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Evidence-Informed Practice in Systems of Care: Misconceptions and Facts

Introduction

Federal, state, and foundation funding sources increasingly mandate the use of evidence-based practices (EBPs). However, confusion and uncertainty limit response to these mandates in systems of care. These two papers briefly present fundamental facts on the rationale for using EBPs within behavioral health service systems. The first paper clarifies definitions while addressing notable misconceptions about EBPs. The second addresses the critical importance of implementation factors that can positively or negatively affect EBP outcomes. Together, these papers offer examples, strategies, frameworks and tools for selecting, funding, implementing, improving, and sustaining evidence-based and promising practices within systems of care.

Why Implement Proven Practices?

The most compelling reason for implementing EBPs (i.e. proven practices) in systems of care is that they have the greatest likelihood of efficiently producing positive effects than do unproven, "usual care" interventions (Weisz, Eckshtain, Ugueto, Hawley, & Jensen-Doss, 2013). Because proven practices are rigorously evaluated and refined, service providers can be confident, that if implemented with fidelity in a well-supported organizational context, they can be effective. Further, systems of care that utilize integrated and well-implemented EBPs are more likely to demonstrate:

- Improved behavioral health outcomes achieved in a cost effective manner;
- Transparent accountability to consumers, staff, and funding sources; and
- Clearly informed implementation decisions regarding staff selection criteria, training, coaching, and fidelity assessment.

Communities embracing a "systems of care" approach can leverage the opportunities in the Affordable Care Act and the accompanying advocacy for mental health parity by offering a thoughtfully-selected and well implemented array of proven practices to address specific behavioral health care needs in the populations they serve.

> "…true parity may require that the mental health community take steps to demonstrate that they provide the most evidence-based treatments with measures of both rigor and fidelity. We will need standardized reporting systems. And we will need a detailed definition for each evidence-based intervention, including not only dose and duration but indication." Thomas Insel, Director, National Institute of Mental Health – Director's Blog: "The Paradox of Parity" – May 30, 2014

Defining Evidence-Based, Research-Based, and Promising Practices

Defining Evidence-Based, Research-Based, and Promising Practices
The Washington State Institute for Public Policy (WSIPP) and the University of Washington Evidence-Based Practices Institute (EBPI) identify an evidence-based psychosocial intervention (EBP) as having these primary elements (WSIPP & EBPI, 2012):
- Multiple randomized or statistically-controlled evaluations, or one large multiple-site randomized or statistically-controlled evaluation that demonstrates sustained improvements.[1]
- Practices engage an ethnically heterogeneous sample (at least 32% non-white);
- Practice steps are clearly articulated for easy replication; and
- Cost-benefit is reported.

All definitions contain trade-offs. However this definition is more expansive and inclusive of factors influential for policy decisions, and therefore quite useful. It includes systematic research but does not limit the definition of evidence to multiple randomized controlled trials or require follow-up assessment. These differences make the WSIPP &EBPI definition unique from other highly regarded available definitions, such as Blueprints For Healthy Youth Development (e.g., Blueprintsprograms.com).
It also adds two considerations relevant to policy-makers and the public:
- Cost-savings: Important because some proven practices are more expensive than the cost savings from anticipated clinical, educational, or system-level outcomes (e.g., Families and Schools Together; WSIPP & EBPI, 2014).
- Heterogeneity of population studied: The WSIPP definition addresses concerns that some studies did not examine participants of color (Sue, Zane, Nagayama Hall & Berger, 2009).

Emphasis on ensuring representative inclusion in research studies is now part of the National Institutes of Health (NIH) reporting requirements.

What is Research-Based or Promising Practices?

It may be challenging for some practice models to meet the WSIPP/EBPI definition of EBP. This is often true for smaller, newer programs, and for practices developed outside university settings. When there is less rigorous research but there are indications a practice model has, or may likely have, favorable results, the category of *research-based practice (RBP)* or *promising practice* is appropriate (WSIPP/EBPI, 2012):

- A **research-based practice (RBP**) must include one randomized or statistically-controlled evaluation, OR indicate that there were adequate studies, but due to lack of heterogeneity or cost-benefit, the program does not meet the full criteria for "evidence-based."

- A **promising practice** shows potential for meeting EBP or RBP criteria but has not been adequately studied.

Misconceptions and Facts about EBP's
There are several notable misconceptions that may lessen enthusiasm and limit adoption of EBPs.

Misconception: Systems of care require significant case management responsibilities for which there are no evidence-based practices.
Fact: There are at least two evidence-based case management practice models: Assertive Case Management and Solution Based Casework. Both emphasize collaborative, culturally competent engagement of client/family voice in shaping assessments, planning and interventions, as well as in evaluation of services.

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[1] In this report no criteria are provided for how long improvements must be sustained.

Also, there is a growing body of evidence supporting wraparound care coordination as a promising or research-based practice.

Misconception: EBPs have not been evaluated with diverse populations.

Fact: In the past decade, there has been significant progress in understanding how EBPs work for a variety of populations. Many EBPs have achieved excellent results with a variety of population demographics, and with more than a single problem focus. Though greater attention to these is warranted, in some cases cultural adaptations have been developed and tested, and many program developers will work with a provider agency to make and evaluate adaptations to a practice model.

Misconception: EBPs limit clinician creativity and client choice.

Fact: Proven practice models actively engage youth and family voice in assessment, planning, and interventions. Clinician skills and creativity are still necessary to engage client voice and choice in the proven steps of any practice models.

Misconception: Some funding sources require the use of EBP, but direct service providers are not "comfortable" if resources are committed to a single model.

Fact: There is rich literature on how service providers can approach engagement, assessment, planning, interventions and evaluation of EBPs without an agency selecting one single practice model. For example, in Houston's Children's Mental Health Initiative grant site, elements from Solution-Based Casework (use of timelines in thinking through the family life cycle), from Team Decision Making (collaborative development of team goals and guidelines), and from Multi-Systemic Therapy (MST) (use of fit circles for multi-systemic assessment to better focus behavioral interventions) were integrated and applied to improve fidelity to the wraparound approach above the national mean and to improve academic and behavioral outcomes (Bertram, Schaffer, & Charnin, 2014). Some authors suggest a common elements approach (Barth, et al, 2011), in which practitioners learn similar elements from promising practices for use in different phases of service delivery. As another example, Motivational Interviewing is a proven practice frequently used in engagement, assessment, and planning with consumers, that complements the application of other treatments such as Trauma-Focused Cognitive Behavioral Therapy in planning and intervention phases of service delivery.

Misconception: EBPs focus on a single domain of behavioral health concerns.

Fact: Most EBPs can achieve positive outcomes across multiple domains such as school attendance and performance, living at home, staying out of the juvenile justice system, improved behavioral self-regulation and parent-child relationships. In addition, there is evidence that behavioral parenting interventions (described below) can improve parental depression. Researchers are increasingly evaluating the impacts of treatments on functioning more broadly.

Misconception: EBPs require an investment in expensive ongoing training & technical assistance from developer(s) of particular practice models.

Fact: Some EBPs, like MST, focus on more complex behavioral problems and do require ongoing technical and clinical support; others however, can be integrated into an agency's quality assurance activities (see second paper on implementation frameworks). In addition, while the initial investment for some EBPs may seem more costly than less proven practices, these EBPs have repeatedly produced long-term cost savings. Additional costs for proven practices typically include program development and ongoing monitoring of implementation fidelity. For more detailed information, sample resources are provided at the end of this paper with links to sites such as the Washington State Institute for Public Policy and Blueprints for Healthy Youth Development, that provide cost-benefit analyses of EBP models.

Misconception: Definitions of "evidence-based" are too restrictive.

Fact: The field has matured. While there is no universally adopted definition of EBP, there are recognized gradations of evidence that can help providers and practitioners explore proven practices. All practices can be plotted against a continuum from 'no evidence' to 'multiple randomized clinical trials.'

Misconception: Developing staff knowledge and skills in an EBP will make them more marketable and contribute to staff turnover.

Fact: While many organizational factors influence staff turnover, in a state children's service system, EBP implementation that includes fidelity monitoring through supportive consultation predicts lower staff turnover rates (Aarons, Sommerfeld, Hecht, Silovsky, & Chaffin, 2009).

Practices, Populations, and Behaviors of Concern

There are many evidence-based, research-based or promising practices that address the most common emotional and behavioral disorders, including anxiety, grief, depression, ADHD, traumatic stress, conduct, and substance abuse disorders. Practices addressing these emotional and behavioral concerns vary and can be selected by several domains including: Developmental focus (appropriate ages for treatment); intensity of behavioral concern; service location (office, community, or home based), and modality (individual, family, and group). In a comprehensive system of care, evidence-based, research-based or promising practices should be available across all these domains.

The following hypothetical example illustrates a possible service array consisting of evidence-based and research-based services that has the potential to address most child, youth, and family behavioral health concerns. No single agency can possibly provide each of these services. However, careful consideration by leaders from systems of care governance groups can produce a research-supported service array for an identified geographic area. In this hypothetical example of a strategy to comprehensively provide an evidence-based system of care, a mix of programs is available in outpatient and community-based service settings. Note that no one agency could or should be responsible for the entire array of services. Service availability should be planfully considered at the broader community-level.

Cognitive behavioral therapies are most effective for internalizing disorders such as anxiety and depression. In this sample service array, Coping Cat is available to young children who have anxiety or depression (Kendall, 1994). This intervention is specifically tailored to meet the needs of younger children who may not be sophisticated enough to benefit from more traditional forms of cognitive behavioral therapy. Older children and adolescents may be offered cognitive behavioral interventions specific to depression or anxiety (e.g., Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999; Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008). Interpersonal Treatment for Adolescents (ITP-A) is an evidence-based option tailored to the needs of this age group in the treatment of depression. ITP-A is a structured intervention lasting approximately 12 weeks and is specifically designed to address depression within an adolescent context (Mufson, Weissman, Moreau, et al., 1999).

For acting out behaviors (i.e., conduct problems) in younger children (under 8), behavioral parenting interventions appear to have the most support. Several behavioral parent training programs have been shown to be highly effective, including the Triple P-Positive Parenting Program (Sanders, Markie-Dadds, Tully & Bor, 2000), Incredible Years (Webster-Stratton, Reid, & Stoolmiller, 2008), and Parent-Child Interaction Therapy (PCIT; Eyberg, Boggs, & Algina, 1995). Each approach has unique features that may be preferred in a particular community. For example, Triple P and the Incredible Years have more of a population-health approach to treatment, offering varying levels of support depending on family and service setting need: Triple P has options for primary care; Incredible Years has school-based options. Parent-Child Interaction Therapy may be delivered in a clinic or in-home setting and uses 'bug-in-the-ear' technology to provide coaching support to parents; it is available in Latino and Native American adaptations. For adolescents, a teen version of Triple P could be an option for more mild behavior problems such as adjustment or oppositional-defiant disorders. However, for youth with more significant behavior problems (e.g. who have been or are at risk for juvenile justice system involvement or who have a history of substance abuse), a treatment such as MST (Henggeler, et al., 2009) or Functional Family Therapy (Alexander & Robbins, 2011) is warranted.

Trauma-informed systems of care should include treatment options for symptoms of traumatic stress. A well-researched EBP for children and youth experiencing post-traumatic stress disorder or symptoms associated with traumatic grief is Trauma-Focused Cognitive Behavioral Therapy (Cohen, Mannarino, Berliner, &

Deblinger, 2000). This treatment modality, with some modifications, can be effective for children as young as age 3 through adolescence.

There are modular- or components-based EBPs that comprehensively address anxiety, depression, conduct problems and trauma. Some communities may find these approaches to be a prudent and economical strategy to address the majority of mental health concerns for children. Examples of these interventions include Modular Approach to Therapy for Children with Anxiety Depression Trauma or Conduct problems (Chorpita & Weisz, 2009) and "Cognitive Behavioral Therapy+" (Dorsey et al., 2014).

Although the above-mentioned treatments are highly effective for children and youth with mild to moderately severe symptoms across a range of disorders, a smaller high need, high cost group of children and youth require a more concentrated array of supports or services. Wraparound (Suter & Bruns, 2009), Solution-Based Casework (Antle, Barbee, Christensen, & Martin, 2008), and Assertive Case Management (Miller, Krumweid, & Ward, 1988) all provide a research-informed options to help coordinate the variety of services needed to meet the needs of children and adolescents with more significant treatment requirements. For adolescents in this hypothetical sample, Dialectical Behavior Therapy (DBT) (Linehan, Comtois, Murray et al., 2006) is included in the service array because this treatment is uniquely effective for treatment of suicidal behaviors (cutting, ideation, attempts), and is an option frequently employed in both residential and community-based programs.

Treatments for substance use by children age twelve or younger include behavior parent training (see above for options), and other treatments such as Brief Strategic Family Therapy, MST, and Functional Family Therapy for adolescents. Brief Strategic Family Therapy is highlighted as an example of an EBP that has specifically demonstrated effectiveness with Hispanic and African American populations (Santisteban, Coatsworth, Perez-Vidal, Mitrani, Jean-Gilles, & Szapocznik, 1997). Functional Family Therapy and Multidimensional Family Therapy are two family-therapy approaches that have significant evidence for treatment of substance use disorders in adolescents (Waldron, & Turner, 2008).

Not included in this particular example are treatments for more rare disorders of childhood and adolescence, such as bipolar disorder, early onset psychosis, or severe eating disorders, although the extent to which communities are prepared to address the needs of these relatively uncommon disorders should be evaluated also. Here, depicted graphically, is this hypothetical example of a multi-agency systems of care suite of evidence-based, research informed programs:

Child Age	Anxiety	Depression	Conduct Problems	Trauma	Complex needs	Substance abuse
3-8	Coping Cat		Positive Parenting Program	Trauma-focused Cognitive Behavioral Therapy	Wraparound	Behavioral Parent training
8-12	Cognitive Behavioral Therapy for anxiety	Cognitive Behavioral Therapy for depression	Incredible Years Parent-Child Interaction Therapy		Solution-Based Casework Assertive Case Management	Brief Strategic Family Therapy
12-17		Interpersonal Treatment for Adolescents	MST		Dialectical Behavior Therapy	Multi-dimensional family therapy Functional Family Therapy

In this example, a variety of needs are addressed. There are options across the age spectrum for the most common emotional and behavioral disorders as well as the most severe. Many interventions can be delivered as home-based interventions; many have been evaluated with culturally diverse study samples and have robust findings. A system such as this is highly likely to meet the vast majority of service needs and be responsive to the local context. Some of the options provided (e.g., the multiple behavioral parenting programs) allow for local practitioner choice while ensuring high-quality services.

Summary

In this paper, definitional and practice-related concerns associated with providing an evidence-based approach to a system of care were presented. Several misconceptions were addressed, and examples of how programs and practices could work on the local level to comprehensively support the mental health and well-being of children and youth were identified. It is important, however, that adoption of these practices occurs within implementation frameworks that supportively monitor fidelity, continuous quality improvement and outcomes. Implementation frameworks and financing will be examined in the next paper.

Sample Resources

Resource & Website	Advantages	Disadvantages
SAMHSA's National Registry of Evidence-based programs and practices http://www.nrepp.samhsa.gov/	Comprehensive list of interventions; Many research references; Standardized ratings across multiple programs	Included programs do not always meet EBP or RBP criteria
Blueprints http://www.blueprintsprograms.com/	More highly rigorous inclusion criteria; Includes some information on cost-benefit	Limited number of programs with smaller number of focus areas
Washington State Institute for Public Policy http://wsipp.wa.gov	Clear definitional criteria; Interventions listed along public system domains (e.g. child welfare, juvenile justice, mental health)	Website is a bit clunky and difficult to navigate; No information about implementation or readiness for dissemination
California Evidence-Based Clearinghouse for Child Welfare http://www.cebc4cw.org/	Available information on a variety of topics related to EBP; Clear inclusion criteria; Provides scientific ratings to enable comparisons across programs; Contains ample information to facilitate early implementation planning	Programs evaluated through a child welfare lens

PracticeWise common components https://www.practicewise.com/	One-stop shop for information related to common elements of EBPs; Clinician tools; Web-based dashboard to track clinical progress	Subscription fee

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