

ISSUE BRIEF: USING PRACTICE-BASED EVIDENCE TO COMPLEMENT EVIDENCE-BASED PRACTICE IN CHILDREN'S MENTAL HEALTH



OUTCOMES ROUNDTABLE FOR CHILDREN AND FAMILIES

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INTRODUCTION

In the last 15 years, there have been increased efforts to improve children's mental health services by identifying practices shown to be effective. This has been manifested through a proliferation of evidence-based practices (EBP) developed through rigorous empirical testing (Sackett, Rosenberg, Gray, Harnes, & Richardson, 1996). To be considered an EBP a practice "needs to fulfill particular criteria, that includes (a) at least two controlled group design studies or a large series of single-case design studies, (b) a minimum of two investigators, (c) the consistent use of a treatment manual, (d) clinicians with uniform training and adherence, and (e) long-term outcomes measured beyond the end of the treatment intervention" (Hoagwood, 2003, p. 555). EBPs have become a focus of attention at the policy and practice levels in children's mental health as states, policy makers, family members, youth, and funders advocate for sound interventions shown to improve outcomes for children, youth, and their families.

Despite the availability of over 450 EBPs, communities still struggle to implement EBPs. One of the struggles is that the EBPs available are not always applicable to the unique characteristics of the children, youth, and families they are serving (Chorpita, 2010). Various stakeholders have advocated additional approaches to identifying and implementing effective interventions for youth in addition to EBPs. Two of these approaches are community-defined evidence (CDE) and practice-based evidence (PBE). These two similar approaches broaden the concept of what constitutes evidence beyond controlled trial empiricism to include evidence that reflects effectiveness as perceived and experienced by family members, youth, providers and/or other community members. CDE is defined as "a set of practices that communities have used

and determined to yield positive results as determined by community consensus over time and which may or may not have been measured empirically but have reached a level of acceptance by the community" (Martinez, 2008; Martinez, Callejas, & Hernandez, 2010). The focus here is on PBE, for which a definitive description has not been reached, but for which Chorpita (2010) suggests the following definition: "local aggregate evidence collected from individual client histories to learn what is happening in community practice."

PBE holds promise for expanding the realm of interventions that have objective support based in community values. However the construct needs more rigorous definition and parameters. The increasing emphasis by researchers, family members, practitioners, and policy makers on translating science to practice through the development of effective interventions compels the field to understand and define PBE.

This issue brief addresses important issues associated with the emergence of PBE, with particular emphasis on

- the emergence of PBE as a construct,
- the role of PBE as part of an array of evidence-supported and evidence-informed practices,
- characteristics and dimensions that begin to define PBE more precisely,
- potential policy implications for the use of PBE in services/systems.

IN SEARCH OF "BEST PRACTICES": THE EMERGENCE OF PBE

The emergence of PBE was in many ways a response to the emergence of EBPs. In the last decade, researchers and practitioners in medicine and behavioral health recognized the critical importance of the use of service interventions that have established research evidence of their



efficacy. Manderscheid's (2006) assertion that the importance of EBPs to ensure the quality of care for those in need of behavioral health care services has been widely supported and has found expression in statute and policy in many states and local communities.

The expectation associated with the proliferation of EBPs was that services of proven efficacy would be easily and readily adopted in the field to improve the quality of outcomes for service recipients. Unfortunately, it is now recognized that EBP interventions are not always easily or readily adopted, and that there are significant gaps in the translation of research evidence into programs in the field (Proctor et al., 2009; Urban & Trochim, 2009). The mere provision of an innovation, even one of proven value, is not sufficient to ensure that it is implemented (Wandersman et al., 2008), nor are all proven interventions appropriate for all communities in need of services. Researchers have found that the lack of participation of diverse communities in developing and testing of EBPs and the resultant limited degree of cultural relevance the outcomes may have for ethnic and racial communities is problematic in the application of EBPs (Isaacs et al., 2008; Miranda et al., 2005; Miranda, Nakamura, & Bernal, 2003; Rogler, 1999; Sue, 1998). Further, the emphasis on internal validity, a critical concern for the development of evidence-based research, has come at the expense of external validity and the effectiveness of interventions across populations (Baker, Brennan Ramirez, Claus, & Land, 2008; Green, 2008; Green & Glasgow, 2006; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001).¹

A 2009 ORCF Issue Brief (Lieberman et al., 2009) reviewed and summarized the EBP literature and practices. It supports the fact that EBPs are not consistently developed with or adapted for family members or diverse communities. A critical finding was that the most broadly effective and appropriate services are those that include the incorporation of scientific research (EBP), child and family experience and preference, and cultural knowledge and experience. Additionally, service-to-science models that include

adaptations for the populations served are vitally important in the provision of culturally and linguistically appropriate care for children, youth, and their families. While existing and emerging practices may not always meet the empirically based standards of an EBP, they may be equally effective in the context of the family's community and culture. These core issues have led to the emergence of PBEs as a complementary paradigm to reconciling EBPs with the diverse service needs and values of the community.

PBE has become widely used to address evidence that incorporates cultural norms or traditions of diverse communities. Isaacs, Huang, Hernandez, and Echo-Hawk (2005) define PBE as "a range of treatment approaches and supports that are derived from, and supportive of, the positive cultural attributes of the local society and traditions. Practice-based evidence services are accepted as effective by the local community, through community consensus, and address the therapeutic and healing needs of individuals and families from a culturally-specific framework." Isaacs and colleagues proposed that PBE practitioners need to draw upon the cultural strengths and context of the community, respectfully respond to local definitions of wellness and healing, and consistently incorporate this field-driven knowledge into all phases of treatment, including engagement, assessment, diagnosis, intervention, and aftercare.

The PBE paradigm suggests that practitioners in the field, families, communities, and diverse cultures serve a vital role in identifying optimum treatment for consumers (Co-Occurring Center for Excellence, 2006; Druss, 2005; Margison et al., 2000; Urban & Trochim, 2009). PBE can help identify both those persons for whom EBPs do and do not work, (Manderscheid, 2006) and those practices that fail to promote engagement or compliance (Walker & Bruns, 2006). The PBE perspective suggests that evidence supporting the utility, value, or worth of an intervention, program, or policy for the community can emerge from the practices, experiences, and expertise of family members, youth, consumers, professionals and members of the community. The emphasis in



PBE embraces consideration of the relevance of clinical interventions, the diversity of study populations, the diversity of practice settings, and the inclusion of a broad range of health outcomes (Horn & Gassaway, 2007).

There is general agreement that emergent PBE should be reconciled with EBP when identifying best practices for communities. The current literature endorses a collaborative process to do so, through which consumers, families, clinical professionals, and communities, can develop common agendas for the improvement of service outcomes (Baumbusch et al., 2008; Green, 2008; Hoagwood et al., 2001; McDonald & Viehbeck, 2007; Proctor, 2004; Rosenberg, 2009; Sullivan et al., 2005; Wandersman, 2003). The limitations of EBP, including the gaps in the research and the difficulty of adoption in local communities, along with the uncertainties in defining and operationalizing PBE underscore how the establishment of a collaborative process to understand and utilize both approaches appropriately is a major, but necessary, challenge for the improvement of services for children and youth (Manderscheid, 2006; Margison et al., 2000; Walker & Bruns, 2006).

PBE AS PART OF A RANGE OF EVIDENCE

In identifying the limitations and promise of both EBP and PBE, it is most useful to regard PBE as complementary to EBP. PBE refers to evidence of a different nature than that which is generated by controlled research, but which is often equally valid to the recipients of services, as it emerges from shared experience and expertise. Interventions grounded in PBE range from those practices that are ultimately validated by randomized controlled trials² (RCTs) to those that, while not yet subjected to rigorous empirical testing, appear to be effective based on the experience and observations of practitioners, family members, or entire communities.

Examples of effective community-derived and driven approaches may be found in the field of primary health care. Centuries-old practices from other cultures that are now gaining acceptance in mainstream healthcare such as yoga, meditation, and acupuncture first gained acceptance in the

community and within various cultural groups. Subsequently, scientific criteria were applied to these practices and they were identified as efficacious treatments. Similarly, social services often use practices that begin in grassroots community practice. Many community-based interventions that have not yielded empirical support through the application of an RCT may be widely accepted because the community perceives that they “work” and they are consistent with the values, principles, and needs of the clients in their respective communities. Some of these similarly become eventually identified as EBPs; others not. Big Brothers Big Sisters was essentially a PBE program that became widely adopted nationally, based on perceived value at the community level. When subsequently submitted to rigorous testing in randomized controlled trials, it was found to be efficacious at the EBP level. Healthy Drumming is a practice that has demonstrated effectiveness but has not been RCT tested.

These examples, summarized further below, are instances in which individuals have perceived and experienced success and effectiveness through the application of community-driven processes of validation. They are representative of the range of PBE and of the importance of its inclusion in an array of evidence that identifies interventions that work in providing behavioral health services for children, youth, and families.

CASE EXAMPLES

Type I: PBE to EBP

Big Brothers Big Sisters. The origins of BBBS can be traced to two independent efforts in New York in the early 1900s. One (Big Brothers) was initiated by a New York City court clerk in 1904 to match adults with boys processed through his court. At about the same time, members of the Ladies of Charity began working with girls who had become involved in the New York Children’s Court in what would become Catholic Big Sisters. Ultimately, these efforts merged in 1977 to become Big Brothers Big Sisters of America (Big Brothers Big Sisters, 2010). BBBS has grown to the point where in 2008 it served 255,000 youths at 470 agencies nationwide (Coalition for Evidence-Based Policy, 2011). BBBS relied

primarily on practice-based evidence to support its meteoric growth until the early 1990s when a large, sophisticated, multi-site randomized controlled trial was conducted. This study found that youth assigned to BBBS had significantly better outcomes in terms of drug use, school attendance, and parental relationships (among others) than control youth (Grossman & Tierney, 1998). Given the strength of this evidence, BBBS is now categorized as an “exemplary” program by the Office of Juvenile Justice and Delinquency Prevention (n.d.).

Type II: PBE–No RCT (to date)

Healthy Drumming. Healthy Drumming is a PBE that is a holistic approach designed to decrease stress and anxiety by activating and bridging physiological, psychological, and spiritual schemas. The practice was developed at the Instituto Familiar de la Raza in San Francisco, California. Healthy Drumming is based on traditional healing techniques, indigenous medicine, scientific applications, and psychological strategies. It uses clinical assessment to evaluate cultural variables and integrate worldview, beliefs, and customs into the analysis and interpretation of outcome data from psychometric inventories and clinical biofeedback. The practice uses and integrates clinical biofeedback to assess changes in cardiac and respiratory systems, and standardized tools to assess anxiety, arousal, hyper-vigilance, and emotional reactivity, all of which have been shown to decrease. Surveys, personal testimonials, and community feedback are also part of its evaluation of effectiveness (Nunez, 2010). No RCT efforts have been undertaken for this PBE.

CHARACTERISTICS AND DIMENSIONS OF PBE

While EBPs often effectively meet the needs of children, youth, and families in communities, PBE is an important complementary paradigm for developing practices that are culturally relevant and responsive to the needs of specific communities. Consensual knowledge or understanding, however, can be inaccurate and/or imprecise. The challenge in the development of PBE, therefore, is to define the intervention precisely and accurately, the population of focus

for whom it is effective, and the nature of evidence that supports its use.

Since PBE has attracted widespread attention and has been used in a variety of contexts, practical guidance and examples of the appropriate limits of PBE may be helpful in describing its conceptual parameters. The absence to date of consensual parameters for defining PBE makes it difficult to identify PBE interventions as viable and/or fundable, thereby reducing the opportunity for their implementation for appropriate populations. Accordingly, it is essential to provide a rigorous explanation and definition of PBE in order to promote appropriate application and use.

In defining PBE as a useful and effective category of interventions, characteristics and conditions emerge, either alone or in combination, that delineate types of PBE practices. These may be categorized as (a) community valued, (b) culturally and socially embedded, (c) heretofore unaddressed community/population conditions, and (d) emergent issues. These typologies are further articulated below.

- *Practices that have been implemented in communities, have emerged locally, are accepted with general consensus and are **considered successful by the community**.* Based upon experience and practice they are believed to be effective but have not yet been subjected to empirical testing. These practices may currently lack a developed theoretical foundation and funding may be unavailable to demonstrate efficacy in a controlled study that would meet EBP standards.
- *Practices that are **embedded in the cultural and social conditions** of the community.* These address relevant and important outcomes as defined by the community, even if they are different from traditional outcomes associated with similar EBPs.
- *Practices that **address populations, circumstances, or conditions for which EBPs have not been developed**, and for which there is **community consensus**.* This would include arenas in which science is currently silent or studies were inconclusive, populations with multiple or special needs, or service issues that reflect complexities in service populations.



- *Practices that address emergent issues or concerns that have not been addressed by traditional empirical science.* These issues or concerns may include disparities in research and services that have yet to be studied.

For practices that fall within these categories, it is important to establish a framework from which to identify their evidentiary basis. The following set of dimensions describes the domains that can be used to begin to investigate and establish validity.

- *The locus of development.* A description of the circumstances under which the practice evolved, including the characteristics of the community, the nature of problems or issues addressed, associated resources, the intent or purpose of the practice, and supporting theory.
- *The source of data.* Identification of how and where the data are/were generated, such as community-collected outcomes or descriptions of populations, data from local schools, self-reported data from individuals participating in the PBE, etc.
- *The nature of the evidence.* A definition of data points and indicators and of the process through which the evidence is collected and interpreted.
- *The population(s) of focus.* A clear description of all aspects of the population(s) for whom the practice is intended, including demographics such as age, race/ethnicity, and gender.
- *The practice/model fidelity criteria.* A delineation of the specifications that can or must be used for replication purposes.
- *The method and range of dissemination efforts.* A discussion of the applicability of the practice to other populations and settings and how it will be introduced and distributed appropriately.

Examination of these practice/evidence dimensions will enhance understanding of PBE, providing credibility to practices that work, and augment the practice base instituted through EBP. Further, clearly determining the scope, intent, and dimensions of PBE will operationalize the construct, address concerns that the evolving paradigm does not have sufficient scientific basis, and establish it as a viable complement to EBP. Importantly, this work could help establish PBE models as programs that can satisfy state and local evidentiary requirements for funding, while

increasing the availability and range of effective services for children, youth, and families.

POLICY IMPLICATIONS

It is important to ensure that interventions, programs, and practices used for children and youth with serious emotional and behavioral challenges and their families demonstrate evidence in support of their effectiveness. Effectiveness should include outcomes identified by youth and families and utilize a family-driven and youth-guided approach.

PBE offers a bottom-up, field-demonstrated, effective approach that expands, enhances, and enriches the growing repertoire of effective practice models. The ORCF recommends that the following steps be pursued to expand the current range of evidence-based interventions and address the specific needs of children, youth, and families in local communities:

- Adopt the definitional framework of PBE as articulated in this brief for behavioral health with agreement from family members, youth, providers, community members, policy makers, researchers, and funders.
- Educate policy makers and funders to recognize PBE models identified through the application of clearly defined criteria as legitimate and important intervention/practices that can be funded.
- Develop mechanisms to identify programs and practices based on PBE that could be empirically tested with culturally appropriate methods. Provide resources to these programs to build empirical evidence.
- Continue and expand PBE research, such as that currently in progress through the work of the Community Defined Evidence Project (CDEP). A key aim of this research should be to define the criteria that define the “essential elements” of evidence that local and diverse communities deem successful.

The ORCF values the dialogue that has occurred about this important issue and the efforts being undertaken to further articulate the array of evidence. The ORCF will continue to contribute to this ongoing dialogue as developments emerge within the field. Members of the ORCF are available to discuss and expand upon these ideas.

ENDNOTES

¹ Efficacy studies refer to trials conducted under ideal laboratory conditions to test whether a specific intervention has a desired effect on a specific condition. Effectiveness studies refer to trials that test whether an intervention works in real-world communities (APA, 2005). Internal validity refers to the ability to assert that a program has caused measured results (to a certain degree), in the face of plausible potential alternative explanations. Common threats to internal validity include history, maturation, mortality, selection bias, regression artifacts, and diffusion. External validity refers to the ability to generalize conclusions about a program to future or different conditions. Threats to external validity include selection and program interaction, setting and program interaction, and history and program interaction (Center for Disease Control and Prevention, 2006).

² Randomized controlled trials (RCTs) “are quantitative, comparative, controlled experiments in which investigators study two or more interventions in a series of individuals who receive them in random order” (<http://www.medterms.com/script/main/art.asp?articlekey=39532>).).

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