BRIEF

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Evidence-Informed Practice in Systems of Care: Frameworks and Funding for Effective Services

Organizations adopting an evidence-based, research-based, or promising practice must systematically support its implementation. When actively applied, three frameworks identified by the National Implementation Research Network (NIRN) support effective service delivery: intervention components, implementation drivers, and stages of implementation (Bertram, Blase, & Fixen, 2014; Fixsen, et al., 2005). In this paper, we briefly review these frameworks, and offer examples from three states that integrated and financed evidence based practices (EBPs).

Intervention Components

Careful consideration of the following components will provide a sound foundation for exploration, purposeful selection and systematic implementation of an evidence-based or promising practice model.

Population characteristics. What are the behavioral, contextual, cultural, socioeconomic, and other factors that suggest a good match with the practice model? What research supports this match?

Model definition. What are the elements, activities, participants, and phases of service delivery? Who should be engaged? How and when? What activities or elements characterize engagement, assessment, planning, interventions, and evaluation?

Theory base(s). What is the rationale for engaging these participants in the elements, activities, and phases of service delivery? This rationale is most often based in theories of what shapes human behavior and/or in stage theories of individual or family development. There may be multiple theory bases, but they must be consistent or similar.

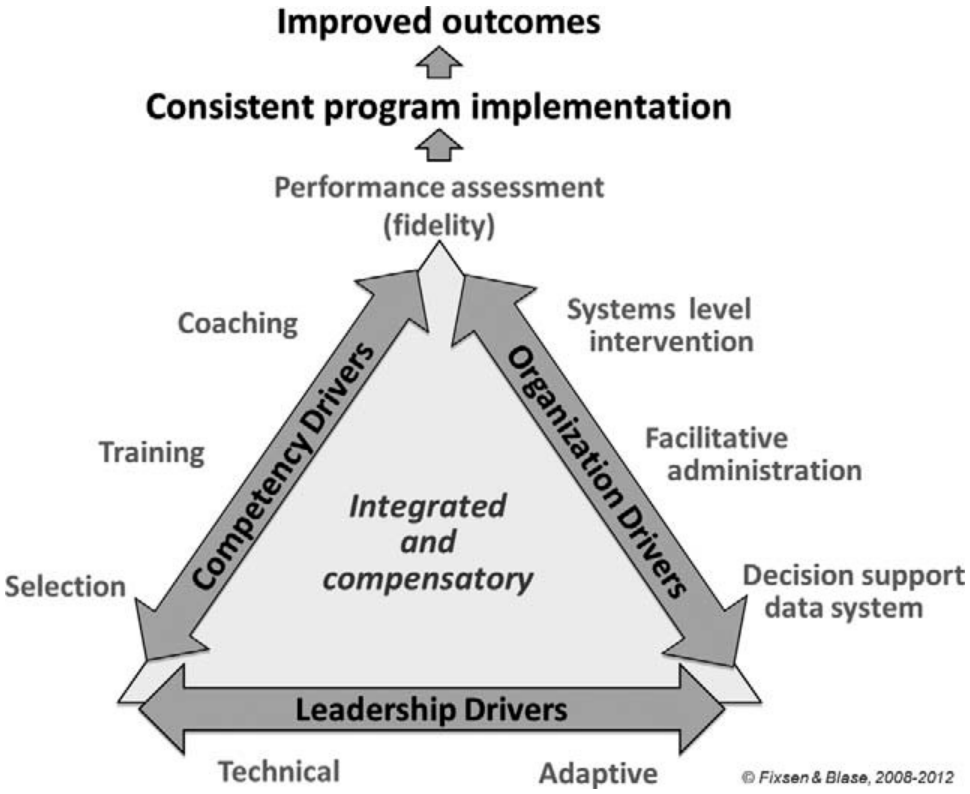
Theory of change. When delivered with fidelity, how do these participants, elements, activities and phases of service delivery contribute to improved consumer outcomes?

Alternative practice models. Based upon careful consideration of these components, what is the rationale for not using other practice models?

Implementation drivers

Selecting an evidence-based or promising practice does not ensure improved outcomes for consumers. Organizations must also adjust how they develop and support delivery of that practice model. Without careful consideration of implementation, it is unlikely that positive and sustainable results will be realized, as depicted in the figure below (Bertram, Blase, & Fixsen, 2014):

When purposefully adjusted to support delivery of an evidence-based or promising practice, implementation drivers help support a sustainable program that achieves improved population outcomes (Bertram, Blase, et al., 2011; Blase, Van Dyke, Fixsen, & Bailey, 2012). Competency drivers develop practitioner competence and confidence by attending to staff selection, training, coaching, and performance assessment (fidelity). Organization drivers provide a supportive implementation environment through administrative consideration and adjustments in data systems, funding, policies, and procedures to ensure that the competency drivers are accessible and effective. Finally, both complex and technical challenges will emerge that require different strategies and expertise (leadership drivers) to establish, re-purpose, adjust, and monitor the competency and organization drivers throughout implementation stages (Bertram, Blase, et al., 2011; Heifetz & Laurie, 1997).



Staff selection. Though funding sources may require licensed staff, selection criteria should also seek knowledge, skills, or ability relevant to practice model and client population. These characteristics are identified from the intervention components and are often available from treatment developers. Willingness and ability to learn from coaching is always a criterion.

Training. Well-informed staff members receive training in population characteristics, in agency rationale for choosing the evidence-based or promising practice, in the participants, elements, activities, phases, and the theory base(s) of that practice model, and in its theory of change. Opportunities to practice and to

receive supportive, constructive feedback in a safe environment are essential. Pre- and post- training tests provide baseline information for subsequent coaching toward further development of staff confidence and competence.

Some agencies are concerned about the impact of staff turnover on their investment in EBPs. Many factors influence staff turnover when organizations adopt new practice models. However, in places where EBPs are well implemented and include supportive consultation, staff retention is higher compared with programs that do not have EBP training (Aarons et al., 2009).

Coaching. Training alone will not produce competent, confident staff. Coaches must be carefully selected, trained, coached, and held accountable for staff development. There should be a written plan describing coaching formats, frequency, and focus that data systems can monitor. Coaching is most effective when it includes multiple forms of data and some form of direct observation to accurately assess and develop practitioner skill and judgment.

Performance assessment. Effective, sustainable implementation examines two types of model fidelity. The first is practitioner performance with consumers (i.e. did the consumer receive the intended practice model?). The second type is implementation fidelity. This reflects how well the competency drivers of staff selection, training, and coaching are operating. In light of consumer outcome data, agency administrators should regularly monitor both types of performance assessment data.

Facilitative administration. Agency administrators must be proactive. They should work back from desired outcomes to facilitate organizational adjustments that will produce competent and confident staff capable of delivering the evidence-based or promising practice with fidelity. Competency drivers must be adjusted. This requires adjustment of agency policies and procedures including caseloads, coach-practitioner ratio, and data systems.

Decision support data systems. Agency administrators need model-specific data to guide adjustments to implementation drivers for quality improvement and program sustainability. Data systems should provide timely fidelity information for correlation with outcomes data.

Systems level interventions. Practice fidelity, population outcomes, and program sustainability may be influenced by the alignment of federal, state, organization, and community systems. A vigilant facilitative administration assesses systems-level factors influencing fidelity and outcomes to intervene in support of the evidence-based or promising practice.

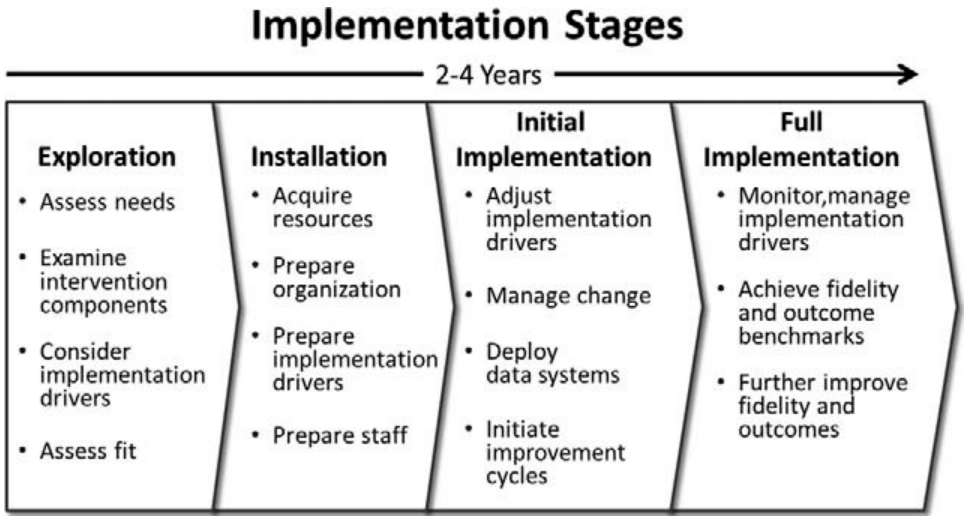
Technical leadership. Administrators should apply technical leadership strategies when there is greater certainty and agreement about the implementation challenge and the correct course of action. In such situations more traditional management approaches that focus on a single point of accountability with clearly understood and accepted processes will produce reliable outcomes (Bertram, Blase, & Fixsen, 2014; Daly & Chrispeels, 2008).

Adaptive leadership. When there is less certainty and agreement about the implementation challenge or solution, administrators should apply adaptive leadership strategies. Complex conditions may require an agency to convene groups that work toward a common understanding of the problem and then develop consensus-based solutions (Daly & Chrispeels, 2008). Coaching, facilitative administration, and systems-level interventions are more likely to require adaptive forms of leadership (Bertram, Blase, & Fixsen, 2014).

Stages of Implementation Framework

Implementation is not an event but a four-stage process of carefully considered organizational adjustments that focus upon practice sustainability and fidelity (Bertram, Blase, et al., 2011; Fixsen, Blase, Naoom, & Wallace, 2009). It is critical to provide ample time and resources to support implementation. Poorly

implemented programs are unlikely to achieve the promise of EBPs, while well-implemented programs have the potential to fully realize the benefits and sustain them for years to come.



Exploration. Careful consideration of the fit between funding, organization, and community resources, the intervention components of evidence-based or promising practice models, and desired outcomes, characterize this stage. Proactive adjustments reap great benefits, while not making time and effort to fully explore adoption or adaptation of a practice model will amplify future challenges as attempts are made to install and bring it to scale (Bertram, Blase, et al., 2011).

Installation. In this instrumental stage, competency drivers and organization drivers are adjusted and activated using appropriate leadership strategies. Model-specific criteria for staff selection, training, and coaching should be defined and integrated with data systems, policies, and procedural protocols that support fidelity. If other systems compromise implementation fidelity, then inter-systems protocols should be created through purposeful administrative intervention (Bertram, Blase, & Fixsen, 2014).

Initial Implementation. During this stage, the excitement and anticipation of new ways of providing service meets human inertia, fear of change, and investment in the status quo. This is an awkward period of high expectations, challenges, and frustrations. Agencies must learn from mistakes and address challenges systematically and systemically rather than seeking technical solutions to each challenge in isolation from other concerns and challenges. Steady leadership must normalize challenges while providing increased coaching and support through rapid, data-informed problem solving. It is beneficial to begin implementation on a small scale in a transformation zone, and then as implementation challenges are understood and addressed, scale-up to provide the new evidence-based or promising practice (Bertram, Blase, et al., 2011).

Full Implementation. Full implementation occurs when most practitioners are routinely providing the evidence-based or promising practice with good fidelity and are achieving targeted outcomes. Implementation drivers are fully installed and systematically monitored for quality improvement fidelity. The time required to pass through the awkward stage of initial implementation to full implementation will vary from setting to setting and practice to practice (Bertram, Blase, & Fixsen, 2014).

When model-specific implementation drivers are established, tested, and adjusted during installation and initial implementation stages, full implementation that achieves improved population outcomes with fidelity in a sustainable manner is more likely to occur. When an agency attempts to move to full implementation without developing or repurposing and working through the framework of implementation drivers, program services are inefficient, poorly executed, ineffective, or are not sustained. (Bertram, Blase, et al., 2011).

Financing

Evidence-based, research-based, or promising practices will have diminished impact if funding sources do not support full implementation of the practice model. During the exploration and adoption stage of implementation, organizations must help funding sources understand the practice model, the evidence supporting its effectiveness, and the implementation support required to deliver it. Examples from three states are presented below.

New Mexico: Multisystemic Therapy

In 2000, instead of sending youth to institutional facilities, the Children, Youth and Families Department (CYFD) chose to provide Multi-systemic Therapy (MST) for seriously delinquent youth throughout New Mexico. A residential facility was closed to provide a beginning source of funds while also eliminating an ineffective service model. Mental health block grant funds reimbursed agencies for start-up costs that included adjustment to program caseloads and policies, as well as staff selection, training, coaching, data systems, and licensing fees. New Mexico's Medicaid reimbursement rate was adjusted to absorb the cost of non-reimbursable services such as required training and consultation that previously could not be directly billed to Medicaid. A committee comprised of CYFD and MST provider agencies, which conducts bimonthly evaluation of costs, program fidelity, and client outcomes was organized. The committee is empowered to make necessary adjustments to funding direct service and program implementation. Thus, MST has been institutionalized into the continuum of care available in most areas of New Mexico.

The most recent annual evaluation points out that over the past nine years:

- The 4,016 youth who received and completed MST showed positive changes in every outcome area studied, including legal, mental health and substance abuse problems, remaining at-home, and instrumental indicators of youth and family functioning. Follow-up calls to caregivers demonstrated maintenance of these gains 12 months post-discharge.
- Furthermore, a cost analysis utilizing Medicaid-covered behavioral health claims for over 1,800 youth demonstrated an average savings of almost $6,500 per youth.

California: EBP Selection and Implementation

Since 2002, the California Institute for Behavioral Health Solutions (CIBHS) has assisted mental health, juvenile justice, and child welfare organizations in implementing a number of EBPs including Multidimensional Treatment Foster Care, Functional Family Therapy, Multi-Dimensional Family Therapy, Aggression Replacement Therapy, Multisystemic Therapy, and others. Informed by the evidence and by model-specific implementation requirements, Community Development Team (CDT) consultants helped organizations and counties conduct assessments to determine which practice models to implement. A combination of funding provided for program start-up costs including Title IV-E, Medicaid, Early Periodic Screening, Diagnosis, and Treatment (EPSDT), and other state and local financial resources. CIBHS provided the evidence and expertise to inform the CDT decision-making, successfully implementing and sustaining ten evidence-based programs in 228 private and public agencies in 44 of 58 California counties. Through this process, multi-county, peer-to-peer networks of EBP adopting organizations problem-solved implementation barriers with the assistance of two consultants.

Key stakeholders in each county from multiple levels (i.e., system leaders, agencies, practitioners and consumers) participated in: (a) considering information about specific EBPs and their fit with state and county needs and policies; (b) identifying barriers, planning for implementation, examining data for fidelity monitoring; and (c) providing guidance and feedback from adoption, through initial implementation, and fidelity monitoring to ensure sustainability and improved outcomes.

Two primary funding sources were applied. A federal Medicaid benefit, Early Periodic Screening, Diagnosis and Treatment (EPSDT), and the so-called “Millionaires’ Tax established by the Mental Health Services Act.

That legislation raises money for mental health services through a 1% tax on residents with annual incomes greater than one million dollars. Further, while EPSDT is a federal Medicaid benefit for all states, California elected to provide additional optional benefits including a full range of mental health services, case management, wraparound, and therapeutic behavioral services that provide one-to-one skill building interventions. Most organizations needed help understanding the eligibility criteria and what constituted a specialty mental health service reimbursable under EPSDT. In addition, CIBHS consultants developed cost and revenue calculators to help agencies estimate the true costs of implementing an evidence-based program. In 2012 with funding from the Zellerbach Foundation, CIBHS surveyed the landscape of EBPs in California to determine EBP impacts on the lives of children, youth, and families served by publicly funded and contracted agencies. Cost-benefit analyses were not conducted. Data were gathered from CIBHS supported service agencies implementing EBPs, and from other organizations with robust EBP implementation initiatives. The results are summarized in the table below (Marsenich, 2012).

Intervention	Treatment Focus &	Outcomes Achieved	Impact
Aggression Replacement Therapy (ART)	Age: 12-18 years Treatment Focus: Disruptive Disorders	Improved social skills Reduced Juvenile Justice recidivism Reduced impulsive & aggressive behavior	32 individual agencies 22 probation departments Estimate of youth served per year: 3,500
Depression Treatment Quality and Improvement (DTQI)	Age: 12-18 years and their caregivers Treatment Focus: Depression	Improved school performance Reduced depressive symptoms	12 provider agencies including county mental health Estimate of youth served per year: 250
Functional Family Therapy (FFT)	Age: 11-18 years and their caregivers Treatment Focus: Disruptive Disorders	Improved: Family functioning Reduced: · Juvenile Justice recidivism -Substance use · Prevention of further out-of-home placements	25 agencies including county mental health and probation departments Estimate of youth served per year: 1,200
Multisystemic Therapy (MST)	Age: 12-18 years and their families Treatment Focus: Disruptive Disorders	Improved: Family functioning Reduced: -Juvenile Justice recidivism -Out-of-home placement -Mental health problems	10 agencies including schools, county mental health and public health Estimate of youth served per year: 300
Multidimensional Treatment Foster Care (MTFC)	Age: 3-18 years and their caregivers Treatment Focus: Disruptive and emotional disorders	Improved: · School attendance and performance · Parenting skills -Permanency Reduced: -Juvenile justice recidivism -Placement disruption - Teenage pregnancies -Substance use	16 provider organizations including county operated programs Estimate of youth served per year: 130

Intervention	Treatment Focus &	Outcomes Achieved	Impact
Nurse Family Partnership (NFP)	Age: First-time, low-income mothers and their children Treatment Focus: prenatal an d infancy prevention program to improve health and well-being	Improved: · Maternal health and self sufficiency · School readiness Reduced: · Child maltreatment -Number of subsequent pregnancies and birth intervals	17 programs in 13 counties in public health and public school systems Estimate of mothers served per year: 9,700
Parent -Child Interaction Therapy (PCIT)	Age: 2-7 years & their caregivers Treatment Focus: Disruptive Disorders	Improved: -Parenting skills and attitudes Reduced: · Child behavior problems · Re-reports of physical child abuse	95 sites throughout California · Estimate of families served per year: 5,000
SAFECARE	Age: Families of children under 6 who are at risk for neglect or abuse; or after maltreatment reports Treatment Focus: home visiting parenting prevention program focusing on safety; child health and parent child/infant interaction	Improved: Parental safety and health skills Reduced: -Reoccurrence of child maltreatment	3 Central California, 2 Northern California and 2 Southern California sites Estimate of families served per year: 1,440
Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)	Age: 3-18 and their caregivers Treatment Focus: Emotional/behavioral problems from exposure to trauma	Improved: - General functioning -Positive Parenting Skills -Parent and child coping skills Reduced: -PTSD symptoms - Self-reported fear and anxiety · Depressive symptoms	200 agencies throughout the state Estimate of children served per year: 10,000
Triple P (Positive Parenting Program)	Age: 0-16 & and their caregivers Treatment Focus: Disruptive behavior	Improved: -Positive parenting practices Reduced: - Negative and disruptive child behaviors	65 agencies in 15 counties Estimate of children served per year : 1,000

Maryland

Through blended funding streams, including support from the Federal Centers for Medicare and Medicaid (CMS) 1915(c) Alternatives to Psychiatric Residential Treatment Facilities Demonstration (PRTF) Waiver, SAMHSA Comprehensive Community Mental Health Services for Children and their Families (System of Care) grants, Department of Juvenile Services contracts, Local Departments of Social Service contracts and Medicaid dollars, Maryland has implemented a systems of care approach that includes evidence-based, research-based and promising practices to improve outcomes for children and youth with significant behavioral health needs. Maryland's Children's Cabinet additionally finances a number of child-focused initiatives, including the statewide Care Management Entity (CME).

Since 2009, youth and their families have been served through Care Management Entities (CMEs) that provide intensive care coordination using the Wraparound care planning process as the means to divert or transition youth from more expensive out-of-home care. In a contract with the Governor's Office for Children more than $7.3 million was provided to support the regional CMEs. By 2012, this was centralized to a single statewide CME contract. Most recently, through a Medicaid State Plan Amendment and re-design of the Targeted Case Management service for children and adolescents, Maryland seeks to serve youth in their homes and communities using the Wraparound approach through new locally based CMEs, referred to as "Care Coordinating Organizations" (CCOs).

Two new opportunities are on the horizon for Maryland in 2015, first through the newly approved 1915(i) Medicaid State Plan Amendment which includes Functional Family Therapy as an intensive in-home service and secondly through the Title IV-E Waiver demonstration project that allows the state child welfare agency to flexibly utilize its IV-E dollars to improve practice, reduce the number of out of home placements and better support families at risk of entry into the child welfare system by enhancing the evidence-based practice service array.

Seeking to improve outcomes, reduce the reliance on out of home care and reduce costs, Maryland also is implementing select evidence-based practices for juvenile offenders, including Multisystemic Therapy (MST), Functional Family Therapy (FFT), Brief Strategic Family Therapy (BSFT) and Multi-Dimensional Treatment Foster Care (MTFC). Each of these EBPs is also supported by additional funding sources including Local Departments of Social Services (LDSS) dollars. According to annual report data, Maryland served nearly 1,000 youth in FY14 through these programs (FFT=700, MST=135, BSFT=79 and MTFC=20) with the majority of those completing service achieving positive outcomes at discharge (FFT = 92%, MST=91%, BSFT=94% and MTFC=67%). An analysis conducted in the first quarter of FY 2014 compared the cost per youth for MST and FFT with the cost of a group home placement. Maryland saved an average of $10,000 per youth using MST and $19,000 per youth using FFT. This cost benefit analysis included contracts to service providers and the implementation costs for sustaining training, coaching and fidelity monitoring.

Although Maryland has developed and sustained a variety of EBPs over the last five years, due to limited state or agency funds, there are still parts of the state with little or no access to these cost effective practices. Also, FFT and MST are typically limited to families with at risk youth who are referred through the juvenile justice or child welfare systems, the primary funders of these EBPs that target out of home placement reduction. In addition, Maryland was unsuccessful at its first attempt to establish enhanced Medicaid rates for both FFT and MST. With new momentum through the 1915(i) waiver and the Title IV-E waiver, Maryland will likely attempt to establish those rates once again. For further information on Maryland's efforts and those of other states, see the recent Georgetown monograph (Stroul, Pires, et al., 2014)

Conclusion

In the emerging era of mental health parity, youth and families should expect to receive and participate in proven and effective behavioral health care services just as they expect to receive proven and effective physical health care services when they visit a medical service provider. There are a wide variety of evidence-based and promising practices that can be part of an integrated, comprehensive approach to service delivery in systems of care. By attending to factors associated with high-quality implementation and creatively blending funds, systems of care can support and sustain installation and implementation of these practices.

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ABOUT THE NATIONAL TECHNICAL ASSISTANCE NETWORK FOR CHILDREN'S BEHAVIORAL HEALTH

The National Technical Assistance Network for Children's Behavioral Health (TA Network) operates the National Training and Technical Assistance Center for Child, Youth, and Family Mental Health (NTTAC), funded by the Substance Abuse and Mental Health Services Administration, Child, Adolescent and Family Branch. The TA Network partners with states, tribes, territories, and communities to develop the most effective and sustainable systems of care possible with and for the benefit of children and youth with behavioral health needs and their families. The TA Network provides technical assistance and support across the country to state and local agencies, including youth and family leadership organizations.

ABOUT CASE WESTERN RESERVE UNIVERSITY

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