Social Work Education: Evidence-Based Practice in Mental Health Course and Field Placements*. Albany, NY: New York State Office of Mental Health.

Weissman, M.M., & Sanderson, W.C. (2002). Promises and problems in modern psychotherapy: The need for increased training in evidence-based treatments. In M. Hager (Ed.). *Modern Psychiatry: Challenges in Educating Health Professionals to Meet New Needs* (pp. 132–165). New York: Josiah Macy Jr. Foundation.

Weissman, M.M., Verdeli, H., Gameroff, M.J., Bledsoe, S.E., Betts, K., Mufson, L., Fitterling, H., & Wickramaratne, P. (2006). National survey of psychotherapy training in psychiatry, psychology, and social work. *Archives of General Psychiatry, 63,* 925–934.

Yager, J., Zarin, D.A., Pincus, H.A., & McIntyre, J.S. (1997). Practice guidelines and psychiatric education: Potential implications. *Academic Psychiatry, 21,* 226–233. ■

An Examination of Bipolar Disorder in Children

by Samuel J. Maddox and Terry G. Lee*

Introduction

There has been considerable controversy about the diagnosis of bipolar disorder in persons under the age of 18, especially in preadolescents (NIMH, 2001). Regardless of whether the diagnosis of pre-pubertal children is appropriate or not, there is general agreement that youth diagnosed with bipolar disorder present with concerning behaviors and psychiatric symptoms. Although symptoms resembling mania and depression in children have been reported in case descriptions since the 1800s (Greenspan et al., 2007), the past 15 years have seen a dramatic increase in the rate of diagnosis of pediatric bipolar disorder (PBD; Blader & Carlson, 2007; Moreno et al., 2007). This increase in diagnosis has been met with controversy. Some have argued that it may be a rectification of a diagnostic system in which youth with bipolar disorder have been previously improperly diagnosed, whereas others have argued that the increase represents a misdiagnosis of children with other disorders or conditions (Biederman et al., 2004; Chang et al., 2010; Duffy, 2007; Frances, 2010; Greenspan et al., 2007; Harrington & Myatt, 2003; Krasa & Tolbert, 1994; Levin 2010).

In one study, PBD was estimated to affect only 1% to 1.5% of children in the general adolescent population (Lewinsohn et al., 1995), yet children diagnosed with bipolar spectrum disorders make up between 17% and 30% of children in various psychiatric settings (Youngstrom et al., 2005). Given the increased rate of the diagnosis of bipolar disorder in children and adolescents, a better understanding of the research regarding this group is warranted. The purpose of this article is to examine the clinical presentation of youth diagnosed with bipolar disorder, to consider issues that arise with the diagnosis in youth, and to discuss current and future directions of the phenomenon of bipolar disorder in children.

*Samuel J. Maddox, Ph.D., is an assistant professor in the Department of Psychology at Clayton State University, Morrow, GA. Terry G. Lee, M.D., is a child and adolescent psychiatrist and assistant professor in the Division of Public Behavioral Health and Justice Policy, Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle. Correspondence concerning this article should be addressed to Samuel J Maddox, Department of Psychology, Clayton State University, 2000 Clayton State Blvd. Laboratory Annex Bldg, Room LAB 116F, Morrow, GA 30260; email: samuelmaddox@clayton.edu.

Clinical Presentation of Bipolar Disorder in Youth

Much of the controversy regarding bipolar disorder in children arises from the criteria specified in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; APA, 2000). Bipolar disorder is characterized by the presence of discrete episodes of mania, hypomania, or major depressive episodes that cause significant distress or impairment. The manic episode is referred to as an "abnormally and persistently elevated, expansive, or irritable mood, lasting one week" (APA, 2000). In the course of the manic mood disturbance, three or more symptoms must be present:

- Inflated self-esteem or grandiosity;
- Decreased need for sleep;
- Being more talkative than usual or exhibiting pressure to keep talking (hyperverbosity);
- Flight of ideas or subjective experience that thoughts are racing;
- Distractibility;
- Increased goal-directed activity or psychomotor agitation; and
- Excessive involvement in pleasurable activity with high potential for painful consequences.

Hypomania is milder in intensity than mania, and has a duration criterion of four days, rather than seven.

During the recent increase in diagnosis, youth diagnosed with bipolar disorder have presented with mixed mania and depression, rather than with discrete episodes of mania and depression, and average age of onset of symptoms has been between five and seven years of age (Geller et al., 2000; Wagner 2004; Wozniak et al., 1995). High rates of psychiatric comorbidity, especially with attention deficit hyperactivity disorder (ADHD), have also been reported; along with poor psychosocial functioning.

Despite the controversy over the appropriateness of the diagnosis of bipolar disorder in youth, there has been a consistent labeling of youth with the disorder. In general, when the diagnosis of bipolar disorder is given to youth, it is often based on symptoms of irritability, sleep disturbances, concentration difficulties, hyperactivity/impulsivity, emotional outbursts and aggression, nightmares, increased energy, and grandiosity (Scheffer & Apps, 2004; Weller et al., 1995). These symptoms are viewed as the primary manifestations of a manic episode in persons under the age of 18. In contrast to adults with bipolar disorder, however, the criterion of a manic episode lasting for a period of one week is usually not met with youth. Although hypomania deviates from this duration criterion and can be as short as four days (APA, 2000), it is commonly stated that in children, both manic and hypomanic episodes can exist for much shorter periods, such as a day or a few hours (AACAP, 2007; Findling et al., 2001). Specifiers of ultra-rapid cycling (five to 364 episodes per year) and ultradian cycling (365+ episodes per year) have been used to define children's shift between mood episodes (Geller et al., 2000).

Taking all these altogether, PBD can present an entirely different picture from its adult counterpart. Youth affected with PBD tend to display milder symptoms of mania evidenced by increased sleep disturbances, irritability, aggression, hostility, emotional outbursts, hyperactivity, and grandiose thoughts. These periods co-occur in cycles with episodes of depressed mood and an infrequent and relatively brief period of normal mood. These youth tend to cycle through the mood states in an ultra-rapid fashion, in which the mood can last from only a few hours to a few days (AACAP, 2007; Findling et al., 2001; Geller & Luby, 1997; Geller et al., 2000; Scheffer & Apps, 2004; Weller et al., 1995).

Given that the clinical presentation of PBD can be different from adult bipolar disorder, the question arises whether the

diagnosis in youth is appropriate. There are several lines of reasoning in support of its appropriateness for youth.

First, in studies of adults with bipolar disorder, a notable percentage recalled onset of bipolar symptoms in childhood, such as in the Systematic Treatment Enhancement Program for Bipolar Disorder study in which 28% reported a history of onset of bipolar symptoms before the age of 13 years (Perlis et al., 2004), and in the National Depressive and Manic-Depressive Association survey in which 5% of members reported onset of symptoms before the age of five years, 12% reported onset between five and nine years, and 14% reported onset between 10 and 14 years (Lish et al., 1994).

Second, prospective studies of youth diagnosed with bipolar disorder through the use of structured instruments show continuity of symptoms over time (Birmaher et al., 2009; Geller et al., 2008).

Finally, adult bipolar disorder may be just as variable given that meaningful numbers of adults diagnosed with bipolar disorder do not meet the criteria for "classic" DSM-IV bipolar disorder (Angst et al., 2003; Ghaemi et al., 2002), and subpopulations of adults with mixed or cycling symptoms and poor symptom control have been described (Keller al., 1993). Therefore, continued research into the conceptualization of the disorder is warranted. However, the large numbers of youth diagnosed with bipolar disorder who do not meet DSM-IV criteria for the disorder create confusion in the research literature. This paper will refer to the mood disorder characterized by discrete episodes of mania and depression with return to baseline as "classic" bipolar disorder and will describe the disorder that is characterized by mixed mania and depression or rapid cycling as PBD.

Controversies About Bipolar Disorder in Youth

Overlap With Other Common Childhood Disorders. Although the clinical presentation of PBD often leads to problems with connecting it to the adult form of the disorder, the pediatric version also creates difficulties in differential diagnosis. Symptoms that often lead to a diagnosis of PBD also have significant overlap with a variety of other disorders in children such as ADHD, posttraumatic stress disorder (PTSD), and oppositional defiant disorder/conduct disorder (ODD/CD). Given that there is a high level of comorbidity (Faedda & Austin, 2006; Lewinsohn et al., 2003), it is extremely difficult to identify where the comorbid disorder ends and PBD begins. For example, PBD and PTSD can both have symptoms of nightmares, hyperarousal, sleep disturbances, and distractibility. Also, given the variety of risk factors often present with PBD, such as a family history of mood disorders and the child's difficult behavior, it is possible that these children may be at risk for experiencing trauma or may have experienced past trauma (Adrian & Hammen, 1993; Anderson & Hammen, 1993; Dilsaver et al., 2007; Hammen et al., 1990). Considering ADHD, the symptoms of distractibility, impulsivity, and hyperactivity are common to both (Faedda & Austin, 2006; Geller et al., 1998; Health Care for the Homeless Clinicians' Network, 2006). More research on differential diagnosis relevant to PBD is needed to determine if PBD is being misdiagnosed and whether there may be more appropriate diagnoses for children.

Given that there is a high level of comorbidity, it is extremely difficult to identify where the comorbid disorder ends and PBD begins.

Rates of PBD in Other Countries. While the rate of diagnosis of youth bipolar disorder has increased rapidly in the United States, this has not been the trend in other countries. In their review, Soutullo et al. (2005) noted that in a large epidemiological study in the United Kingdom, no cases of pre-adolescent mania were found, and there were also no cases of mania found in youth under the age of 10 years in 2,500 hospital-referred youth in the United Kingdom. Relative to rates in the United States, rates of PBD are low in Denmark, Finland, Holland, Ireland, and Spain (Soutullo et al., 2005). Similarly, rates of pre-adolescent bipolar disorder in Australia, Brazil, China, India, Israel, Japan, New Zealand, Russia, and Turkey have been reported to be nonexistent or very low (Diler, 2007). Various explanations for the discrepancy include:

- Differences in classification systems (DSM-IV vs. ICD-10);
- Differences in the developmental versus child behavioral health as a field;
- Underrecognition of PBD outside of the United States;
- Overdiagnosis in the United States; and
- A true higher prevalence of PBD in the United States (Soutullo et al., 2005).

Regarding this last hypothesis, the higher use of psychiatric medications in pre-adolescents in the United States has been proposed as a potential factor (Reichart & Nolen, 2004).

Longitudinal Outcomes of Youth Diagnosed With PBD. Whether youth diagnosed with bipolar disorder grow up to present clinically as adults with bipolar disorder is also a critical question in the PBD controversy. In Duffy's (2007) review of three prospective longitudinal studies of high-risk children of parents with well-characterized bipolar disorder (Duffy et al., 2002; Hillegers et al., 2005; Shaw et al., 2005), it was noted that no offspring in these high-risk groups met criteria for bipolar disorder, hypomania, or mania before the age of 12 years and there were no reports of chronic irritability, aggression, or continuous cycling. The lack of early onset bipolar symptoms in these three high-risk groups does not, however, preclude the possibility of alternative pathways to adult bipolar disorder.

In further examining the Geller et al. (2008) report of continued bipolar symptoms at eight-year follow-up, just after the age of 18, it was found that 44% of youth diagnosed with bipolar disorder with the Washington University Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS-BP) instrument had a manic episode using the same instrument. The majority of subjects who were classified as being manic exhibited the ultradian cycling type of bipolar disorder. In the Birmaher et al. (2009) prospective study, youth who were diagnosed with a bipolar spectrum disorder continued to exhibit mood symptoms during four-year follow-up. However, mood symptoms tended to be depression and mixed symptoms; classic mania was rare (Birmaher et al., 2009). In further considering the Geller and Birmaher studies, which reported continued symptoms as support for the validity of a diagnosis of

PBD, it should be noted that youth in both of these studies continued to exhibit irritable or mixed mood symptoms consistent with the symptoms that led to the initial bipolar diagnosis, but they did not develop classic mania symptoms. Youth in both of these studies experienced poor psychosocial functioning during follow-up.

The "Severe Mood Disorder" Definition. Other prospective or quasi-prospective studies make use of Leibenluft and colleagues' (2003) "severe mood disorder" (SMD) definition. In considering PBD, a group of roundtable discussants proposed a range of phenotypes of juvenile mania (NIMH, 2001). The narrow phenotype is characterized by youth who meet full DSM-IV criteria for bipolar disorder, including discrete episodes of hypomania or mania and depression, and the "broad phenotype" is characterized by chronic, nonepisodic irritability and hyperarousal, without discrete episodes of mania or depression. SMD was proposed by Leibenluft et al. (2003) for the "broad" phenotype, because the relationship between the "broad" phenotype and bipolar disorder is not clear.

In applying a modified set of SMD criteria retrospectively to a group of youth in an ongoing prospective epidemiological study, it was found that only one of 96 youth with chronic nonepisodic irritability developed bipolar II at follow-up around 18 years of age (Brotman et al., 2006). In following a group of youth initially identified with SMD and narrowly defined bipolar disorder over two years, only one of 84 youth with SMD experienced a hypomanic episode, while 58 of 94 youth initially diagnosed with bipolar disorder exhibited hypomania or mania during the follow-up period. In an epidemiological study of mood disorders, a group of high school youth with subsyndromal bipolar disorder were identified (Lewinsohn et al., 2000). At follow-up at age 24 years, compared to a group of controls, the youth initially identified with subsyndromal bipolar disorder had elevated rates of depression, anxiety, and antisocial and borderline personality traits, but not bipolar disorder. Significant impairment of psychosocial functioning was reported in youth with subsyndromal bipolar disorder.

Response to Medication. Another approach to classification can be based on medication response. This approach can be problematic because youth with mood disorders have high placebo response rates, sometimes greater than 50%, at least in the short term (Bridge et al., 2009; DelBello et al., 2002; Hughes et al., 1990). Moreover, medications tend to have nonspecific effects and to treat symptoms, not disorders (Harrington & Myatt, 2003); sedation effects must also be considered. At the same time, diagnosing youth with bipolar disorder may be confusing if they do not respond similarly to adults with bipolar disorder.

Although lithium and divalproex are established treatments for adult bipolar disorder, research has demonstrated that these agents fail to be effective in treating PBD.

Lithium and divalproex are established treatments for adult bipolar disorder (Gelenberg & Hopkins, 1993); however, research has demonstrated that these agents fail to be effective in treating PBD. Wagner et al. (2009) reported that divalproex was no better than placebo for youth with PBD on primary and secondary measures, and there was little clinically significant benefit to divalproex over a six-month open trial. Kafantaris et al. (2004), studying youth who responded to initial lithium treatment, found there were no significant differences in subsequent symptoms between youth who were randomly assigned to continue lithium treatment or receive a placebo. Other studies have found similar results with medications such as oxcarbazepine, which was also not found to be superior to placebo (Wagner et al., 2006). Although several atypical antipsychotics have received FDA approval for the treatment of bipolar disorder in youth, controlled long-term studies are limited. As discussed above, some of the effects of antipsychotics in this population may be nonspecific.

Psychosocial Interventions. Psychosocial interventions for PBD are in the early stages of development and testing. These include child- and family-focused cognitive-behavioral therapy (CFF-CBT; Pavuluri et al., 2004), group child and family-focused cognitive-behavioral therapy (West et al., 2009) multi-family psychoeducation groups (MFPG; Fristad et al., 2002) and family-focused therapy (FFT: Miklowitz et al., 2008), all of which have demonstrated moderate success. In general, these interventions help to connect youth to social support systems by repairing family dynamics and fostering interaction with similar others. These interventions also provide educational information that helps reduce the stigma associated with diagnoses of bipolar disorder, normalize the experience of mood dysfunction for the child, and provide guidance on the importance of treatment adherence. Although promising for youth with bipolar patterns, these interventions do not provide confirmation that a diagnosis of PBD is accurate, given that these strategies can be effective for children with behavioral dysregulation in general.

In summary, there are many controversies regarding PBD. Regardless of the label, children and adolescents diagnosed with PBD present with a number of behavioral health challenges and poor psychosocial functioning. There is little or no evidence, however, to generalize what is known about "classic" bipolar disorder to PBD. To summarize the information provided above:

- Research shows that youth with chronic nonepisodic irritability do not grow up to have "classic" bipolar disorder.
- The increased rate of PBD has not occurred in countries outside of North America.
- Mood stabilizer medications, which are effective for "classic" bipolar disorder, have not been shown to be more effective than placebo for youth diagnosed with PBD.
- Psychosocial interventions being developed for PBD tend to be based on general psychoeducation and skills training for disruptive behavior and emotional lability, rather than being symptom-specific to "classic" bipolar disorder.

For youth with emotional and behavioral dysregulation, more research is needed. A common language and classification system is also necessary to facilitate research and clinical decision making.

Current Directions

Although studies have shown that symptoms of bipolar disorder in children exist, there is still concern regarding the current

nosology of the DSM-IV (AACAP, 2007). Because PBD may vary from the adult disorder, it is recommended that youth who do not fully meet criteria receive the diagnosis of bipolar disorder not otherwise specified (BDNOS; AACAP, 2007). As described above, however, there is growing evidence that youth with chronic nonepisodic irritability do not grow up to have "classic" bipolar disorder (Leibenluft, 2011; Parens et al., 2010). There has thus been a concerted effort on the part of the childhood disorders work group responsible for updating the DSM to the fifth edition (DSM-V) to rectify this problem and provide more diagnostic clarity (DSM-5 Child & Adolescent Work Group, 2010). The DSM-5 Childhood and Adolescent Disorders and Mood Disorders Work Group (2010) has proposed three changes to DSM-V.

Language Clarification. First, language would be revised to clarify the operational definition of what constitutes a manic or hypomanic episode;

- The A criterion (for mania) would be modified to include: "a distinct period of abnormally and persistently elevated, expansive, or irritable mood, lasting at least 1 week (or any duration if hospitalization is necessary) *and present most of the day, nearly every day*" (addition italicized);
- The B criterion would be modified to read: "During the period of mood disturbance, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree *and represent a noticeable change from usual behavior*" (addition italicized).

New Mood Disorder Diagnosis. Second, to address concerns by some that youth with chronic nonepisodic irritability do not have a "diagnostic home" (Chang et al., 2010), and that this lack has contributed to the increase in the diagnosis of PBD, a new mood disorder diagnosis has been proposed: "Temper Dysregulation Disorder with Dysphoria" (TDD; DSM-5 Child & Adolescent Work Group, 2010). The current criteria for TDD are inspired by the earlier work of Leibenluft et al., (2003) in which they identified the phenotypes of what was conceptualized as a bipolar spectrum in youth. The development of this phenotype helped to classify children who displayed mood disturbance but not classic bipolar disorder.

Although SMD offered promise, the creation of TDD was proposed by the childhood disorders work group to further improve the diagnostic ability of the DSM-V. The specific criteria proposed for TDD include severe recurrent temper outbursts in response to common stressors. These outbursts occur three or more times per week on average with persistent negative mood existing between outbursts. The onset of the disorder must occur before age 10 but cannot be diagnosed prior to age six. Additional criteria specify that the duration of the disorder must exist for at least a year and cause impairments in multiple settings. Exclusion of classic manic symptoms is also required. TDD also cannot be better accounted for by another mental disorder or medical condition (DSM-5 Child & Adolescent Work Group, 2010).

The proposed creation of TDD has brought mixed reactions. Adding TDD as a diagnosis may reconcile much of the controversy with PBD. Specifically, by modifying duration and episodic criteria, youth who either have to be liberally diagnosed with bipolar disorder or assigned a BDNOS designation now have a more appropriate diagnostic category. In addition, recognition of this new diagnostic category will offer further opportunities for research into etiology and treatment options, given that the heterogeneity of the original PBD category has been reduced. Concerns have been raised about whether there is sufficient research of TDD to validate it as a diagnosis. Currently, there is limited information regarding the phenomenology, prevalence, course, and treatment.

Further Study of Short-Term Hypomanic Episodes. Identification of the third proposal by the DSM-5 Work Group involves identifying and studying hypomanic episodes of fewer than four days' duration. The specifics of this recommendation have not been fully formulated.

Other proposed constructs include a suggestion by Carlson to add a modifier such as "explosive anger" for DSM diagnoses such as ADHD (Chang et al., 2010). Meanwhile, the construct of "impulsive aggression" across diagnostic categories has also been suggested (Jensen et al., 2004).

Goals for the Future

With the impending revision of the DSM becoming a reality, research on bipolar patterns in youth is ripe for expansion. The need for ecologically based, epidemiological research to determine the incidence and prevalence rates of these disorders, evaluate the appropriateness of the new diagnostic categories, identify risk and protective factors that contribute to the development of TDD versus pediatric or classic bipolar disorder, and study the effects of mediators and moderators on treatment outcomes will be crucial in the upcoming decade. In addition, rapid dissemination of the research to practitioners, parents, and various other professionals who serve youth will be necessary to ensure that the treatment of these youth remains in accordance with evolving standards of care.

A mechanism may soon exist, with the pending release of the DSM-V, through which dysregulated mood in youth can be acknowledged and evaluated with more empirical scrutiny.

The persistence of labeling persons under the age of 18 with bipolar disorder, although it has engendered controversy, has not been done out of mal intent but has, rather, represented an effort to classify a phenomenon that has been recognized in clinical, school, and child care settings for many decades. Although the appropriateness of the current practice is controversial, a mechanism may soon exist, with the pending release of the DSM-V, through which dysregulated mood in youth can be acknowledged and evaluated with more empirical scrutiny.

References

Adrian, C., & Hammen, C.L. (1993). Stress exposure and stress generation in children of depressed mothers. *Journal of Consulting and Clinical Psychology, 61(2),* 354–359.

American Academy of Child and Adolescent Psychiatry (AACAP; 2007). Practice parameter for the assessment and treatment of children and adolescents with bipolar disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 46(1),* 107–125.

American Psychiatric Association (APA, 2000). *Diagnostic and Statistical Manual of Mental Disorders: DSM-IV-TR* (4th ed., text rev.). Washington, DC: Author.

Anderson, C.A., & Hammen, C.L. (1993). Psychosocial outcomes of children of unipolar depressed, bipolar, medically ill, and normal women: A longitudinal study. *Journal of Consulting and Clinical Psychology, 61(3),* 448–454.

Angst, J., Gamma, A., Sellaro, R., Lavori, P.W., & Heping, Z. (2003). Recurrence of bipolar disorders and major depression A life-long perspective. *European Archives of Psychiatry & Clinical Neuroscience, 253(5),* 236–240.

Biederman, J., Faraone, S.V., Wozniak, J., Mick, E., Kwon, A., & Aleardi, M. (2004). Further evidence of unique developmental phenotypic correlates of pediatric bipolar disorder: Findings from a large sample of clinically referred preadolescent children assessed over the last 7 years. *Journal of Affective Disorders, 82(Suppl 1),* S45–S58.

Birmaher, B., Axelson, D., Goldstein, B., Strober, M., Gill, M., Hunt, J., Houck, P., Ha, W., Iyengar, S., Kim, E., Yen, S., Hower, H., Esposito-Smythers, C., Goldstein, T., Ryan, N., & Keller, M. (2009). Four-year longitudinal course of children and adolescents with bipolar spectrum disorders: The Course and Outcome of Bipolar Youth (COBY) Study. *The American Journal of Psychiatry, 166(7),* 795–804.

Blader, J.C., & Carlson, G.A. (2007). Increased rates of bipolar disorder diagnoses among U.S. child, adolescent, and adult inpatients, 1996–2004. *Biological Psychiatry, 62(2),* 107–114.

Bridge, J.A., Birmaher, B., Iyengar, S., Barbe, R.P., & Brent, D.A. (2009). Placebo response in randomized controlled trials of antidepressants for pediatric major depressive disorder. *The American Journal of Psychiatry, 166(1),* 42–49.

Brotman, M.A., Schmajuk, M., Rich, B.A., Dickstein, D.P., Guyer, A.E., Costello, E., Egger, H., Angold, A., Pine, D.S., & Leibenluft, E. (2006). Prevalence, clinical correlates, and longitudinal course of severe mood dysregulation in children. *Biological Psychiatry, 60(9),* 991–997.

Chang, K., Carlson, G., Strakowski, S.M. (2010, May 10). Is bipolar disorder overdiagnosed in children and adolescents: A virtual debate. [Online Debate]. Available at *http://www.medscape.com/viewarticle/727955*.

DelBello, M.P., Schwiers, M.L., Rosenberg, H., & Strakowski, S.M. (2002). A double, randomized, placebo-controlled study of quetiapine adjunctive treatment for adolescent mania. *Journal of the American Academy of Child & Adolescent Psychiatry, 41(10),* 1216–1223.

Diler, R., Uguz, S., Saydaoglu, G., Erol, N., & Avci, A. (2007). Differentiating bipolar disorder in Turkish prepubertal children with attention-deficit hyperactivity disorder. *Bipolar Disorders, 9(3),* 243–251.

Dilsaver, S.C., Benazzi, F., Akiskal, H.S., & Akiskal, K.K. (2007). Post-traumatic stress disorder among adolescents with bipolar disorder and its relationship to suicidality. *Bipolar Disorders, 9(6),* 649–655.

DSM-5 Child & Adolescent Work Group (2010). *Justification for Temper Dysregulation Disorder with Dysphoria.* Washington, DC: American Psychiatric Association. Available at *http://www.dsm5.org/Proposed%20Revision%20Attachments/Justification%20for%20Temper%20Dysregulation%20Disorder%20with%20Dysphoria.pdf*.

Duffy, A. (2007). Does bipolar disorder exist in children? A selected review. *The Canadian Journal of Psychiatry, 52(7),* 409–417.

Duffy, A., Alda, M., Kutcher, S., Cavazzoni, P., Robertson, C., Grof, E., & Grof, P. (2002). A prospective study of the offspring of bipolar parents responsive and nonresponsive to lithium treatment. *Journal of Clinical Psychiatry, 63(12),* 1171–1178.

Faedda, G.L., & Austin, N.B. (2006). *Parenting a Bipolar Child: What to Do and Why.* Oakland, CA: New Harbinger.

Findling, R.L., Gracious, B.L., McNamara, N.K., Youngstrom, E.A., Demeter, C.A., Branicky, L.A., & Calabrese, J.R. (2001). Rapid, continuous cycling and psychiatric co-morbidity in pediatric bipolar I disorder. *Bipolar Disorders, 3(4),* 202–210.

Frances, A. (2010, April 8) Psychiatric diagnosis gone wild: The "epidemic" of childhood bipolar disorder. *Psychiatric Times*. Available at *http://www.psychiatrictimes.com/display/article/10168/1551005*.

Fristad, M.A., Goldberg-Arnold, J.S., & Gavazzi, S.M. (2002). Multifamily psychoeducation groups (MFPG) for families of children with bipolar disorder. *Bipolar Disorders, 4(4),* 254–262.

Gelenberg, A.J, & Hopkins, H.S. (1993). Report on efficacy of treatments for bipolar disorder. *Psychopharmacology Bulletin, 29(4),* 447–456.

Geller, B., & Luby, J. (1997). Child and adolescent bipolar disorder: A review of the past 10 years. *Journal of the American Academy of Child & Adolescent Psychiatry, 36(9),* 1168–1176.

Geller, B., Tillman, R., Bolhofner, K., & Zimerman, B. (2008). Child bipolar I disorder: Prospective continuity with adult bipolar I disorder; characteristics of second and third episodes; predictors of 8-year outcome. *Archives of General Psychiatry, 65(10),* 1125–1133.

Geller, B., Williams, M., Zimerman, B., Frazier, J., Beringer, L., & Warner, K.L. (1998). Prepubertal and early adolescent bipolarity differentiate from ADHD by manic symptoms, grandiose delusions, ultra-rapid or ultradian cycling. *Journal of Affective Disorders, 51(2),* 81–91.

Geller, B., Zimerman, B., Williams, M., Bolhofner, K., Craney, J.L., DelBello, M.P., & Soutullo, C.A. (2000). Diagnostic characteristics of 93 cases of prepubertal and early adolescent bipolar disorder phenotype by gender, puberty and comorbid attention deficit hyperactivity disorder. *Journal of Child and Adolescent Psychopharmacology, 10(3),* 157–164

Ghaemi, S., Ko, J.Y., & Katzow, J.J. (2002). Oxcarbazepine treatment of refractory bipolar disorder: A retrospective chart review. *Bipolar Disorders, 4(1),* 70–74.

Greenspan, S.I., Golvinsky, I., & Glovinsky C. (2007). *Children and Babies with Mood Swings: New Insights for Parents and Professionals*. Bethesda, MD: Interdisciplinary Council on Developmental and Learning Disorders.

Hammen, C., Burge, D., & Stansbury, K. (1990). Relationship of mother and child variables to child outcomes in a high-risk sample: A causal modeling analysis. *Developmental Psychology, 26(1),* 24–30.

Harrington, R., & Myatt, T. (2003). Is preadolescent mania the same condition as adult mania? A British perspective. *Biological Psychiatry, 53(11),* 961–969.

Health Care for the Homeless Clinicians' Network (2006). Which is it: ADHD, bipolar disorder, or PTSD? *Healing Hands, 10(3),* 1–6. Available at *http://www.nhchc.org/Network/HealingHands/2006/Aug2006HealingHands.pdf.*

Hillegers, M.J., Reichart, C.G., Wals, M., Verhulst, F.C., Ormel, J., & Nolen, W.A. (2005). Five-year prospective outcome of psychopathology in the adolescent offspring of bipolar parents. *Bipolar Disorders, 7(4),* 344–350.

Hughes, C.W., Preskorn, S.H., Weller, E., Weller, R., Hassanein, R., & Tucker, S. (1990). The effect of concomitant disorders in childhood depression on predicting treatment response. *Psychopharmacology Bulletin, 26(2),* 235–238.

Jensen, P.S., Youngstrom, E.A., Steiner, H., Findling, R.L., Meyer, R.E., Malone, R.P., Carlson, G.A., Coccaro, E.F., Aman, M.G., Blair, J., Dougherty, D., Ferris, C., Flynn, L., Green, E. Hoagwood, K., Hutchinson, J., Laughren, T., Leve, L.D., Novins, D.K., & Vitiello, B. (2007). Consensus report on impulsive aggression as a symptom across diagnostic categories in child psychiatry: Implications for medication studies. *Journal of the American Academy of Child & Adolescent Psychiatry, 46(3),* 309–322.

Kafantaris, V., Coletti, D.J., Dicker, R., Padula, G., Pleak, R.R., Alvir, J.J., & Kane, J.M. (2004). Lithium treatment of acute mania in adolescents: A placebo-controlled discontinuation study. *Journal of the American Academy of Child & Adolescent Psychiatry, 43(8),* 984–993.

Keller, M.B., Lavori, P.W., Coryell, W., & Endicott, J. (1993). Bipolar I: A five-year prospective follow-up. *Journal of Nervous and Mental Disease, 181(4),* 238–245.

Krasa, N.R., & Tolbert, H.A. (1994). Adolescent bipolar disorder: A nine-year experience. *Journal of Affective Disorders, 30(3),* 175–184.

Leibenluft, E. (2011) Severe mood dysregulation, irritability, and the diagnostic boundaries of bipolar disorder in youths. *The American Journal of Psychiatry, 168(2),* 129–142.

Leibenluft, E., Charney, D.S., Towbin, K.E., Bhangoo, R.K., & Pine, D.S. (2003). Defining clinical phenotypes of juvenile mania. *The American Journal of Psychiatry, 160(3),* 430–437.

Levin, A. (2010). Are clinicians too quick to diagnose bipolar illness in children? *Psychiatric News, 45(24),* 26. Available at *http://pn.psychiatryonline.org/content/45/24/26.2.full*.

Lewinsohn, P.M., Clarke, G.N., Seeley, J.R., & Rohde, P. (1995). "Subgroups of adolescent depression": Reply. *Journal of the American Academy of Child & Adolescent Psychiatry, 34(7),* 831–833.

Lewinsohn, P.M., Rohde, P., Seeley, J.R., Klein, D.N., & Gotlib, I.H. (2000). Natural course of adolescent major depressive disorder in a community sample: Predictors of recurrence in young adults. *The American Journal of Psychiatry, 157(10),* 1584–1591.

Lewinsohn, P.M., Seeley, J.R., & Klein, D.N. (2003). Bipolar disorders during adolescence. *Acta Psychiatrica Scandinavica, 108(Suppl 418),* 47–50.

Lish, J.D., Dime-Meenan, S., Whybrow, P.C., Price, R., & Hirschfield, R.M. (1994). The National Depressive and Manic-Depressive Association

(DMDA) survey of bipolar members. *Journal of Affective Disorders, 31(4),* 281–294.

Miklowitz, D.J., Axelson, D.A., Birmaher, B., George, E.L., Taylor, D.O., Schneck, C.D., & Brent, D.A. (2008). Family-focused treatment for adolescents with bipolar disorder: Results of a 2-year randomized trial. *Archives of General Psychiatry, 65(9),* 1053–1061.

Moreno, C., Laje, G., Blanco, C., Jiang, H., Schmidt, A., & Olfson, M. (2007). National trends in the outpatient diagnosis and treatment of bipolar disorder in youth. *Archives of General Psychiatry, 64,* 1032–1039.

National Institute of Mental Health Research Roundtable on Prepubertal Bipolar Disorder (2001). *Journal of the American Academy of Child & Adolescent Psychiatry, 40(8),* 871–878.

Parens, E., & Johnston, J. (2010). Controversies concerning the diagnosis and treatment of bipolar disorder in children. *Child and Adolescent Psychiatry and Mental Health, 4, 9–22*. Available at *http://www.capmh.com/content/4/1/9*.

Pavuluri, M.N., Graczyk, P.A., Henry, D.B., Carbray, J.A., Heidenreich, J., & Miklowitz, D.J. (2004). Child- and family-focused cognitive-behavioral therapy for PBD: Development and preliminary results. *Journal of the American Academy of Child & Adolescent Psychiatry, 43(5),* 528–537.

Perils, R.H., Miyahara, S., Marangell, L.B., Wisniewski, S.R., Ostacher, M., DelBello, M.P., Bowden, C.L., Sachs, G.S., & Nierenberg, A.A. (2004). Long-term implications of early onset in bipolar disorder: Data from the first 1000 participants in the systematic treatment enhancement program for bipolar disorder (STEP-BD). *Biological Psychiatry, 55(9),* 875–881.

Reichart, C.G., & Nolen, W.A. (2004). Earlier onset of bipolar disorder in children by antidepressants or stimulants? An hypothesis. *Journal of Affective Disorders, 78(1),* 81–84.

Scheffer, R.E., & Apps, J. (2004). The diagnosis of preschool bipolar disorder presenting with mania: Open pharmacological treatment. *Journal of Affective Disorders, 82(Suppl 1),* S25–S34.

Shaw, J.A., Egeland, J.A., Endicott, J., Allen, C.R., & Hostetter, A.M. (2005). A 10-year prospective study of prodromal patterns for bipolar disorder among Amish youth. *Journal of the American Academy of Child & Adolescent Psychiatry, 44(11),* 1104–1111.

Soutullo, C.A., Chang, K.D., Díez-Suárez, A., Figueroa-Quintana, A., Escamilla-Canales, I., Rapado-Castro, M., & Ortuño, F. (2005). Bipolar disorder in children and adolescents: International perspective on epidemiology and phenomenology. *Bipolar Disorders, 7(6),* 497–506.

Wagner, K. (2004). Treatment of Childhood and Adolescent Disorders. In A.F. Schatzberg, C.B. Nemeroff, A.F. Schatzberg & C.B. Nemeroff (Eds.). *The American Psychiatric Publishing Textbook of Psychopharmacology* (3rd ed., pp. 949–1007). New York: American Psychoanalytic Association.

Wagner, K., Kowatch, R.A., Emslie, G.J., Findling, R.L., Wilens, T.E., McCague, K., D'Souza, J., Wamil, A., Lehman, R.B., Berv, D., & Linden, D. (2006). A double-blind, randomized, placebo-controlled trial of oxcarbazepine in the treatment of bipolar disorder in children and adolescents. *The American Journal of Psychiatry, 163(7),* 1179–1186.

Wagner, K., Redden, L., Kowatch, R.A., Wilens, T.E., Segal, S., Chang, K., Wozniak, P., Vigna, N., Abi-Saab, W., & Saltarelli, M. (2009). A double-blind, randomized, placebo-controlled trial of divalproex extended-release in the treatment of bipolar disorder in children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 48(5),* 519–532.

Weller, E.B., Weller, R.A., & Fristad, M.A. (1995). Bipolar disorder in children: Misdiagnosis, underdiagnosis, and future directions. *Journal of the American Academy of Child & Adolescent Psychiatry, 34(6),* 709–714.

West, A.E., Jacobs, R.H., Westerholm, R., Lee, A., Carbray, J., Heidenreich, J., & Pavuluri, M.N. (2009). Child and family-focused cognitive-behavioral therapy for pediatric bipolar disorder: Pilot study of group treatment format. *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 18(3),* 239–246.

Wozniak, J., Biederman, J., Kiely, K., Ablon, J, Faraone, S. V., Mundy, E., & Mennin, D. (1995). Mania-like symptoms suggestive of childhood-onset bipolar disorder in clinically referred children. *Journal of the American Academy of Child & Adolescent Psychiatry, 34(7),* 867–876.

Youngstrom, E.A., Duax, J., & Hamilton, J. (2005). Evidence-based assessment of pediatric bipolar disorder, Part I: Base rate and family history. *Journal of the American Academy of Child & Adolescent Psychiatry, 44(7),* 712–717. ■

Child-Parent Psychotherapy: Facilitating Factors and Barriers to Implementation in the National Child Traumatic Stress Network

by Elizabeth Douglas, Bryan Seck, Bhuvana Sukumar, and Christine Walrath*

Introduction

The landmark Adverse Childhood Experiences (ACE) study, one of the largest investigations ever conducted on the links between childhood trauma and later-life health and well-being, found that childhood abuse, neglect, and exposure to other traumatic stressors are common. Almost two-thirds of study participants reported at least one traumatic stressor, and more than one in five reported three or more traumatic stressors before age 18 (Felitti et al., 1998). Very young children—including children aged 0 to 4—are among those affected by trauma exposure. Despite significant efforts aimed at prevention over the past 30 years, child abuse remains the most common type of childhood trauma today, and its impact is pervasive in society (Chadwick, 2004). In 2009, more than 1,600 children ages 0 to 17 died from abuse or neglect; among these, 81% were four years of age or younger (USDHHS, 2011). Many studies have documented the long-term negative effects of a range of different trauma exposures on children (Margolin & Gordis, 2000; Mazza & Reynolds, 2000; Melhem et al., 2004). Child maltreatment, for example, disrupts children's emotional, behavioral, cognitive, and interpersonal functioning and poses severe risks for the development of psychopathology (Cicchetti & Valentino, 2006). These problems may extend from childhood through adolescence and into adulthood (Fairbank, 2008).

In recent years, a number of effective clinical approaches and interventions have been developed and tested for use in treating trauma-exposed children. One such therapy is child-parent psychotherapy (CPP; Lieberman et al., 1997), a relationship-based, dyadic clinical intervention designed to address exposure to trauma, internalizing and externalizing symptoms, and symptoms of traumatic stress among infants, toddlers, and preschoolers who have experienced domestic violence. Although the primary focus is on children who have witnessed domestic violence, the intervention strategies apply to many forms of child maltreatment (Lieberman & Van Horn, 2005). The intervention integrates multiple theories, including psychodynamic, attachment, trauma, cognitive-behavioral, and social-learning, to restore the child-parent relationship and the child's mental health and developmental progression that have been damaged by the experience of domestic violence (Lieberman & Van Horn, 2005). In particular, a fundamental premise is that a dual attachment and trauma lens must be used in the assessment and treatment of infants and toddlers with mental health and relationship problems (Lieberman, 2004).

As part of CPP, child-parent interactions are the focus of six intervention modalities aimed at restoring a sense of mastery, security, and growth, and promoting congruence between bodily sensations, feelings, and thinking on the part of both child and parent and in their relationship with one another (NCTSN, 2011b). The six intervention modalities are:

1. Promoting developmental progress through play, physical contact, and language;
2. Offering unstructured reflective developmental guidance;
3. Modeling appropriate protective behaviors;
4. Interpreting feelings and actions;
5. Providing emotional support and empathetic communication; and
6. Offering crisis intervention, case management, and concrete assistance with problems of living (Lieberman & Van Horn, 2005).

Reflective supervision—a type of supervision designed to help clinicians consider, with the guidance of their supervisor, their thoughts, feelings, actions, and reactions as they work to support the healthy development of very young children and their families (FPG Child Development Institute, 2011)—is also a key component of CPP. Through this mechanism, clinicians and supervisors work to identify barriers to implementation of CPP and to craft a therapeutic plan that best meets a family's individual needs. Reflective supervision combines reflections and case review to learn about and improve the clinical process.

Few interventions are designed to alleviate the effects of exposure to violence in the first five years of life (Lieberman & Van Horn, 2005). However, a number of randomized, controlled trials have demonstrated that CPP or infant-parent psychotherapy (IPP; CPP is an extension of IPP) is effective in reducing symptoms resulting from stressors, including trauma, and improving the parent-child relationship that has been damaged by such stressors (Cicchetti et al., 2006; Lieberman et al., 1991; 2005; 2006; Toth et al., 2002;). In recognition of its effectiveness, the National Child Traumatic Stress Network (NCTSN; discussed in more depth below) classified CPP as a "well supported and efficacious" practice on its list of empirically supported treatments and promising practices (NCTSN, 2011a). The California Evidence-Based Clearinghouse for Child Welfare (CEBC) provided CPP with a scientific rating of 2 ("supported by the research evidence") on a scale of 1 to 5, with 1 being well supported by the research evidence and 5 being a concerning practice (CEBC, 2011).

CPP Dissemination

Despite its effectiveness, CPP is one of many evidence-based practices (EBPs) that have not been widely disseminated in routine clinical practice, a gap that has resulted in a "quality chasm" between what has been identified by researchers and leading practitioners in the field of child traumatic stress as effective and what clinicians working in community mental health centers and other providers actually practice (Chadwick Center for Children and Families, 2004).

In 2001, the Substance Abuse and Mental Health Services Administration (SAMHSA)

*Elizabeth Douglas, M.S., is project manager at ICF Macro, in Atlanta, GA. Bryan Seck, M.P.A., is senior associate at ICF Macro, New York. Bhuvana Sukumar, Ph.D., is project director at ICF Macro, Atlanta, and Christine Walrath, Ph.D., is vice president at ICF Macro, New York. Elizabeth Douglas can be reached by email at eDouglas@icfi.com.

within the U.S. Department of Health and Human Services funded the National Child Traumatic Stress Initiative (NCTSI) to bridge the gap between research and practice in the child trauma field. The NCTSI mission is carried out by the NCTSN (see box; to learn more about the NCTSN, see *www.nctsn.org*), a unique science-to-practice, collaborative network of more than 100 academic and community-based service centers whose mission is to raise the standard of care and increase access to services for traumatized children and their families across the United States. To that end, the centers implement trauma-informed clinical interventions as part of service delivery for trauma-exposed children; collect data for quality improvement, evaluation, and clinical purposes; and facilitate collaboration among child-serving providers and systems. Through such activities, the NCTSN has great potential to expand the limited evidence base on children's experience of trauma and to translate science to practice, thereby closing the quality chasm.

CPP, among other trauma-specific EBPs, has been disseminated to practitioners within the NCTSN through support of the NCTSN's "learning collaborative" training methodology, an innovative training approach that focuses on spreading, adopting, and adapting best practices—including EBPs—across multiple settings while simultaneously creating changes in organizations that promote the delivery of effective interventions and services (Markiewicz et al., 2006). The learning collaborative approach is being adapted by the NCTSN from the Breakthrough Series Collaborative model, developed by the Institute for Healthcare Improvement and identified as a recommended method for dissemination of best practices (Chadwick, 2004). Within the NCTSN, learning collaboratives bring together teams of clinicians, supervisors, senior agency leaders, intervention developers, and other stakeholders to engage in a process consisting of:

- Three on-site "learning sessions" led by a small faculty over the course of nine to 12 months;
- "Action periods" in between learning sessions providing opportunities for participants to practice new clinical competencies, address organizational change, and measure progress;
- Ongoing consultation for participants during action periods to sustain learning, including access to an intranet site with supportive resources and a series of conference calls hosted by faculty members or National Center for Child Traumatic Stress (NCCTS) staff.

The National Child Traumatic Stress Network

- **Category I—The National Center for Child Traumatic Stress** collaborates with SAMHSA to serve as the NCTSN's national coordinating center, providing technical assistance to NCTSN centers and coordinating resource development and training efforts, among other activities.
- **Category II—Treatment and Service Adaptation Centers** provide national expertise regarding trauma-specific treatments and interventions for diverse clinical and demographic populations and support the specialized adaptation of effective treatment and service approaches for communities across the country as appropriate.
- **Category III—Community Treatment and Services Centers** primarily provide direct mental health services to children and their families, implement and evaluate interventions in community-based settings, and collaborate with other NCTSN centers on clinical issues, service approaches, training, and other activities.

The NCCTS has developed and coordinated learning collaborative trainings for NCTSN centers, typically offering three learning collaborative "courses" annually, each focused on a different clinical intervention. Since the NCTSN's inception, learning collaborative trainings focused on CPP have occurred in 2007 and in 2009.

The Current Study

There is much to be learned about EBP implementation in general—and CPP implementation specifically—from the dissemination efforts currently underway in the NCTSN. In addition, although there is evidence to support the effectiveness of CPP treatment, the knowledge base is limited regarding approaches to successfully implement CPP in community-based mental health settings. Thus, the current study was developed to enhance understanding of the pathways through which implementation of CPP occurs, common barriers, and best practices leading to successful implementation of CPP.

Research related to the implementation of EBPs (e.g., Fixsen et al., 2005) and diffusion of innovations (e.g., Rogers, 1995) influenced the approach taken within the current study to examine the factors that influence implementation (for the purposes of this study, implementation is defined as the process of incorporating a practice or product as a part of the normal operation of an organization or community and as routine service delivery). This research identifies factors on multiple levels (e.g., innovation, practitioner, organization, system) that may increase or decrease the likelihood that members of a given culture will successfully implement certain practices or service modalities. For example, in a summary of the implementation literature, Fixsen et al. (2005) suggest that implementation appears most successful when:

- Carefully selected practitioners receive coordinated training, coaching, and frequent performance assessments;
- Organizations provide the infrastructure necessary for skillful supervision and coaching, and regular process and outcome evaluations;
- Communities and consumers are fully involved in the selection and evaluation of programs and practices; and
- State and federal funding avenues, policies, and regulations create a hospitable environment for implementation and program operations.

Others have suggested that similar combinations of factors are key to implementation success, including:

- The presence of trained and committed staff with adequate resources and managerial support;
- Access to technical assistance; and
- A system in place for monitoring implementation progress (McGuire, 2001; Panzano et al., 2005).

Research questions that guided the current study include: What are the facilitative factors the support the implementation of CPP? What are the barriers to the implementation of CPP?

Study Methods

In 2004, SAMHSA funded the NCTSI cross-site evaluation to assess the effectiveness of the NCTSN as a whole, including the network's impact as a national resource for enhancing the standard and quality of care for children and their families affected by traumatic stress. Findings

presented here come from a qualitative study conducted as part of this effort. Primary methods included hour-long, in-depth interviews conducted in July 2009 with NCTSN staff regarding the experience of implementing CPP.

Research Participants. The participants were 14 staff members from four NCTSN centers and included six administrators (several also served as clinical supervisors), two clinical supervisors, and six mental health service providers (three senior, two midlevel, and one junior) who had implemented CPP within their clinical practices and verbally consented to participate in the interviews.

Clients Served by CPP. Most of the clients served by the participants were living at or below poverty level, had been in chronically traumatizing situations, and presented with PTSD, attachment disorder, disorder of infancy or childhood, separation anxiety, and disruptive behavior disorder. Collectively, clients had been exposed to neglect, physical abuse, sexual abuse, emotional abuse, torture, traumatic grief/loss, medical trauma, the witnessing of physical abuse and domestic violence, serious accident, kidnapping, and homelessness. Most clients had been multiply traumatized. At two of the centers, most of the children who received CPP were in the child welfare system; at the other two, children lived with biological parents, in kinship care, in foster care or adoptive homes, or in a relief nursery. Two centers provided CPP exclusively in a clinic setting, and two provided CPP in a clinic and home setting. Most of the children served were under the age of four; however, the age range of children served was 0 to 12.

Response Analysis. Through use of a team-based qualitative analytic approach, the narrative responses of participants were analyzed using both a deductive and inductive process. First, evaluation team members reviewed and coded all transcripts using a deductive approach incorporating use of an initial list of codes (Bradley et al., 2007) based on the study's research questions and interview guides. Next, consistent with grounded theory, evaluation team members read through the text searching for emerging concepts (Strauss & Corbin, 1990) and added a second layer of coding. Finally, team members examined responses within codes or categories and conducted a thematic analysis of the results. All analysis was supported through use of the software package ATLAS.ti 5.2.9 (Muhr, 2004).

Study Findings: Facilitating Factors

Themes in responses related to facilitators and barriers to implementation are presented below, beginning with five themes related to facilitating factors.

Clinical Expertise/Therapeutic Approach. Two of the most important reported—and also related—factors that facilitated CPP implementation were found to be participants' clinical expertise and experience, and participants' positive perceptions of CPP. All participants described alignment between the expertise of clinicians in the study and CPP's multi-theoretical approach—integrating psychodynamic, attachment, trauma, cognitive-behavioral, and social-learning theories. Most clinicians had been trained in two or more of these theories, which created a strong philosophical identification and resonance. Participants of all types described that the match between the professional experience of individual staff members and one or more of the various disciplines that inform CPP supported the implementation of CPP over time; a few suggested that such clinical expertise was essential to facilitate CPP implementation. This is illustrated by a project director's comment:

> CPP is the perfect marriage of attachment-based therapy and trauma care. So, you have to understand both. It would be hard to learn that model if you didn't understand attachment-based therapies or trauma care. You have to have a level of experience to pick up that model.

Although most participants had never heard of CPP before their centers joined the NCTSN, they reported a very positive perception of this therapy.

Respondents' Positive Perceptions of CPP. Although most participants had never heard of CPP before their centers joined the NCTSN, they reported a familiarity with the tenets of CPP and—following an introduction to CPP—a very positive perception of this therapy. Most respondents, including all but one of the clinicians, reported that they believed strongly in the theoretical underpinnings of CPP, at least in part because it was compatible with their clinical training and expertise. In addition, they identified with other qualities of this therapy including:

- The appropriateness of its focus on involving caregivers as integral participants in therapy for very young traumatized children;
- The ability of the model both to provide structure and to allow for flexibility in addressing families' needs; and even
- The language of the model (e.g., the phrase "ghosts in the nursery," describing unconscious repetition of the past in the present) that was first coined more than 30 years ago (Fraiberg et al., 1975).

Consequently, most respondents expressed not only willingness but enthusiasm for the opportunity to be provided with training, resources, and administrative support to implement CPP. As one clinician stated:

> I was very interested because it's so consistent with what I know already and I really want to stay up to date. So, even though I knew Alicia Lieberman's work early on, I wanted to know what she was doing most recently. ... I was very excited about that (Dr. Alicia Lieberman is the director of the Early Trauma Treatment Network (ETTN), a collaborative of four university sites funded as part of the NCTSN, and a developer of CPP).

This enthusiasm appeared to motivate respondents to sustain progress in implementing CPP even as they faced considerable challenges as part of the implementation process. Such perceptions are notable, considering that implementation research and summaries typically suggest that clinician resistance is among the primary barriers to EBP implementation (Chadwick, 2004; Fixsen, Wallace & Naoom, 2005).

Organizational and Administrative Support/Regional Support. In addition, many clinical supervisors and clinicians indicated that administrative support for CPP within their programs was very strong and facilitated implementation. At two of the interview centers, the program directors also described a broader climate of support for EBPs within spheres of influence for the center, such as support within the larger

agency or university and the state. One program director said:

> We had a leadership here at the university and we have a Statewide presence that has paved the way to say we really value and want to support the implementation of evidence-based trauma treatments as long as they are family-friendly, incorporate the family, support the family's recovery. Our setting and leadership, it existed before the CPP Learning Collaborative and it just allowed that to be such an easy fit.

Several respondents commented that funding trends (e.g., federal and state funding of services) that favor EBPs were at least partly responsible for the climate of support for CPP implementation in their organization or state.

Learning Collaborative/Intervention Developers. At all four centers, respondents of all types overwhelmingly cited the learning collaborative as a critical aspect of the implementation process. The learning collaborative training was described as a "major motivator," and respondents appreciated the ongoing support of the faculty and colleagues, and the resources provided both initially and over time. About half of the respondents also commented that the involvement of the intervention developers in the learning collaborative was a significant highlight of participating in it, which is consistent with literature finding that a high level of involvement by program developers on a continuing basis is positively associated with successful implementation (Fixsen et al., 2005). For example, a clinical supervisor said:

> That is the best way to keep me motivated and I think [the best way] for our team to keep the momentum up and to not lose it in the face of other impinging therapeutic approaches or training needs or just general clinical work.

However, at one center, two respondents described having a mixed experience with the learning collaborative. Although they agreed that the learning collaborative was important in facilitating implementation, they also suggested that certain elements could be improved. These respondents suggested that:

- The learning collaborative faculty should provide additional case examples and opportunities for role plays during the in-person learning sessions to help make a model as flexible as CPP "more concrete";
- The faculty should ensure that a senior person always leads the conference calls that occur in between learning sessions;
- The faculty should provide additional support and guidance for participating supervisors, particularly those who are learning the model in tandem with the clinicians they supervise; and
- The training curriculum should address in more depth how to implement CPP in a culturally competent way.

Clinical Supervision. More than half of the respondents indicated that clinical reflective supervision was also among the essential supports promoting CPP implementation. Research has repeatedly shown that clinical supervision can affect therapists' efforts to implement new practice; although reading a manual or attending a workshop may initiate a transfer of knowledge, ongoing supervision is often needed for actual behavioral changes to occur among therapists (Bazelmans et al., 2004; Herschell et al., 2004; Kendall & Southam-Gerow, 1996). In addition, a high level of competency of supervisors is positively associated with therapist adherence and competence (Henggeler et al., 2002)—two factors that, in turn, are linked to implementation with fidelity to a treatment (Perpepletchikova & Kazdin, 2005). A clinical supervisor describes the way in which reflective supervision was implemented at the center:

> One of the things that is recommended is that clinicians doing this work have a reflective process in place to be able to address their own reaction to cases and how that influences the work that we're doing and [how to] deal with it when we get stuck in cases. How do we move forward and what's holding us back? To be able to evaluate where we're at and the role in which our own experiences influence that process.

Although reading a manual or attending a workshop may initiate a transfer of knowledge, ongoing supervision is often needed for actual behavioral changes to occur among therapists.

Study Findings: Challenges

Although respondents were consistent in suggesting that the CPP intervention represented an appropriate fit for their centers conceptually, practical issues also intervened to complicate the implementation process along the way. Four related themes were identified and are presented below.

Learning Curve. One of the most consistently cited challenges—which underscores the importance of ongoing supervision to support a new model—was an initial learning curve in understanding CPP. The learning curve was most often specifically related to clinicians' and others' becoming more familiar with one or more of the multiple theoretical constructs that inform CPP; it was also related to lack of familiarity with implementation of evidence-based or manualized practices. Although this group of clinicians was relatively senior, was experienced in mental health service delivery generally, and viewed CPP as philosophically compatible with their prior practices, the learning curve was nevertheless experienced among all clinicians at all levels. As an example, a senior clinician said:

> We're all learning and so I think we're all feeling some lack of confidence and security about, are we on the same page here?

A midlevel clinician said:

> [One] challenge ... is getting over that initial fear of not implementing it correctly. And then once we've been over that kind of fear and developed that framework and those cognitions within ourselves and learned that common language, I think that it's become easier.

One respondent said:

> At times, we don't feel like we really have a grasp on CPP as a concept, because ... we're not very manualized and we like to deviate from manuals. ... So we definitely want to check back to, "Are we keeping this model's fidelity?"

Engaging Parents/Caregivers. At all of the centers, particularly centers serving children in the child welfare system, most respondents also described challenges

related to identifying the appropriate caregiver to involve in CPP and how to encourage the caregiver's involvement and support. An administrator stated that in general:

> Our child welfare system feels very slow in terms of movement. There seem to be so many systems complications around this that also make it difficult for the family to engage in this type of ... it's an intensive treatment and so it ... can sometimes make things difficult.

Respondents also described different professional histories and experiences related to whether, and to what extent, they had typically involved caregivers in treatment as part of therapy for infants and young children before implementing CPP. Most said that they believed in involving caregivers in the child's therapy at least in some respects; however, policies at the centers varied regarding expectations for, and feasibility around, coordinating formal caregiver involvement. At one center, integrating the caregiver into treatment has been especially challenging because this center is part of a children's hospital; thus, historically, services have focused on the child as the client, rather than on including the caregiver as part of the therapeutic unit. At this center, incorporating the caregiver formally as part of treatment represented a major change in the existing organizational culture that required adjustment from clinicians, children already in treatment, and caregivers. In addition, administrative changes were required to create a billing system that could reflect the time spent with caregivers as well as children. An administrator said:

> We've been treating traumatized kids for 30 years ... while it doesn't go against the grain entirely, this idea of incorporating the caregiver as a target for treatment in and of itself, I was a little concerned about that as a challenge to our system.

Time-Intensiveness of the Model. Both the supervision and caregiver requirements of CPP are related in some ways to another challenge: time intensiveness. At three of the centers participating in the interviews, respondents indicated that, relative to other treatments, CPP is a time-intensive treatment that requires a significant investment from caregivers, therapists, and clinical supervisors. This challenge is particularly acute in settings in which clinicians are expected to maintain high caseloads. As one supervisor explained:

> There tend to be more clinical hours spent on a CPP case ... clinicians were meeting with the child and parent in the treatment and then also meeting with maybe the parent in a collateral meeting that week and a foster parent that week. Well, that's three hours of clinical time ... how are they going to fit that in their caseload?

In addition, the time required of caregivers can be a significant burden for the caregivers as well, particularly for families with multiple siblings in need of care. One supervisor describes a related situation:

> [There is] a family where there are three kids at different developmental levels with different needs, and all have a very significant attachment-related history and issues and need to do individual work, dyadic work with the caregiver. So, how do you require a foster parent who's the paternal aunt who is invested in these kids and will probably end up adopting these kids, how do you get her in for three hours a week when she doesn't have a car and these are all young kids and they have physical therapy, occupational therapy, speech therapy ... which requires her to do stuff. ... And then there are times when we meet with her separately too?

"We'll get sheets from Human Services that say, 'Ten month old. Saw her mother murdered. No mental health concerns.'"

Lack of Trauma Awareness/Understanding. Staff at three of the centers participating in the interviews, including about half of the respondents overall, described that a lack of trauma awareness among important figures in children's lives, including child welfare workers and other types of child-serving providers, parents/caregivers, and others, presented various barriers to CPP implementation and pointed to a need to improve education about trauma more generally. An associate director stated:

> Sometimes our child welfare system is not as developmentally and trauma-informed about what the needs of a child are ... there ends up being a lot of visitation recommendations that are happening prematurely.

A clinical director at another center described a lack of trauma awareness within the child welfare system that can be extreme in some cases:

> We'll get sheets from Human Services that say, "Ten month old. Saw her mother murdered. No mental health concerns."

Participants at the same center suggested that the child welfare system refused to approve funding for mental health services for the recommended length of time for CPP (i.e., 12 months) because of a lack of awareness about trauma and approaches to effectively treating it.

In addition, in building a referral system within an existing organization, a third center also faced the need to enhance trauma awareness among the various staff providing case management and other services (other than mental health services) for children. An administrator at this center said:

> I think that some of the difficulties are that we needed to train our case managers, our home visitors, our classroom teachers ... on how they fit into the [CPP] model [which] is a pretty big undertaking. Those are the people that our referrals come from. And, mental health, as we all know, has a stigma attached to it, so that has been the biggest issue.

Discussion of the Study

Although the effectiveness of CPP has been well established, this study is one of the first to examine the process of implementing CPP in community settings. This study identified factors associated with the initial implementation of CPP, based on the perspectives of participating clinicians, clinical supervisors, and administrators in the NCTSN.

What seems clear upon review of the findings is that many of the supports that have been identified in the literature as important to ensure successful EBP implementation were available to these participants in their efforts to implement CPP. For example, funding and top-level administrative support, two of the most frequently cited factors that promote the implementation of new interventions (Drake et al., 2001; Goldman et al., 2001), were identified by participants

as key factors contributing to implementation progress and the potential for sustainability. This finding resonates with the literature review by Fixsen et al. (2005) suggesting that implementation success is positively influenced by the presence of state and federal funding, policies, and regulations that create a climate of support for the implementation of new practices (Fixsen et al., 2005).

In addition, most of the participants suggested that the center's administration provided the infrastructure necessary for developing local supervisory structures to support CPP, and supervision is also commonly cited as a key variable determining implementation success (Bazelmans et al., 2004; Herschell et al., 2004; Spouse, 2001).

Moreover, centers in the sample were NCTSN-funded centers; thus, they received SAMHSA funding to support implementation and had access to the learning collaborative training. Viewed by some as a state-of-the-art approach to supporting implementation of EBPs (Agosti et al., 2007), the learning collaborative connects intervention developers with practitioners throughout the implementation process, a step linked to implementation success (Fixsen et al., 2005). It also provides technical assistance, consultation, and training over many months' time, rather than simply disseminating information without training or providing training at one point in time. The longer term approach has also been linked with implementation success (Ellis et al., 2003; Greenhalgh et al., 2004; Kelly et al., 2000) and was valued by all participants as a key motivational support during the implementation process.

To some extent, the availability of such resources to support implementation of EBPs—including state-of-the-art training, administrative support, and enhanced supervisory structures—is a testament to the impact of the NCTSN. Participants reported that these resources were among the most important factors facilitating implementation, which suggests that the goals of the NCTSN are being realized at least as part of these early implementation efforts.

This study finds that, regardless of the availability of resources, the participants encountered various challenges throughout the implementation process that required considerable effort, attention, and creative problem solving to resolve on the local level. The experience of these participants underscores that even when critical supportive resources are available, implementing a new practice can be a significant undertaking that requires moving beyond day-to-day treatment as usual for both individuals and organizations and a willingness to adapt to using innovative approaches—in some cases, for the first time in decades.

Although some studies find that clinicians often resist implementation of EBPs, in part because such practices are difficult to implement and require considerable changes to routine practice (Fixsen, Wallace & Naoom, 2005), the majority of the clinicians in this study were willing to attempt major changes in their practice because of their belief in this model and, as an extension of that, their ownership of its implementation. Although higher level funding, support, and training are often-cited critical resources needed for implementation, as some have suggested (Rapp et al., 2010), they could be necessary but insufficient conditions for successful implementation. Indeed, the clinicians in this study were in a position to address challenges from an insider's perspective using strategies tailored to their local circumstances, and their buy-in and support appear likely to have made a substantial difference in the overall success of implementation as well as the potential for sustainability.

Limitations of the Study. Although the centers that participated in the interviews are diverse, the respondents do not reflect the range of diversity of implementation experiences within the NCTSN, and the sample is not intended to be representative of the NCTSN. In addition, the coordinators of the learning collaborative training suggest that the centers selected for the training were selected in part because they appeared to be highly motivated to follow through with implementation. Therefore, the centers in the sample may be more motivated than the average to accomplish implementation. In short, the sample size and potential for selection bias, in conjunction with other methodological issues, limit generalizable conclusions.

In addition, the centers in this sample, by virtue of their grant funding and membership in the NCTSN, are potentially in a more advantageous position than other children's mental health centers in the country engaged in or considering similar implementation efforts. Nevertheless, the NCTSN represents a unique and understudied "real world laboratory" that should be examined to improve understanding of adoption, implementation, and transportability in diverse settings.

As an unintended consequence of the method of identifying respondents, which required that program directors identify staff at their centers involved in CPP implementation, the clinicians interviewed were generally very experienced. The findings indicate that a connection to this type of therapeutic approach based on clinicians' previous experiences facilitated implementation; this then raises a question about how the implementation experience might have been different in the case of less experienced clinicians. This may be an area to investigate further in future research.

Implications of the Study

The study results may inform practitioners, administrators, and others involved in future implementation of CPP in several important ways.

Practitioners' Clinical Experience. First, related to the finding that the clinical experience of practitioners greatly contributed to their positive perception of and connection to CPP, it may be helpful for administrators to screen practitioners who are anticipated to be involved in the implementation of CPP to ensure that they have some exposure to or previous experience related to one or more of the disciplines that inform CPP. Alternatively, less experienced practitioners could be provided with an opportunity for professional development or training to attain "prerequisite" education in advance of more intensive training in anticipation of CPP implementation. On the individual level, key factors positively associated with implementation include education (Boehm & Litwin, 1997) and experience with the same or similar innovation (Ennett et al., 2003). Thus, although less experienced clinicians may be able to implement CPP with appropriate training and coaching or supervision, this study adds to the literature indicating that past experience with a practice can enhance interest and willingness among practitioners to embrace implementation, thus facilitating implementation efforts and the potential for successful implementation with fidelity. For practitioners, it would be worth conducting a self-assessment to evaluate the match between one's own individual philosophical/historical approach to providing therapy and the influences and approach of CPP, and to identify potential professional development needs in advance of efforts to implement CPP.

Organizational Readiness. Second, as many respondents described, CPP is a time-intensive intervention; thus, it may be helpful for agencies that are considering an investment in CPP to conduct an assessment of organizational readiness. This assessment should include at a minimum consideration

of typical organizational factors that are associated with implementation, including the match to program goals and vision (MacDonald & Green 2001); skills for planning, implementation, and evaluation (Riley et al., 2001); and others identified in the research. In addition, such an assessment should consider whether the center can support specific aspects of CPP that this study found to be particularly important to the implementation process. Primarily, these include the need to involve caregivers in this dyadic treatment who, particularly in the case of children exposed to domestic violence, are often foster parents or transitional caregiver figures. Thus, a substantial investment of time is necessary not only for clinical contact, but also in order to identify the appropriate caregivers, secure their buy-in, motivate them, and facilitate their involvement in therapy. Similarly, it is necessary to "carve out" time for all practitioners to participate in reflective supervision, which can be challenging, particularly in fee-for-service environments.

Although the time-intensiveness of the model should not necessarily be a deterrent to adopting CPP, it should be a consideration in preparing for implementation. For example, as a strategy, administrators may attempt to reduce the caseload of clinicians who carry CPP cases and to consider that while CPP cases may require more time, they also tend to close more quickly, which provides a rationale for systems to accommodate this intervention. Overall, it is important to assess whether and how time can be made available to implement this model in a way that does not threaten the stability or productivity of the center or agency. Practitioners should consider whether the agency's administration could be persuaded to support the implementation process, regardless of the need to coordinate potentially significant changes within the organizational culture. In addition, practitioners should consider whether and to what extent implementation of CPP would require changes in the way in which they are personally accustomed to providing therapy.

Training and Supervision. Third, training for practitioners and ongoing coaching or supervision are essential, based both on the findings of this study and other research (Bazelmans et al., 2004; Henggeler et al., 2002; Herschell et al., 2004; Kendall & Southam-Gerow, 1996; Spouse, 2001). Even the most clinically experienced respondents in this study described a steep learning curve and an initial uncertainty or lack of confidence in adapting to CPP. The participants indicated consistently that learning occurs and confidence is built during the supervisory process. Considering that competence in supervision has been found to foster both therapist adherence as well as effectiveness (Henggeler et al., 2002), it is worth considering whether supervisors can be trained in advance of the clinicians they will be supervising on the CPP model. In addition, the type of training provided for both supervisors and clinicians is important. Specifically, the most successful training approaches incorporate training and/or ongoing coaching or technical assistance over time rather than during one session (Agosti et al., 2007; Ellis et al., 2003; Greenhalgh et al., 2004; Kelly et al., 2000). Finally, while the involvement of intervention developers may not be feasible, it could be useful to investigate the possibility of involving these or other experts in an advisory capacity.

Although the time-intensiveness of the model should not necessarily be a deterrent to adopting CPP, it should be a consideration in preparing for implementation.

Conclusion

Although preliminary, the current research points to tangible facilitative factors and barriers of CPP implementation and implications for future implementation efforts. In future research, it would be useful to examine how implementation factors interact over stages of the implementation process and also which factors are most important at which points in time. Some studies (e.g., McCormick et al., 1995; Panzano et al., 2005) find that the implementation of EBPs typically involves a complex interplay of implementation variables that changes over time throughout the various stages of implementation.

In addition, there is much to be learned from research that examines the extent to which clinicians are able to implement CPP with fidelity even as they address the most complicated and challenging cases, and the degree to which CPP implementation is sustainable, even as the environmental context shifts over time (e.g., with changes in local or national funding trends, local organizational structure, staff turnover, and so on).

Finally, an expected benefit of implementing an EBP is that one would expect to see improved outcomes; thus, it could be useful in future studies to examine the outcomes of CPP cases in parallel to examining the factors that affect particular implementation efforts to assess potential relationships. Collectively, such research would help to strengthen understanding of implementation processes, which in turn can be used to more effectively translate science to service and improve outcomes for trauma-exposed children and their families.

References

Agosti, J., Ebert, L., Amaya-Jackson, L., Kisiel, C., Markiewicz, J., & Maze, J. (2007). *Improving the Adoption of Evidence-Based Practice in Community Agencies. Using the Breakthrough Series Collaborative Methodology in Child Trauma: Final report*. Los Angeles, CA, & Durham, NC: National Center for Child Traumatic Stress.

Bazelmans, E., Prins, J., Hoogveld, S., Bleijenberg, G. (2004). Manual-based cognitive behavior therapy for chronic fatigue syndrome: Therapists' adherence and perceptions. *Cognitive Behavior Therapy, 33,* 143–150.

Boehm, A., & Litwin, H. (1997). The influence of organizational and personal characteristics on community planning activity. *Administration in Social Work, 21,* 31–48.

Bradley, E.H., Curry, L.A., & Devers, K.J. (2007). Qualitative data analysis for health services research: Developing taxonomy, themes, and theory. *Health Service Research, 42(4),* 1758–1772.

California Evidence-Based Clearinghouse for Child Welfare (CEBC, 2011). Child-Parent Psychotherapy. Available at *http://www.cebc4cw.org/program/child-parent-psychotherapy/*.

Chadwick Center for Children and Families. (2004). *Closing the Quality Chasm in Child Abuse Treatment: Identifying and Disseminating Best Practices*. San Diego, CA: Author.

Cicchetti, D., Rogosh, F.A., & Toth, S.L. (2006). Fostering secure attachment in infants in maltreating families through preventive interventions. *Development and Psychopathology, 18,* 623–649.

Cicchetti, D., & Valentino, K. (2006).An ecological transactional perspective on child maltreatment: Failure of the average expectable environment and its influence upon child development. In D. Cicchetti & D.J. Cohen (Eds.). *Developmental Psychopathology. Risk, Disorder, and Adaptation, Vol. 3* (2nd ed.). New York: Wiley.

Drake, R.E., Goldman, H.H., Leff, H.S., Lehman, A.F., Dixon, L., Mueser, K.T., & Torrey, M.D. (2001). Implementing evidence-based practices in routine mental health service settings. *Psychiatric Services, 52(2),* 179–182.

Ellis, P., Robinson, P., Ciliska, D., Armour, T., Raina, P., Brouwers, M., et al. (2003). *Diffusion and Dissemination of Evidence-Based Cancer Control Interventions.* Evidence Report/Technology Assessment Number 79. (Prepared by Oregon Health and Science University under contract no. 290-97-0017.) AHRQ Publication No. 03-E033). Rockville, MD: Agency for Healthcare Research and Quality.

Ennett, S.T., Ringwalt, C.L., Thorne, J., Rohrbach, L.A., Vincus, A.,Simons-Rudolph, A., & Jones, S. (2003). A comparison of current practice in school-based substance use prevention programs with meta-analysis findings. *Prevention Science, 4(1),* 1–14.

Fairbank, J.A. (2008). The epidemiology of trauma and related disorders in children and youth. *PTSD Research Quarterly, 19(1),* 1–3.

Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., Koss, M.P., & Marks, J.S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Child Experiences (ACE) Study. *American Journal of Preventive Medicine, 14(4),* 245–258.

Fixsen, D.L., Naoom, S.F., Blase, K.A., Friedman, R.M. & Wallace, F. (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).

Fixsen, D.L., Wallace, F., & Naoom, S.F. (2005). Top five reasons not to use evidence-based programs. In C. Newman, C. Liberton, K. Kutash & R. Friedman (Eds.). *The 17th Annual Research Conference Proceedings: A System of Care for Children's Mental Health: Expanding the Research Base* (pp. 89–91). Tampa FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

FPG Child Development Institute (2011). *Early Childhood Community, University of North Carolina*. Available at *http://community.fpg.unc.edu/discussions/wiki-pd-approaches/discuss-reflective-supervision*.

Fraiberg, S., Adelson, E., & Shapiro, V. (1975). Ghosts in the nursery. A psychoanalytic approach to the problems of impaired infant-mother relationships. *Journal of the American Academy of Child Psychiatry, 14,* 387–422.

Goldman, H.H., Ganju, V., Drake, R.E., Gorman, P., Hogan, M., Hyde, P.S., et al. (2001). Policy implementations for implementing evidence-based practices. *Psychiatric Services, 52(12),* 1591–1597.

Greenhalgh, T., Robert, G., MacFarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly, 82(4),* 581–629.

Henggeler, S., Schoenwald, S., Liao, J., Letourneau, E., & Edwards, D. (2002). Transporting efficacious treatments to field settings: The link between supervisory practices and therapist fidelity in MST programs. *Journal of Clinical Child and Adolescent Psychology, 31,* 155–167.

Herschell, A., McNeil, C., & McNeil, D. (2004). Clinical child psychology's progress in disseminating empirically supported treatments. *Clinical Psychology: Science and Practice,11,* 267–288.

Kelly, J. A., Somlai, A. M., DiFranceisco, W. J., Otto-Salaj, L. L., McAuliffe, T. L., Hackl, K. L., Heckman TG, Holtgrave DR, Rompa D. (2000). Bridging the gap between the science and service of HIV prevention: Transferring effective research-based HIV prevention interventions to community AIDS service providers. *American Journal of Public Health, 90(7),*1082–1088.

Kendall, P.C., & Southam-Gerow, M. (1996). Long-term follow-up of treatment for anxiety disordered youth. *Journal of Consulting and Clinical Psychology, 64,* 724–730.

Lieberman, A.F. (2004). Traumatic stress and quality of attachment: reality and internalization in disorders of infant mental health. *Infant Mental Health Journal, 25(4),* 336–351.

Lieberman, A.F., Ghosh Ippen, C., & Van Horn, P. (2006). Child-parent psychotherapy: 6-month follow-up of a randomized controlled trial. *Journal of the American Academy of Child Adolescent Psychiatry, 45*(8), 913–918.

Lieberman, A.F., & Van Horn, P. (2005). *Don't Hit My Mommy! A Manual for Child-Parent Psychotherapy With Young Witnesses of Family Violence*. Washington, DC: Zero to Three Press.

Lieberman, A.F., Van Horn, P., & Ghosh Ippen, C. (2005). Toward evidence-based treatment: Child-parent psychotherapy with preschoolers exposed to marital violence. *Journal of the American Academy of Child Adolescent Psychiatry, 44(12),* 1241–1248.

Lieberman, A.F., Van Horn, P., Grandison, C.M., & Pekarsky, J.H. (1997). Mental health assessment of infants, toddlers, and preschoolers in a service program and a treatment outcome research program. *Infant Mental Health Journal, 18,* 158–170.

Lieberman, A.F., Weston, D.R., & Pawl J.H (1991). Preventive intervention and outcome with anxiously attached dyads. *Child Development, 62,* 199–209.

MacDonald, M.A., & Green, L.W. (2001). Reconciling concept and context: The dilemma of implementation in school-based health promotion. *Health Education & Behavior, 28(6),* 749–768.

Margolin, G., & Gardis, E.B. (2000). The effects of family and community violence on children. *Annual Review of Psychology, 51,* 445–479.

Markiewicz, J., Ebert, L., Ling, D., Amaya-Jackson, L., & Kisiel, C. (2006). *Learning Collaborative Toolkit*. Los Angeles, CA, & Durham, NC: National Center for Child Traumatic Stress. Available at *http://www.nctsn.org/nctsn_assets/pdfs/lc/Module_all.pdf*.

McCormick, L.K., Steckler, A.B., & McLeroy, K.R. (1995). Diffusion of innovations in schools: A study of adoption and implementation of school-based tobacco prevention curricula. *American Journal of Health Promotion, 9(3),* 210–219.

McGuire, J. (2001). What works in correctional intervention? Evidence and practical implications. In G.A. Bernfeld, D.P. Farrington & A.W. Leschied (Eds.). *Offender Rehabilitation in Practice: Implementing and Evaluating Effective Programs* (pp. 25–43). London: Wiley.

Mazza, J.J., & Reynolds, W.M. (2000). Children and adolescents exposed to community violence: A mental health perspective for school psychologists. *School Psychology Review, 29,* 86–101.

Melhem, N.M., Day, N., Shear, K., Day, R., Reynolds, C.F., & Brent, D. (2004). Traumatic grief among adolescents exposed to a peer's suicide. *American Journal of Psychiatry, 161,* 1411–1416.

Muhr, Thomas (2004). *User's Guide to ATLAS.ti 5.0* (2nd ed.). Berlin: Author. Available at *http://downloads.atlasti.com/atlman.pdf*.

National Child Traumatic Stress Network (NCTSN, 2011a). *Empirically Supported Treatments and Promising Practices*. Available at *http://www.nctsn.org/nctsn_assets/pdfs/promising_practices/NCTSN_E-STable_21705.pdf*.

National Child Traumatic Stress Network (NCTSN, 2011b). *Fact Sheet: Child Parent Psychotherapy (CPP)*. Available at *http://www.nctsnet.org/nctsn_assets/pdfs/promising_practices/C-P%20Psychptherapy%20for%20FV_2-11-05%20.pdf*.

Panzano, P.C., Roth, D., Crane-Ross, D., Massatti, R., Carstens, C., Seffrin, B., & Chaney-Jones, S. (2005). The innovation diffusion and adoption research project (IDARP): Moving from the diffusion of research results to promoting the adoption of evidence-based innovations in the Ohio mental health system. In D. Roth & W. Lutz (Eds.). *New Research in Mental Health*, Vol. 16 (pp. 78–89). Columbus, OH: Ohio Department of Mental Health.

Perpepletchikova, F., & Kazdin, A. (2005). Treatment integrity and therapeutic change: Issues and research recommendations. *Clinical Psychology: Science and Practice,12,* 365–383.

Rapp, C.A., Etzel-Wise, D., Marty, D., Coffman, M., Carlson, L., Asher, D., Callaghan, J., & Holter, M. (2010). Barriers to evidence-based practice implementation: Results of a qualitative study. *Community Mental Health Journal, 46,* 112–118.

Riley, B.L., Taylor, S.M., & Elliot, S.J. (2001). Determinants of implementing heart health promotion activities in Ontario public health units: A social ecological perspective. *Health Education Research, 16,* 425–441.

Rogers, E.M. (1995). *Diffusion of Innovations* (5th ed.). New York: Free Press.

Spouse, J. (2001). Bridging theory and practice in the supervisory relationship: A sociocultural perspective. *Journal of Advanced Nursing, 33(4),* 512–522.

Strauss, A., & Corbin, J (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage.

Toth, S.L., Maughan, A., Manly, J.T., Spagnola, M., & Cicchetti, D. (2002). The relative efficacy of two interventions in altering maltreated preschool children's representational models: Implications for attachment theory. *Development and Psychopathology, 14,* 877–908.

U.S. Department of Health and Human Services, Administration on Children, Youth and Families (USDHHS, 2011), *Child Maltreatment 2009.* Washington, DC: U.S. Government Printing Office. Available at *http://www.childtrendsdatabank.org/sites/default/files/40_Child_Maltreatment.pdf.* ■

From the Literature: What's Hot … What's Not

by Lorraine Dubuisson*

Positive Behavioral Support Strategies

CHARGE Syndrome: An Educators' Primer

Smith, K.G., Smith, I.M., & Blake, K.
Education and Treatment of Children
33:289–314, 2010

CHARGE Syndrome (CS) is a relatively newly recognized syndrome that was first identified in the 1970s and is characterized by vision and hearing impairment, heart defects, choanal atresia, retarded growth and development, genital hypoplasia in males, cleft palate, and cranial nerve dysfunction. In addition, individuals with CS may have difficulty swallowing, chewing, breathing, and making facial expressions. When the syndrome was initially identified, many children with CS died, but as medical treatments have advanced, the survival rate for children with CS has improved. As a result, more children with CS are now entering the public educational system, and they bring with them a variety of challenging behaviors such as self-stimulatory behaviors, maladaptive routines, tics, obsessive-compulsive symptoms, autistic spectrum disorders, attention deficit hyperactivity disorder, and Tourette syndrome. Cognitive impairments vary in degree from individual to individual. This article is intended to aid teachers in inclusive classrooms that contain one or more students with CS.

After an overview of current educational methods for children with multiple disabilities, the authors suggest that functional assessment and positive behavioral support strategies constitute the best interventions for students with CS. For instance, teachers might alter the classroom environment to accommodate a student's visual needs or make curricular adaptations such as allowing extra time to complete tasks. Educators can also increase predictability and scheduling, increase choice-making opportunities, teach replacement behaviors, and remember to praise positive behavior. The article concludes with a case study of a high school student with severe CS and gives a list of resources for educators.

Charles Hall Youth Services Gets New Curriculum

Shifting Gears: From Coercion to Respect in Residential Care

Dunn, L.T.
Reclaiming Children and Youth
19:40–44, 2010

The Teel Institute of Kansas City, Missouri, has spent the past 12 years developing and studying the efficacy of a K-12 spiral curriculum designed to help youth cultivate the kinds of skills that help to prevent drug use, underachievement, bullying, and depression. Operating under the principle that preventing mental illness is much easier than treating it, this curriculum asks youth to be accountable for their actions:

> Students study topics such as admitting and correcting mistakes, handling failure, understanding and dealing with emotions, taking responsibility, respecting one's own rights and the rights of others, setting and working toward goals, understanding oneself and others, empathizing, appreciating individual differences, applying effort and perseverance, managing conflict, and solving moral dilemmas.

Three years ago, the Charles Hall Youth Services (CHYS), a residential foster-care facility located in North Dakota, partnered with the Teel Institute in order to overhaul its curriculum from an adult-centered, punitive model to one more in line with the Teel Institute's values. CHYS serves a population of roughly 100 boys and girls ages 12 to 17 with a high percentage of Native American residents. CHYS houses youth whose families are unable to care for them as well as youth who are being disciplined for such infractions as truancy and substance abuse. The old curriculum model was based on a system of demerits; the new model requires residents to apply for greater freedom and more privileges with the help of a staff mentor. With the Teel Institute's assistance, CHYS has seen a high degree of improvement in relationships between staff and residents and in residents' behavior.

Working Memory Problems Linked to Poor Academic Attainment

Examining the Link Between Working Memory Behavior and Academic Attainment in Children With ADHD

Alloway, T.P., Gathercole, S.E., & Elliott, J.
Developmental Medicine and Child Neurology
52:632–636, 2010

Working memory is defined as the ability to retain and manipulate data for a short time. Working memory is generally considered necessary in the acquisition of literacy and numeracy. In light of the increasing evidence that students with ADHD display classroom behaviors consistent with working memory problems, this study examines how those classroom behaviors affect learning. Researchers compared three groups of students—one group with ADHD and two control groups without ADHD. One of the control groups contained students with low working memory, and the other group contained students with normal working memory. Using the Working Memory Rating Scale (WMRS) and other assessments, researchers measured students' verbal and visuospatial working memories. Findings indicate that students with ADHD demonstrate behaviors indicative of low working memory that are associated with poor academic achievement.

Operating under the principle that preventing mental illness is much easier than treating it, this curriculum asks youth to be accountable for their actions.

*Lorraine Dubuisson is an assistant professor of English at Middle Georgia College, in Cochran, GA. She can be reached by email at ldubuisson@mgc.edu.

Gray Matter Reduction in Psychotic Youth

Brain Volumes in Psychotic Youth With Schizophrenia and Mood Disorders

El-Sayed, M., Steen, R.G., Poe, M.D., Bethea, T.C., Gerig, G., Lieberman, J., & Sikich, L.
Journal of Psychiatry & Neuroscience
35:229–236, 2010

According to the article's abstract:

> [Researchers] sought to test the hypothesis that deficits in grey matter volume are characteristic of psychotic youth with early-onset schizophrenia-spectrum disorders (EOSS) but not of psychotic youth with early-onset mood disorders (EOMD).

In other words, they wondered whether gray matter reduction is the result of the disease of schizophrenia or of the chronic psychotic symptoms present not only with schizophrenia, but also with other conditions such as affective illness. Using magnetic resonance imaging (MRI), researchers examined the brains of patients with EOSS and EOMD as well as a control group of healthy subjects. Results of the study suggest that loss of brain volume is a consequence of schizophrenia rather than of chronic psychosis. However, the study is limited due to the small sample size, and further research into this question is necessary.

Multiprofessional vs. Uniprofessional Interventions

Working With Adolescents With Mental Disorders: The Efficacy of a Multiprofessional Intervention

Michela, G., Riccardo, P., Paolo, T.C., Paola, T., Ecaterini, P., & Antonio, B.P.
Health
2:811–818, 2010

The authors of this study posit that psychological, parapharmacological, and socioenvironmental are the three general approaches to the study and treatment of mental health disorders. Their hypothesis is that combining interventions from the three theoretical-methodological systems is more effective than relying on one approach alone. The study followed 100 Italian adolescents with emotional and behavioral problems for one year as they were treated with psychotherapy with interviews, pharmacotherapy with clinical monitoring, and various group and individual activities mediated by educational operators. Some of the subjects of the study were treated with only one of the three interventions; others were treated with two, and the final group was treated with all three. The study found patients who were treated with all three interventions had the best results.

Youth Empowerment and Crime Reduction

Youth Empowerment as a Strategy for Reducing Crime in the Society

Olaleye, Y.L.
European Journal of Social Sciences
15:104–111, 2010

According to Olaleye, "Youth empowerment means involving young people in decision-making processes on issues that affect them, as well as entrusting them with the knowledge and skills necessary for them to effectively and meaningfully participate."

This study examines the relationships among youth empowerment, socioeconomic factors, and crime involvement. Not surprisingly, previous studies have demonstrated that socioeconomic factors such as poverty and malnutrition contribute to an individual's decision to participate in criminal activities, whereas factors such as sense of community and education can help deter an individual from criminal involvement. In this study, Olaleye gathered data using questionnaires from a random sample of 450 Nigerian youths. Findings indicate a strong relationship between youth empowerment and the attitude toward crime involvement, a strong connection between youth empowerment and poverty alleviation, and the fact that males are more involved in crime than females. As a consequence, Olaleye believes it is imperative for governments to institute programs that focus on youth empowerment as a preventative strategy.

Connection Between Phthalates and Behavior Problems

Prenatal Phthalate Exposure Is Associated With Childhood Behavior and Executive Functioning

Engel, S.M., Miodovnik, A., Canfield, R.L., Zhu, C., Silva, M.J., Calafat, A.M., & Wolff, M.S.
Environmental Health Perspectives
118:565–571, 2010

High molecular weight phthalates (HMWP) are used to construct materials such as vinyl flooring and wall coverings; low molecular weight phthalates (LMWP) can be found in makeup, shampoo, and other personal hygiene and beauty products. They can be introduced into the body when people breathe them in, eat them, or touch them. Previous research suggests that exposure to phthalates can affect reproductive health and thyroid functioning; it may also be related to attention deficit hyperactivity disorder. Using data from the Mount Sinai Children's Environmental Health Study, researchers measured the phthalate metabolite concentrations of pregnant women. They then assessed the children in follow-up visits with the Behavior Rating Inventory of Executive Function (BRIEF) and the Behavior Assessment System for Children-Parent Rating Scales (BASC-PRS). According to the results of the study, higher concentrations of prenatal LMWP increase aggression, attention problems, conduct problems, and depression in children.

The study suggests that higher concentrations of prenatal LMWP increase aggression, attention problems, conduct problems, and depression in children.

Comorbidity Related to Academic Performance

School Functioning in Youth With and Without Anxiety Disorders: Comparisons by Diagnosis and Comorbidity

Mychailyszyn, M.P., Mendez, J.L., & Kendall, P.C.
School Psychology Review
39:106–121, 2010

In this study of 227 youth ages seven to 14, researchers examined the relationship between anxiety disorders and school functioning. Separation anxiety disorder (SAD) is characterized by extreme anxiety over separation from the home and loved ones. Social phobia (SP) is the fear of being embarrassed in social and performance settings. Generalized anxiety disorder (GAD) is defined as disproportionate and uncontrollable worry over a variety of events and situations that persists daily for more than six months. The study relied on parental reports of academic achievement and teacher reports of classroom functioning. Researchers expected to find that students with anxiety disorders would have greater problems with school functioning and that students with multiple anxiety disorders would have the greatest difficulties. This hypothesis was borne out by the results of the study. Those students with behavioral, mood, or other anxiety disorders in addition to the principal diagnosis of SAD, SP, or GAD demonstrated the highest degree of impairment in academic achievement.

Most disturbingly, results also suggest that once a child is identified as a victim, that perception clings to the child as he ages. This study found no group of children who began as victims but escaped victimization.

Tough Love Doesn't Work

Conduct Disorders: Are Boot Camps Effective?

Jeter, L.V.
Reclaiming Children and Youth
19:32–36, 2010

Conduct disorders are characterized by rule-breaking or defiant behaviors, destruction of property, deceitful behaviors, and aggression to people or animals that persists for at least a year and interferes with academic achievement, social life, or occupational functioning. Conduct disorders often manifest differently in males than in females. Between 6% and 10% of U.S. adolescents are estimated to have conduct disorders. The causes of conduct disorders are not clear, although poor parenting and child abuse seem related to these disorders. Of further concern is that the criteria used to diagnose conduct disorders are not consistently applied, leading to disagreement over diagnoses even among highly trained professionals.

Despite the prevailing wisdom that tough love is necessary to treat adolescents with conduct disorders, the efficacy of boot camps is not supported by empirical evidence. Boot camps are patterned after basic training for the armed services and are intended to punish adolescents for criminal infractions as well as to rehabilitate them. Three general types of boot camps exist. The first is most like basic training in the military, with its strong focus on physical conditioning and strict discipline. The second maintains the military model but introduces therapeutic programs such as counseling and job training. The final type uses fewer elements of basic training and emphasizes modeling and positive reinforcement. According to Jeter, no evidence exists that boot camps rehabilitate or prevent relapses into criminal behavior. Although boot camps do help to save money and reduce overcrowding in criminal facilities (and are generally described as positive experiences for both staff and adolescent participants), data indicate that recidivism rates do not decrease for adolescents with conduct disorders who go through boot camps. Additionally, boot camps may work even less well for female adolescents than they do for males.

Peer Victimization and Behavioral Correlates

The Developmental Trajectories of Peer Victimization in Middle to Late Childhood and the Changing Nature of Their Behavioral Correlates

Boivin, M., Petitclerc, A., Feng, B., & Barker, E.D.
Merrill-Palmer Quarterly
56:231–260, 2010

Evidence suggests that as many as 10% of children are victimized by their peers and that this victimization is linked to all manner of social, emotional, academic, and behavioral problems in the victims. Passive victims are characterized by anxiety, sadness, oversensitivity, and withdrawal. Not surprisingly, children who overreact, are easily upset, and don't appear likely to retaliate when bullied are the most likely candidates for victimization; provocative victims are characterized by aggressive behaviors. Using data from a four-year study of 1,035 Canadian students in the third through sixth grades, researchers investigated the link between peer victimization and three social and emotional difficulties: aggressive behavior, social withdrawal, and emotional vulnerability. Peer victimization was assessed using the victimization subscale of the peer nomination inventory. Students were asked to identify classmates who were regularly called names or made fun of, in addition to those peers who instigated the bullying.

The study found that initially, aggressive behavior, social withdrawal, and emotional vulnerability are all strongly linked to peer victimization; however, as time passes, aggressive behavior plays a much smaller role in whether children are bullied or not. Most disturbingly, results also suggest that once a child is identified as a victim, that perception clings to the child as he ages. This study found no group of children who began as victims but escaped victimization, only children who were not victimized at all and children who continued to be victimized throughout the duration of the study.

Most Common Disorders in Adolescent Male Prisoners

Psychiatric Disorders in Detained Male Adolescents: A Systematic Literature Review

Colins, O., Vermeiren, R., Vreughdenhil, R., Van den Brink, W., Doreleijers, T., & Broekaert, E.
The Canadian Journal of Psychiatry
55:255–236, 2010

Little attention has been paid to the prevalence of psychiatric disorders in adolescent male prisoners. In fact, this systemic literature review could find only 15 studies that met its criteria for inclusion. As expected, the review

suggests that detained male adolescents experience higher rates of psychiatric disorders than adolescent males who are not imprisoned. These disorders include conduct disorder, attention deficit and hyperactivity disorder, major depression, and oppositional defiant disorder. Most of these diagnoses depended on self-reporting of symptoms rather than the multi-informant assessments more commonly used to diagnose psychiatric disorders in other settings. Because the adolescents themselves are often unreliable informants, the authors of this article recommend including parental information in addition to self-reporting. They suggest that screening for mental illness at the beginning of incarceration is paramount and that continuing assessment after the prisoner is released is also needed. The article also includes a discussion of racial and ethnic differences in the prevalence of psychiatric disorders, in addition to a description of the difficulties of considering functional impairment in this population. ■

Calendar of Events, June – August 2011

June

1-4 **Association of Family and Conciliation Courts 48th Annual Conference "Research, Policy, and Practice in Family Courts: What's Gender Got to Do With It?"** Orlando, FL. Sponsor: Association of Family and Conciliation Courts (AFCC). Website: *www.afccnet.org/conferences/*

2-4 **41st Annual Meeting of the Jean Piaget Society: "Cultural Supports for Developing Mathematical and Scientific Reasoning."** Berkeley, CA. Sponsor: Jean Piaget Society. Website: *www.piaget.org*

2-4 **72nd Annual Convention of the Canadian Psychological Association.** Toronto, CAN. Sponsor: Canadian Psychological Association. Website: *www.cpa.ca*

6-10 **2011 National Gang Symposium.** Orlando, FL. Sponsor: OJJDP. Website: *http://www.ojjdp.gov/*

8-11 **2011 Conference on Family Group Decision Making and Other Family Engagement Approaches.** Las Vegas, NV. Sponsor: American Humane Association. Website: *www.americanhumane.org*

9-11 **Mental Health America Centennial Conference.** Washington, DC. Sponsor: Mental Health America. Website: *http://mentalhealthamerica.net/*

13-16 **19th Annual American Professional Society on the Abuse of Children Colloquium.** Philadelphia, PA. Sponsor: American Professional Society on the Abuse of Children (APSAC). Website: *www.apsac.org*

16-19 **The Society for Community Research and Action 14th Biennial Conference.** Chicago, IL. Sponsor: Society for Community Research and Action (SCRA). Website: *www.scra27.org/biennial*

22-25 **National Association for Rural Mental Health: 2011 Annual Conference.** Dubuque, IA. Sponsor: National Association for Rural Mental Health (NARMH). Website: *www.narmh.org/*

25-28 **Perk Up Your Program: American School Counselor Association 2011 Conference**. Seattle, WA. Sponsor: American School Counselor Association (ASCA). Website: *www.schoolcounselor.org/*

26-29 **2011 National School-Based Health Care Convention: School-Based Health Care and the Community: A Partnership That Works.** Chicago, IL. Sponsor: National Assembly on School-Based Health Care (NASBHC). Website: *www.nasbhc.org/*

27-July 1 **Texas Juvenile Justice Summit: A Continuum of Services.** Austin, TX. Sponsor: OJJDP. Website: *http://www.ojjdp.gov/*

30-July 3 **NASN 43rd Annual Conference: Voice, Vision, Visibility.** Washington DC. Sponsor: National Association of School Nurses. Website: *www.nasn.org*

July

6-9 **2011 National Alliance on Mental Illness National Convention.** Chicago, IL. Sponsor: National Alliance on Mental Illness (NAMI). Website: *www.nami.org/*

10-14 **12th IASE Biennial Conference: Educating Every Learner, Every Day: A Global Responsibility.** Windhoek, Namibia. Sponsor: International Association of Special Education (IASE). Website: *www.iase.org*

10-15 **2011 World Conference of the International Foster Care Organization.** Victoria, CAN. Sponsor: IFCO. Website: *www.ifco2011.com*

11-12 **6th International Conference on Child and Adolescent Psychopathology.** London, UK. Sponsor: American Psychological Association. Website: *www.apa.org*

24-27 **25th Annual Conference on Treatment Foster Care.** Orlando, FL. Sponsor: Foster-Family Based Treatment Association. Website: *www.ffta.org*

24-27 **National Council of Juvenile and Family Court Judges 74th Annual Conference.** New York, NY. Sponsor: OJJDP. Website: *http://www.ojjdp.gov/*

31-Aug 4 **School Health Interdisciplinary Conference (SHIP): Adjusting our Sails: Charting the Course for our Children's Future.** Towson, MD. Sponsor: Center for School Mental Health. Website: *http://csmh.umaryland.edu/conf_meet/ship/*

August

4-7 **119th Annual Convention of the American Psychological Association.** Washington DC. Sponsor: American Psychological Association (APA). Website: *www.apa.org*

23-27 **15th European Conference on Developmental Psychology.** Bergen, Norway. Sponsor: American Psychological Association (APA). Website: *www.apa.org*

29-Sept 1 **National Association of Counsel for Children 34th National Juvenile and Family Law Conference.** San Diego, CA. Sponsor: National Association of Counsel for Children. Website: *www.naccchildlaw.org/?page=National_Conference*