



Implementation of a workforce initiative to build trauma-informed child welfare practice and services: Findings from the Massachusetts Child Trauma Project



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ABSTRACT

Children involved with Child Protective Services experience high rates of chronic and cumulative interpersonal trauma and adversity, referred to as complex trauma, that can have a profoundly negative impact on well being across the life course. Child welfare agencies face myriad challenges in addressing the needs of children with complex trauma. In response, the Massachusetts Child Trauma Project (MCTP) was launched as a statewide initiative to enhance the capacity of child welfare workers and child mental health providers to identify, respond, and intervene early and effectively with children traumatized by chronic loss, abuse, neglect, and violence. Specifically, this large-scale multi-system improvement effort is driving practice change through three key mechanisms in all regions of the state: (1) training child welfare staff and resource parents to recognize and respond to child trauma, (2) disseminating three trauma-focused EBTs in community-based mental health agencies via sequential cohorts of intensive Learning Collaboratives, and (3) implementing child welfare-led Trauma-Informed Leadership Teams (TILTs) that bring mental health providers, child welfare workers, and consumers together to sustain efforts to implement, maintain and spread trauma-informed practices. The article describes the development and implementation of this multiyear initiative and a number of key lessons learned to date.

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1. Introduction

Child abuse and neglect are traumatic experiences that profoundly disrupt the developmental imperative of safe, predictable, and nurturing care (Cook et al., 2003). Children involved with Child Protective Services who are removed from the home potentially suffer the additional trauma of separation from the primary caregiver and the cumulative insult of repeated experiences of separation and loss due to placement changes in foster care (Greeson et al., 2011; Spinazzola et al., 2013). The chronic and cumulative experience of abuse, neglect, and parental

loss prevalent among children involved with child welfare services is recognized as “complex trauma” because of its invasive interpersonal nature and deleterious impact on children’s self-regulatory functioning and capacity to form healthy attachments and relationships (Courtois & Ford, 2009; Kisiel, Fehrenbach, Small, & Lyons, 2009; Spinazzola et al., 2013). The effects of complex trauma on children’s short- and long-term health and well-being are wide-ranging and include anxiety, depression, substance abuse, aggression, and sexual disorders in adolescence and adulthood (Cook et al., 2003; Spinazzola et al., 2005).

Despite the high level of need, addressing child trauma presents significant challenges to the child welfare system. At the organizational level, administrative and frontline workers need sufficient knowledge, skills, and tools to support new trauma-informed practices (e.g., awareness of trauma triggers; timely and sensitive identification; referral to trauma-specific evidence-based treatment) (Ko, 2007; Ko et al., 2008). Given the high rates of traumatic stress symptoms and/or compassion fatigue in child welfare workers which leads to job burnout, job

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withdrawal, and exit from child welfare positions (Bride, 2012; Conrad & Kellar-Guenther, 2006; Pryce, Shackelford, & Pryce, 2007; Sprang, Craig, & Clark, 2011; Van Hook & Rothenberg, 2009), special attention must also be given to reducing the impact of work-related trauma (Hopkins, Cohen-Callow, Kim, & Hwang, 2010). Specific training materials are available to support these trauma-informed practice changes (Bride, 2012; Conrad & Kellar-Guenther, 2006; Layne et al., 2011; Pryce et al., 2007; Sprang et al., 2011; Van Hook & Rothenberg, 2009). However, as with any system-wide training initiative, building capacity for trauma sensitive care involves considerable long-term commitment of resources, planning, and oversight.

At the community level, dissemination of evidence-based trauma-focused mental health treatment is similarly resource-intensive, with recent research estimating costs as high as \$500,000 to implement an EBT statewide (Sigel, Benton, Lynch, & Kramer, 2013). Training to support adoption of a new clinical practice is demanding under any circumstances and particularly when treating children and youth experiencing complex trauma (Aarons, Hurlburt, & Horwitz, 2011; Aarons, Wells, Zagursky, Fettes, & Palinkas, 2009; Chamberlain et al., 2012; Cohen & Mannarino, 2008). Further, uptake of an EBT requires intensive training and consultation, as well as a sufficient length of time to learn the new approach with clients, to support transferability of the desired outcomes from the research to practice setting (Ebert, Amaya-Jackson, Markiewicz, & Burroughs, 2008; Fixsen, Naom, Blase, Friedman, & Wallace, 2005; Sigel et al., 2013).

1.1. Building a foundation for workforce improvement in child welfare

In 2011, the Massachusetts Department of Children and Families (MA DCF) ranked 43rd out of 51 states in the Child and Family Services Review composite measure of placement stability, indicating a clear need for improved services for vulnerable children and youth. A closer look at placement data during the period of 2009 to 2011 showed adolescents and preschool age children generally had poorer placement stability than those who were latency-aged. Additionally, youth in kinship placements were more stable than those in other placements, including foster care and residential levels of service, consistent with other research on placement stability (Children and Families Research Center, 2004). Further exploration of state Child Welfare System (CWS) data found that 68.5% of children had home removal reasons consistent with complex trauma (e.g., abandonment, neglect, physical or sexual abuse). Eighty-five percent of these children had no prior home removal episodes, 15% had one prior removal, and 3% had two or more prior home removals. Reasons most commonly cited for home removal included neglect (77.6%), parental drug abuse (22.9%), and physical abuse (14.7%). After a home removal incidence, children had an average of 3.9 placements (range = 1–47) and the average number of placement days was 132 (range = 1–1066 days).

As part of its strategic planning efforts, and in response to these indicators, MA DCF designed and implemented a new casework practice model to transform the culture of the agency to reflect more progressive best practices in child welfare. Grounded in the nationally recognized Strengthening Families and Positive Youth Development frameworks (Center for the Study of Social Policy, n.d.-a,-b), the design drew heavily on implementation science and adult learning. The new practice model builds on the experience of other states (including Minnesota, California, New Jersey and Missouri) implementing a Differential Response model and the Signs of Safety framework (Chapman & Field, 2007). A parallel effort was also initiated within DCF to address secondary traumatic stress (STS) and organizational stress inherent in the child welfare system. The work focused on STS had been initiated in 2008 in collaboration with an expert in organizational behavior at the Boston University School of Management (Kahn, 2003, 2011). This effort included training managers and staff on the impact of STS, training DCF volunteer social workers and supervisors to facilitate debriefing groups, and instituting debriefing

and “social work support groups” after critical incidents or home removals.

The cornerstones of the new practice model are *positive engagement and empowerment of families*, *progressive understanding of families' needs and strengths*, *building capacity of parents to effectively parent their children*, and *consolidating and sustaining gains*. The clinical approaches established in the new model emphasize safety-organized, trauma-informed and solution-focused casework. To support this effort, MA DCF instituted a significant training and coaching process to assist child welfare staff in adopting these new practices. The new casework practice model provided an important foundation for enhancing the capacity of child welfare staff to engage in trauma-informed practice.

1.2. Private–public collaboration

MA DCF's work to transform casework practices was accompanied by efforts to strengthen collaboration with mental health providers providing services, with the focus on MA DCF's Support and Stabilization program, the state's Medicaid program comprehensive services for children with Serious Emotional Disturbance (known as the Children's Behavioral Health Initiative), and outpatient behavioral health. Towards this end, the Department became involved in a National Child Traumatic Stress Network (NCTSN) Breakthrough Series Collaborative focused on trauma-informed child welfare practice to improve foster care placement stability (Conradi et al., 2011). The Breakthrough Series Collaborative method was developed by the Institute for Healthcare Improvement nearly two decades ago and has since been used successfully in multiple health care settings and systems (Institute for Healthcare Improvement, 2003). It was designed to be a short-term learning system “to help organizations close [the gap between what we know and what we do] by creating a structure in which interested organizations can easily learn from each other and from recognized experts in topic area where they want to make improvements.” (Institute for Healthcare Improvement, 2003)

The trauma-informed child welfare practice Breakthrough Series Collaborative, which took place between 2010 and 2012, involved teams from nine states across the country, each comprising a partnership between a county- or State-level public child welfare agency and an organization that provided evidence-based intervention for child trauma. Provider organizations were part of the NCTSN consortium of grantees across the country funded by the Substance Abuse and Mental Health Services Administration to enhance the standard of care for traumatized children and their families (Conradi et al., 2011). In Massachusetts, the partnership was between DCF and the Central Massachusetts Child Trauma Center (which itself was a partnership between LUK, a community-based mental health provider agency, and the University of Massachusetts Medical School).

The Breakthrough Series Collaborative process identified a number of priorities for the MA DCF's work going forward in building trauma-informed casework practice: (a) improving identification and assessment of children exposed to complex trauma; (b) fostering trauma-sensitive and trauma-informed practices among child-serving agencies; (c) increasing trauma training and sensitivity of caregivers (e.g., biological, kin, and foster parents); (d) improving linkages and referral rates to evidence-based trauma treatments; and (3) building service provider capacity for trauma-focused EBTs in Massachusetts.

This history of public-private collaboration led next to an ambitious statewide initiative in Massachusetts to build capacity for trauma-informed care and trauma-specific services at the child welfare system and community provider levels, respectively. This initiative, which is called the Massachusetts Child Trauma Project (MCTP), is funded by the Administration for Children and Families Children's Bureau and is a partnership between DCF, LUK, the Child Witness to Violence Project at Boston Medical Center, the Justice Resource Institute, and the University of Massachusetts Medical School. The primary goal of MCTP is to improve placement stability and permanency outcomes for children with complex trauma in MA DCF's care. The overarching vision for the

initiative is to build sustainable workforce capacity for trauma sensitive practice changes within MA DCF and to integrate evidence-based trauma treatments into the existing mental health service array in Massachusetts, as well as to foster greater communication between the two systems.

1.3. The present paper

This article describes the major components of the MCTP since its inception in the fall of 2011. We present our approach, including activities that informed implementation, the evaluation plan, and preliminary implementation findings in the initial year (October 2012–September 2013). We then reflect on lessons learned about implementation and solutions forged in pursuing a parallel track of capacity building at both the agency and the community provider level.

2. Methods

As noted above, MCTP is a two-pronged capacity-building effort focused on coordinating dissemination of trauma-focused EBTs at community-based mental health agencies in parallel with training to support trauma-informed practice by child welfare staff. Each of these tracks is discussed below.

2.1. Trauma-informed practice change in the child welfare system

The specific elements of “trauma-informed” practice are defined depending on the population and system/service sector in question (DeBoard-Lucas, Wasserman, Groves, & Bair-Merritt, 2013; Fallot & Harris, 2001; Igelman, Conradi, & Ryan, 2007; Kiser, Nurse, Lucksted, & Collins, 2008; National Center for Trauma-Informed Care & Substance Abuse and Mental Health Services Administration, n.d.). For traumatized children involved with the child welfare system, a consensus is mounting around several core areas of knowledge and practice change as reflecting trauma-informed practice: (1) an understanding about the impact of trauma on the development and behavior of children and youth, (2) knowledge about when and how to intervene directly in a trauma- and culturally-sensitive manner through strategic referrals, (3) ensuring access to timely, quality, and effective trauma-focused intervention, (4) a case planning process that supports resilience in long-term healing and recovery, and (5) attention to self-care in response to working with traumatized children (Arvidson et al., 2011; Cohen, Mannarino, & Murray, 2011; Lieberman, Chu, Van Horn, & Harris, 2011; U.S. Department of Health & Human Services & Administration for Children & Families, n.d.). Taken together, these improvements also substantially address the Child and Family Service Review goals of safety, permanency, and well-being.

2.1.1. Layers of child trauma training

The MCTP is supporting practice change through two pathways. The first involves training of DCF staff and resource parents to recognize and respond to child trauma. Two curricula developed by NCTSN are being used for statewide training: the Child Welfare Trauma Training Toolkit (3rd Edition) (Child Welfare Collaborative Group & National Child Traumatic Stress Network, 2013) and the Resource Parent Curriculum (Grillo, Lott, & the Foster Care Subcommittee of the Child Welfare Committee, 2010). Both training materials were successfully piloted as part of the Breakthrough Series Collaborative, resulting in an increase in referrals to trauma-focused EBTs by caseworkers at Area Offices that participated in the trainings compared to all other Area Offices across the state.

MA DCF is systematically rolling out the two sets of trainings across the four regions of the state, beginning with an initial cohort in the Western and Northern regions (2012–2013). The initial cohort will be followed by a second cohort of Learning Communities, that will take place in the Boston and Southern regions; due to scheduling constraints, the second cohort is running slightly more than 12 months in duration

(2013–2015). The trainings are offered in sequence, with an initial (2 hour) “basic” training on child trauma (including an introduction to the EBTs being disseminated via the MCTP), convened at the Area Offices in the regional cohorts. The basic trainings are followed several months later by a more intensive 1-day training using the Essential Element Modules of the Toolkit. While the trainings are not mandatory, MA DCF workers are strongly encouraged to attend the “advanced” training to obtain more knowledge and learn specific trauma-informed strategies to put into practice.

The Child Welfare Trauma Training Toolkit is designed as a 2-day training. However, concerns about feasibility given the number of training hours already required for agency staff prompted our team to create Webinars to deliver the predominantly didactic sections of the toolkit. These Webinars were offered prior to the in-person training, maximizing the time during face-to-face learning for case-based discussion to apply new concepts. The Webinars are also being used to orient new child welfare staff to trauma-informed casework practice. A third set of trainings is using the NCTSN Resource Parent Curriculum (RPC), which focuses on strategies for enhancing trauma-informed care on the part of foster parents (Grillo et al., 2010).

2.1.2. Trauma-informed leadership teams (TILTs)

In tandem with the cascading child welfare trauma trainings across the state, the initiative is supporting the implementation of Trauma-Informed Leadership Teams (TILTs) in each DCF Area Office. The TILTs are charged with “tilting” practices to be more responsive towards traumatized youth and families. The TILT model grew out of the Breakthrough Series Collaborative described earlier, which illuminated how the synergy of mental health providers, child welfare workers, and consumers coming together with a shared commitment to make change happen was a powerful mechanism for “tilting” practice towards change.

Key informant interviews were conducted with members of the Breakthrough Series Collaborative prior to launching the MCTP TILTs to identify strategies associated with successful implementation. Recommendations centered on (a) qualities and issues to consider when selecting members for the team, (b) effective team-building strategies and processes, (c) emphasis on offices trying small tests of change, and (d) guidance for spreading and sustaining new practices. For example, new TILTs were encouraged to invite parents or youth whose cases had been closed at least six months to ensure there was no direct relationship with MA DCF staff, trauma clinicians, or foster parents on the TILT and to pair parents and youth with a ‘mentor’ on the team to support participation.

These recommendations for supporting effective TILTs resonate with themes covered in a Strengths and Needs self-assessment tool that the teams are asked to complete in the early phase of their formation. The tool, adapted from the Breakthrough Series Collaborative (Igelman et al., 2007), provides a set of priorities and metrics to track progress towards trauma-informed casework practice including awareness of and strategies to reduce secondary traumatic stress. The intent of the self-assessment is to introduce trauma-informed terminology, objectives, and practices in a concrete manner and to assess readiness and capacity to engage in change. Five themes are addressed: (1) knowledge building and developing practice, (2) trauma-informed mental health assessment, (3) case planning and management, (4) externally-delivered trauma-informed services, and (5) child welfare systems, cross system partnerships, and system collaboration. Each TILT engages in a process of self-assessment to determine their baseline functioning as a system and to monitor effective change over time. The teams use a color-coded dashboard to track their baseline strengths and areas for improvement from the self-assessment, identify action steps, and progress over time. Teams use this information to help identify action steps and to track their progress.

2.2. Trauma-informed practice change: mental health provider agencies

In tandem with DCF trainings on child trauma and implementation of the TILTs, MCTP is disseminating several evidence-based or evidence-supported treatments across the state: Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT), Child–parent Psychotherapy (CPP), and Attachment, Self-Regulation and Competency (ARC). These three EBTs were selected based on national and state data on trauma exposure among children in the care and custody of MA DCF, the accessibility of trainers (for both cost and sustainability concerns), and feasibility of the model for service delivery settings and meeting the needs of children exposed to chronic complex trauma. Each treatment model is briefly described below.

Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT) is a components-based trauma treatment designed to treat posttraumatic stress and related emotional and behavioral problems in youth ages 3–18. It is appropriate for single incident or multiple trauma exposure as well as for children experiencing complex trauma. TF-CBT is, to date, the most widely evaluated treatment for trauma in children, with over 13 clinical trials demonstrating its efficacy and effectiveness, including two ongoing international clinical trials in progress. It has been used with children exposed to a range of different types of trauma across a variety of geographic, ethnic, religious, and socioeconomic strata. TF-CBT is composed of several major components designed to be conducted across 12–18 treatment sessions: Psychoeducation; Parenting Skills; Relaxation; Affective Expression and Modulation; Cognitive Coping; development of a Trauma Narrative and Cognitive Processing of the Trauma Narrative; In Vivo Exposure; Conjoint Child–Parent Sessions; and Enhancing Future Safety and Development (PRACTICE). The components are implemented sequentially, each building off the previous component. For children experiencing complicated or complex trauma, applications of TF-CBT are adjusted to include relaxation training and safety planning at the beginning of treatment, and treatment length is generally longer (e.g., 25 to 30 sessions) (Cohen, Mannarino, & Deblinger, 2012; Cohen, Mannarino, Kliethermes, & Murray, 2012). In Massachusetts, TF-CBT has been successfully implemented at numerous community-based mental health agencies in outpatient, home-based and residential settings that serve children with multiple chronic traumas, with many children meeting criteria for complex trauma.

Child–parent Psychotherapy (CPP) is a trauma-focused and attachment-informed dyadic model developed specifically for very young children (birth to six years) and their primary caregivers, addressing the fundamental role of the caregiver–child relationship in healing the effects of trauma and promoting healthy development. The model treats disruptions and disturbances in the caregiver–child relationship, including the traumatic responses of young children who have experienced abuse, neglect, and attachment loss (Chu & Lieberman, 2010; Lieberman, Weston, & Pawl, 1991). Treatment is delivered with the caregiver–child dyad together, with the focus on supporting, strengthening, and repairing the attachment relationship (Lieberman & van Horn, 2005). CPP has been evaluated in several separate randomized controlled trials with young children exposed to relational trauma (domestic violence, maltreatment) and found to reduce behavioral, attachment, and mental health problems (Lieberman, Van Horn, & Ippen, 2005; Toth, Rogosch, Manly, & Cicchetti, 2006) with positive outcomes enduring six months following treatment completion (Lieberman, Ghosh Ippen, & van Horn, 2006). CPP is one of the few empirically validated interventions for very young traumatized children. The treatment is highly flexible and explicitly integrates cultural values and culture-related experiences into treatment planning and delivery.

The Attachment, Self-Regulation and Competency (ARC) model offers a comprehensive, flexible framework for intervention with children and youth who have experienced multiple and/or prolonged traumatic stress. ARC identifies ten building blocks of trauma-informed treatment that fall within the three core domains of attachment, self-regulation, and competency. These building blocks, or treatment targets, reflect

the scientific literature on (a) impact of traumatic stress; (b) normative and impacted attachment; (c) normative development; and (d) factors associated with resilience among stress-impacted youth (Blaustein & Kinniburgh, 2010; Kinniburgh, Blaustein, Spinazzola, van der Kolk, 2005). As a newer treatment approach, ARC has not yet been evaluated in a randomized controlled trial. However, several observational studies have shown positive behavioral, mental health, and improved permanency outcomes (see Hodgdon, Kinniburgh, Gabowitz, Blaustein, & Spinazzola, 2013). In addition, data from the cross-site evaluation of the National Child Traumatic Stress Network showed that ARC-based treatment services demonstrated consistent significant reductions in behavioral problems and Posttraumatic Stress Disorder (in children age five and older) that were equivalent to those observed in children receiving TF-CBT (ICF Macro, 2010).

2.2.1. Pairing treatment with individual needs

Screening protocols were developed for the project to provide guidance to mental health and child welfare staff in identifying which of the three EBTs should be selected per child's presentation. The guidance was derived from the empirical evidence, recommendations from the treatment developers regarding intended usage indications, and history of successful implementation with children and caregivers within and across three contextual parameters: developmental stage, caregiver availability/involvement, and primary clinical presentation. The protocol follows a hierarchically ordered set of considerations beginning with developmental stage of child, followed by caregiver involvement, and then primary clinical presentation.

2.2.2. EBT dissemination: piloting a learning community model

The EBT dissemination is being implemented using the *Learning Collaborative/Community* approach, an intensive learning method based on the IHR Breakthrough Series Collaborative model for supporting effective uptake across multiple settings and creating changes in organizations that promote the delivery of effective interventions and services (Markiewicz, Ebert, Ling, Amaya-Jackson, & Kisiel, 2006). The model emphasizes adult learning principles, interactive training methods, and skill-focused learning. It brings together teams from different agencies to learn from one another over the course of an extended learning process (typically 12–18 months), with multiple opportunities for face-to-face learning sessions; follow-up consultation activities; feedback loops (including the use of fidelity metrics); resources to support sustained learning; and opportunities to practice new skills and share progress with colleagues learning the Learning Collaborative model (Markiewicz et al., 2006).

MCTP is implementing the EBT dissemination process in two primary waves of Intensive Learning Communities, each a year long, across the four regions in the state (Cohort 1 in the Western and Northern regions first, followed by Cohort 2 in the Boston and Southern regions). The process was designed so that the timeline and requirements for training were generally consonant across the three EBTs: 12-months in duration and carried out in coordination with child trauma trainings and TILT development in MA DCF's Regional and Area Offices. Nationally credentialed trainers are conducting the Learning Communities, which comprise face-to-face trainings and monthly phone consultations with clinicians and supervisors. The MCTP EBT dissemination process also includes a 'senior leader' track to support uptake of the EBT by clinical supervisors and agency administrators, focused on collective problem solving around administrative challenges (e.g., referrals, billing).

2.3. Evaluation approach

The MCTP evaluation is driven by a multi-modal approach to assess changes within the MA DCF and among the provider agencies that offer services to child welfare-involved children. The evaluation utilizes a multi-source, multi-method approach including surveys, records reviews, and individual child assessments to measure both process and

outcome, and provide feedback to project management, Departmental staff and clinical providers for continuous quality improvement.

2.3.1. Implementation evaluation: EBT implementation readiness

Previous research finds that successful implementation of evidence-based practices is strongly related to clinician characteristics and attitudes, organizational factors, and other factors related to implementation supports (Aarons, 2005; Durlak & DuPre, 2008; McHugo et al., 2007). MCTP is employing several instruments to assess provider capacity for EBT implementation for both planning purposes and as factors to consider in evaluating implementation outcomes. During the initial planning year of the project, Area Office Directors were asked to complete a survey assessing the availability and accessibility of evidence-based trauma treatment for the children they serve. The survey comprises a subscale of the Trauma System Readiness Tool, adapted by the Chadwick Trauma-Informed Systems Project (Hendricks, Conradi, & Wilson, 2011).

A corollary assessment of organizational readiness was conducted with clinicians enrolled in the Learning Communities for the three EBTs. The Evidence-Based Practice Attitude Scale (EBPAS) was used to measure clinician's attitudes toward adopting an EBP (Aarons, 2004). The EBPAS is a 15-item scale with four subscales (*Appeal*, *Requirements*, *Openness*, and *Divergence*) and a global score. The *Appeal* subscale assesses the degree to which clinicians would be willing to adopt an evidence-based practice if the new practice was appealing (e.g., if it were intuitively appealing, easy to use, or used by colleagues), and the *Requirements* subscale assesses their willingness to adopt if it was required of their agency or state. The *Openness* subscale measures their general openness to innovation and willingness to try a new practice while the *Divergence* subscale assesses the extent to which the clinician perceives evidence-based practices as not clinically useful or as important as clinical experience (reverse scored). Scores reflect a Likert scale of 0–4 (0 = Not at All to 4 = To a Very Great Extent). A second tool, the Trauma-Informed System Change Instrument, 2nd Ed. (TISCI), was used to assess readiness for change at the organizational and staff level (Richardson, Coryn, Henry, Black-Pond, & Unrau, 2012). The TISCI is an 18-item tool with three subscales: agency policy (e.g., local, state, and federal policies that shape the focus and actions of professionals), agency practice (specific treatments and resources available locally that support a trauma-informed system), and individual practice. Scores on the TISCI are rated from 1 to 5 (1 = Not at All True for My Agency/Me to 5 = Completely True for My Agency/Me).

The evaluation is also systematically documenting implementation, including the provision of trauma training for MA DCF staff (i.e. number of basic and advanced trauma trainings provided, attendance, satisfaction, and perceived knowledge gained) and the process of implementing the TILT team model (self-assessment of needs, identification of areas for improvement, progress toward implementing changes, frequency and attendance of TILT team meetings). Uptake of EBTs is also being documented in terms of the number and types of trainings provided, number and frequency of consultation sessions, attendance, satisfaction with the training and consultation process, and perceived challenges of implementing trauma treatment for MA DCF-involved children – including interfacing with and receiving referrals from the Departmental staff.

EBT implementation is being monitored by each agency team's supervisor, using a self-assessment checklist specific to each EBT completed by clinicians at each 6-month follow-up and discharge of the client. Individual child assessments of trauma exposure, trauma symptoms, behavior and functioning are being used to inform the provision of clinical services and monitor treatment progress. Clinicians collect this information from children and families at the start of treatment and every 6 months until discharge. The data are entered and managed using a secure online data capture system, REDCap, hosted at the University of Massachusetts Medical School (Harris et al., 2009), and reports are automatically generated by the system for timely use in treatment planning. These reports are intended to help clinicians engage

families by showing progress through treatment and as an aid in treatment planning.

2.3.2. Outcome evaluation: emphasis on data-driven treatment services

The outcome evaluation is focused on practice changes at the system level (both in terms of MA DCF and provider agencies) as well as improvements in child level outcomes (e.g., symptoms, behavior, and placement stability). Changes at the system level are being measured annually and analyzed to assess improvements in trauma sensitive practices and attitudes, implementation of screening and referral, collaboration among child serving agencies and providers, the number of clinicians trained to deliver evidenced based trauma treatment, and the number of MA DCF-involved children and families receiving evidence-based trauma treatment. The child and family data are being collected by clinicians and entered in the REDCap system. These outcome data will be aggregated and analyzed for satisfaction with services, statistically significant and clinically meaningful improvements in trauma symptoms, behavior, and functioning. Finally, record review of placement data and also of Medicaid data will be analyzed at the aggregate level for improvements in placement stability and reunification, decreases in behavior problems and PTSD symptoms, fewer repeat trauma exposures, and reductions in caregiver stress. The outcome evaluation was approved as exempt from review by the Human Subjects Institutional Review Board of the University of Massachusetts Medical School.

3. Results

In the section that follows we report the findings to date regarding organizational readiness, implementation of the TILT teams, and EBT implementation progress

3.1. Organizational readiness needs assessment

In the planning year for the project (October 2011–September 2012), the Trauma System Readiness Tool was administered to all 29 Area Office Directors; 24 (83%) completed this organizational self-assessment. Responses indicated that the availability of trauma-focused treatment was highly limited in the offices' service delivery areas. Consistently, there were themes of poor access and lack of clinicians with specialization in evidence-based trauma treatments. Respondents referred to long waitlists and distance, with only a small subset of providers within agencies being trained in trauma-specific treatment and many providers being outside of the catchment area. Another area of concern was difficulty ascertaining whether providers offered trauma-specific treatment, as many agencies refer to "trauma counseling" without defining what that means other than working with populations who have been traumatized. Language capacity to meet the needs of different cultural groups was also identified as a problem.

The EBPAS and TISCI measures were administered to the first cohort of clinicians (N = 153 out of 192 clinicians; response rate of 79.7%). These clinicians represented 20 provider agencies. Eighty-seven percent of clinicians had at least Masters level training or greater. The most frequently cited clinical services provided were individual therapy, family therapy, home-based therapy, and group therapy to children, adolescents, and adults. Clinicians had significant experience working with a variety of ethnic groups such as African Americans, Latinos, and Asians, and also reported extensive experience working with foster children, homeless children, and LBGTQ youth. Forty-six percent of clinicians had 0–5 years of professional experience, 23% had 6–10 years, 20% had 11–20 years, and 10% had 21 years or greater.

Responses to the EBPAS were overall positive and therefore did not suggest that any of the four attitude domains was an overriding factor that may affect implementation and need to be addressed in the Learning Community trainings or senior leader track. Average scores were somewhat higher on the *appeal* and *openness* subscales (3.2 and 3.0,

respectively) than the *requirement* subscale (2.7). Scores were lowest for the *divergence* subscale (0.9) suggesting that clinicians did not have a negative attitude toward evidence-based practice. The average global score for the EBPAAS was 2.5, suggesting moderate level of receptiveness and readiness to learn a new practice. Scores on the TISCI were similarly positive, indicating that at the individual level, clinicians had a strong intention to consistently engage in trauma-informed practice (average score of 3.8). Responses were also favorable regarding perceptions of agency-level policy and practice supports for trauma-informed care (3.2 and 3.5, respectively).

3.2. Implementation of child trauma trainings

The basic training was provided to 1,096 MA DCF workers (the more advanced Child Welfare Training Toolkit Trainings are currently in process). Attendees at the basic trainings were predominantly social workers but also included administrative staff as well. On average 50 participants attended each basic training. A training evaluation completed by 645 (59%) of attendees collected information on staff experience at MA DCF and other characteristics, prior knowledge regarding the effects of trauma, content and usefulness of the training, and satisfaction with the training and trainers. The mean years of experience was 13.73 years (range: 0–44 years). The majority of respondents were women (82%). Seventy-four percent were white, 18% were Hispanic/Latino, and 14% were Black. Respondents varied considerably in their prior knowledge about the effects of trauma, with nearly half reporting they had “a good deal” of previous training/knowledge. The vast majority (90%) of respondents reported that they would use what they learned in the training in their work. Eighty percent of workers who completed the training evaluation reported being satisfied or very satisfied with the training (80%). Respondents identified several areas to address in future training, including cultural differences and the inclusion of caregiver and youth voices.

3.3. Implementation of TILT teams

All 17 Area Office TILTs in the Northern and Western regions of the state launched in October of 2012 (the other 12 Area Offices in the state were launched as Cohort 2 in October of 2013). MCTP organized a TILT kick-off event for the Area Offices to launch the teams in each cohort. During the event, new team members were provided with an overview of the foundations of the Massachusetts Breakthrough Series Collaborative, expectations of TILTs, considerations for team selection, retention, and dynamics, the strength and needs assessment, developing trauma-informed innovations, and suggested strategies for spreading these practice changes throughout the office. Teams typically include an administrative and frontline worker at the Area Office, administrative leaders and clinical supervisors participating in different EBT Learning Communities in the area district, representatives from schools, courts, and/or medical providers, as well as consumers. However, identifying and eliciting participation of birth parents and youth who had previously been involved with the MA DCF to serve on TILTs is an ongoing challenge.

By the end of the initial implementation year (September 2013), the majority of TILTs in the Northern and Western regions had completed their self-assessments and were implementing trauma informed innovations to address issues identified through the assessment process. These innovations range from small tests of change in the Area Office to cross-system efforts to strengthen collaborative ties between DCF workers and mental health providers in the community. For example, one TILT is conducting a survey to identify topics that can foster deeper understanding and respect for roles, responsibilities, practices, and concerns across systems (e.g., how DCF makes placement decisions; why clinicians are reluctant to testify in court). This TILT is planning to create short webinars that address topics identified as priority areas by surveying provider agencies and child welfare staff. Other TILTs are focusing on

incorporating consumers' treatment goals into their DCF service plan or on best practices when children/youth are leaving and entering school systems (e.g., providing information to schools on how to identify and effectively respond to trauma-related behaviors). Another TILT is developing a script for caseworkers to use when conducting trauma screening with children.

In an effort to solidify the TILTs, gatherings to bring TILT teams together across Area Offices were convened at the end of the initial implementation year. The purpose of these gatherings was to provide an opportunity for teams to share ‘small tests of change’ they were undertaking, share strategies that strengthen and sustain the team, create a peer-to-peer network, and strengthen the collaborative relationships and functioning of the teams. Topics included discussions and activities about leadership styles in groups, identification and implementation of trauma informed innovations, participation of community members and former DCF consumers, as well as collaboration with mental health providers. We addressed the potential tension among TILT participants who are more focused on team process and ensuring that everyone's voice is heard, and those who are more task-oriented and ensuring that the team is moving forward with action steps. Additional areas of focus included the challenges of recruiting and maintaining representation of parents and youth with former DCF involvement as well as difficulties with disseminating innovations and engaging staff who are not participating on a TILT to implement identified practice changes. We included energizing activities to promote the importance of self-care and address secondary traumatic stress. These gatherings were very well attended and well received, with 91 TILT members attending, representing all Area Offices in this initial cohort.

Both informal and formal feedback to the Department from TILT members pointed to the championing role of Area Office managers as the critical factor to successful teams. The decision of who would take the lead in launching and developing TILTs was assigned to the managers in each office. Some offices identified supervisors and/or social workers to take on this role and were able to develop strong teams. However, it required the participation and investment of the managers themselves for the work of TILTs to be successfully integrated into the office as a whole. Staffing resources can play a major role in either supporting or undermining a manager's availability to actualize this championing

Another key factor contributing to successful TILTs was the comfort level in engaging members of the community on their team. Offices that were the most successful in these efforts already had well-established relationships with mental health providers in the community. Offices that did not have a strong history of collaboration with community mental health agencies were pleasantly surprised to discover the degree of interest there was on the part of providers to participate on their TILTs. Feedback from the TILT members consistently refers to the positive relationships that have developed among the different system representatives and providers who participate on the team.

3.4. Preliminary findings: uptake of EBTs

The initial cohort of provider agencies participating in the Learning Communities for the three EBTs involved a total of 20 agencies comprising 40 teams from North East, Central, and Western Massachusetts. The number of teams was spread relatively evenly across the EBTs (15, 13, and 12 for ARC, TF-CBT, and CPP, respectively). In total, 192 mental health providers (clinicians and clinical supervisors) are participating in this initial cohort.

The agencies represented a diverse set of organizations in terms of size (number of clinicians and number of children and families served, demographics of client population), and geographical location. They included 11 large agencies (i.e., with a client-base of 2,500 or more children/families per year) with a large number of sites and clinical staff, multiple programs (e.g., Safety & Stabilization, Congregate Care, CBHI, residential, substance abuse, early intervention), and

long-standing ties to the MA DCF as a child welfare and/or domestic violence services provider. One of these agencies is the largest provider of MA DCF-funded Safety and Stabilization and Congregate Care services in the State. The four mid-size agencies also offer a range of programs, commonly offered at more than one site, serving a large number of clients (in the range of 1,000 to 2,000 children and families). The remaining five agencies had a smaller reach in comparison to the large and mid-sized organizations (ranging from 50 to 500 children served annually) and a smaller number of clinical staff (fewer than 20 licensed therapists). One of these smaller agencies was an accredited Children's Advocacy Center and NCTSN trauma center that was part of a large hospital system. Most agencies in the Western and Central regions of the state include rural towns in their catchment areas.

A key indicator of EBT implementation progress is children's enrollment in treatment. At the end of the first year of implementation (September 2013), 298 children were enrolled in an EBT (101 enrolled in ARC; 77 enrolled in CPP; and 120 enrolled in TF-CBT). The enrollment goal for each EBT was 3 clients per clinician and 2 clients per clinical supervisor. The enrollment goals were based on recommendations, current at the time the initiative was being planned, from the TF-CBT, CPP, and ARC treatment developers for the numbers of cases needed to support sufficient practice of the new treatment. Based on MCTP enrollments, 131 clinicians enrolled at least one client (61.5% of 213 trained clinicians and supervisors); 89 (42%) enrolled at least 2 clients; 53 (25%) enrolled at least 3 clients; and 19 (9%) enrolled more than 3 clients. It is possible that clinicians who have not yet met their enrollment goal for the project may still have met the requisite number of cases needed to learn the model; this information will be collected from clinicians directly. Forty-three children have completed the 6-month follow-up assessment and 39 clients have been discharged. One CPP team dropped out of the Learning Community, primarily due to staff leaving the agency, and 31 clinicians (16%) left their agency during the implementation period.

4. Discussion

The goal of MCTP is to promote alignment across multiple service delivery systems to ensure that families are receiving appropriate trauma-informed services, with a particular focus on increasing placement stability and access to trauma-focused treatments. Fundamental to this system transformation is recognition that agency culture plays a significant role in determining the most effective strategies to implement change. Implementation of any significant change in practice requires sensitivity to other environmental factors (e.g., budget constraints, concurrent policy, practice or leadership changes in the agency, etc.), as well as an intentional effort to conceptually integrate change with other initiatives the agency may be undertaking. Special attention to the "occupational hazard" of exposure to Secondary Traumatic Stress is a key element of transforming agency culture. For example, the trauma-informed approaches being introduced within the child welfare system through MCTP have been embedded into DCF's new casework practice model developed in response to the 2007 CFSR reviews. Implementation of MCTP has affirmed that practice changes must be fully integrated to ensure that 476 do not view these efforts as simply a "practice de jour" or as separate and distinct initiatives.

4.1. Building organizational capacity: challenges and solutions

Child welfare is highly demanding work and freeing up staff time for participation on the TILT teams has been a challenge for several Area Offices. Accordingly, additional effort has been directed to encouraging and supporting the work of the TILTs. For example, conference calls have been held with TILT leaders every other month to provide an opportunity for teams to share their challenges, their successes and progress and to learn from each other. Planning is currently underway to host regional gatherings of TILT members so teams can share and

develop strategies for practice innovation. Additionally, identifying and eliciting participation of birth parents and youth previously involved with child welfare services to serve on TILTs has been a challenge. The project is seeking supplemental funding that will facilitate broader participation by consumer representatives on the TILTs.

Originally it was hoped that the TILTs would be able to complete the self-assessment within one or two meetings; however, for most TILTs, the process required more time. Additionally, several of the teams had not yet identified community partners and consumer representatives for the TILT at the time they completed their self-assessment. Thus, the process lacked vital input from critical stakeholders for these teams. Accordingly, the MA DCF will be providing more targeted training to facilitate the self-assessment and team formation process for the next round of TILTs. For example, future training may include role-playing to highlight the importance of including the perspective of providers and consumers on the TILT. Offices that initially conducted the assessment with only Departmental staff as participants have been encouraged to complete the assessment anew to gain the perspective of external members.

Of note, Department referrals to EBT providers at agencies unfamiliar to their office have been slow to cultivate. There was a clear discrepancy in numbers of referrals to newer mental health providers as compared to those who had been working with an Area Office over time. The importance of relationships between mental health agencies and their local child welfare office in driving referrals to EBTs resonates with the previous work of the Massachusetts Breakthrough Series Collaborative and speaks to the importance of TILT teams as a springboard for developing and sustaining these critical relationships.

4.2. EBT dissemination: challenges and considerations

MCTP selected three evidence-based trauma treatments based on the evidence supporting these treatments and in consideration of their applicability to MCTP's target population of children experiencing complex trauma. The EBTs are being disseminated concomitantly, in parallel and similarly structured Intensive Learning Communities, based on the NCTSN Learning Collaborative approach (Ebert et al., 2008). The consistent structure across the three EBT Intensive Learning Communities was integral to the intensively coordinated effort to build statewide capacity in both the child welfare system and provider agency landscape. However, several important challenges related to this approach emerged during our initial implementation year and deserve close consideration.

The first issue pertains to ongoing changes in EBT training requirements. As research grows and evidence accumulates for what is needed to support effective uptake of different EBTs, treatment developers necessarily calibrate the requirements for training and credentialing. The pace and degree of calibration varies across different EBTs, as treatment developers focus independently on best practices in dissemination for their particular model. It bears noting that fidelity tools and their use in training also vary widely across EBTs (e.g., some are qualitative; others are brief or more elaborated checklists). For example, recently updated training requirements for CPP call for an 18-month timeframe along with more trainings and consultation and the use of multiple fidelity metrics to support implementation-level uptake of the model. These changes, made in response to lessons learned from a decade of dissemination experience, including large-scale efforts, represent greater financial burden on agencies and training demands on clinicians compared to TF-CBT or ARC.

Relatedly, there are substantial differences across EBTs in how or whether clinicians are endorsed as an EBT provider. Credentialing provides funders and consumers with a registry of qualified provider and allows clinicians to carry their provider status across agencies and states. Yet each EBT has its own system that has uniquely evolved over time. For example, TF-CBT recently released a new certification process, that includes an online credentialing component and exam, via which clinicians who meet criteria will be considered certified

TF-CBT therapists and included on a national registry. In contrast, CPP does not certify providers, as that connotes a level of monitoring and assessment of training that is not feasible in scaling up the model. Instead, a roster will be used to list CPP providers who received “implementation level” training (i.e., were trained to deliver the model with fidelity to improve outcomes).

In a large-scale effort such as MCTP, where multiple teams may be learning different models in a single agency, the variation within and across EBT training requirements and credentialing pathways can be confusing for stakeholders and also subtly undermine the appeal of approaches that demand a longer duration and greater intensity of training. One solution is to involve treatment developers at the outset of a multi-year dissemination effort to create ‘work around’ should modifications in training guidelines arise during the course of dissemination. Another important step is for trainers to explain variation in training requirements and credentialing processes across EBTs, with the goal of providing clinicians, supervisors, and administrators with a broader perspective on EBT development and implementation science. This foundational type of information is best relayed in the form of a face-to-face training, prior to or integrated into the Learning Community, thereby allowing an opportunity for agency administrations, supervisors, and clinicians to come together and think through the key factors that affect the spread and uptake of an EBT with the support of a trainer (e.g., the needs of subgroups of different ages or with different types of trauma exposure or challenges that may arise related to a clinician’s theoretical orientation, training, and experience). Greater emphasis on foundational ‘pre-Learning Community’ training may go far in setting the stage for agency- and clinician-level buy-in that drives effective implementation and sustainability of the model.

In our experience with the first year of EBT dissemination, the EBPAS and TISCI findings were generally positive and did not point to agency- or clinical-level issues that needed to be addressed with individualized support from the MCTP Project Coordinator, who led the senior leader track, or by the EBT trainer. It was instead the ongoing senior leader calls that were essential to identifying areas of need that necessitated adapting our implementation plans. The most urgent needs we heard were loss of staff due to clinicians leaving the agency and the need for more opportunities with trainers to deepen practice with the new model. In response, we have designed a secondary wave of dissemination that will take place after the second cohort has completed their Learning Communities. This wave will focus both on “replenishing” EBT teams at agencies from both previous cohorts who have lost staff by providing another round of training and provide ongoing support to senior leaders and supervisors who participated in prior teams in practicing the model.

Another observation based on our efforts to date pertains to the feasibility of the Intensive Learning Community approach. The greater the intensity of training and consultation efforts, the deeper the sustainability takes root. However, many mental health agencies are not equipped to handle the short-term economic costs (e.g., loss of productivity, cost for training and consultation) to the agency for the long-term payoff (e.g., clinicians trained in time-limited, more effective treatments with more demonstrated increased gains for children compared with services as usual). The financial pressures agencies experience related to lost productivity (e.g., billable hours) has been a major concern in implementing an EBT, even in the context of an initiative such as MCTP in which training and consultation is provided free of charge to agencies.

Technology has the potential to assist with removing some of these barriers. Videoconferencing and teleconferencing has allowed for consultation to be done by phone or via the internet, rather than face-to-face, and most EBTs disseminate follow-up consultation in this way. Project resources necessitated the use of teleconferencing rather than video, which can present its own set of challenges. For example, participants may feel nervous about presenting a case in front of others whom they do not know and whose faces they cannot see. For trainers, it is

similarly challenging to adjust and be responsive to participants’ learning needs without visual cues. Our team has found that participants benefit from specific guidance for how to ‘make the most’ of the consultation calls, as the format is not familiar to most and to foster engagement on the calls. One strategy we have used is to provide teams with a brief handout that delineates the format of the calls and presents helpful logistical and preparation tips. For example, the handout reminds teams that ideally clinicians and supervisors should meet 15–20 minutes prior to the call to review enrollment and questions related to implementation and that supervisors should encourage clinicians to develop a list of questions for the EBT consultant during supervision and/or team meetings throughout the month. The handout also provides reminders about the function of learning teams to engage in active listening roles focused on a particular treatment component or aspect of the model about which they will generate a set of questions for the presenter and/or EBT consultant.

In the last few years, TF-CBT has developed additional web-based resources (TF-CBT*Web* & TF-CBT*Consult*) that could serve as both an adjunct to live training and consultation and/or a possible alternative to live training and consultation. There are several active research studies currently being conducted examining the effectiveness of treatment and/or outcomes for clinicians who attend live training and consultation versus those who only receive web-based training and consultation.

4.3. Next steps

This paper has described the structure and findings regarding early implementation of the MCTP. As the initiative progresses, the evaluation will focus on the degree of implementation across the intended audiences (e.g., DCF staff, clinicians, resource parents), examining satisfaction with trainings along with knowledge and practice changes reported via post-training surveys. Analyses will explore the relationship between implementation success and factors related to child and family improvements including treatment type, as well as child and family characteristics such as placement type, trauma type, race/ethnicity, and language. We will utilize propensity matching, a statistical technique that estimates the effect of an intervention by accounting for covariates that predict receipt of the intervention. This technique reduces the likelihood of bias from confounding variables, which may occur when comparing outcomes of study participants who received the intervention to those who did not (Rosenbaum & Rubin, 1983).

We also will be undertaking a cost study with the aim of providing information to practitioners and policymakers on how best to allocate resources to address child trauma in their communities. Specifically, our cost study will focus on: (a) the total cost for implementing and sustaining trauma training and TILT teams for DCF, (b) the total cost for providers to implement and sustain EBTs, and (c) the degree to which implementing EBTs reduces costs in terms of referrals to additional services. We will assess the cost of implementation and ongoing service delivery by determining costs at multiple levels (e.g., total cost for each EBT, average cost for each EBT; average cost per clinician, staff/caregiver, and child for each EBT; total cost of implementing system change) and in a wide range of service domains (e.g., referrals to additional services; out of home placements; continuation of TILT teams). In turn, our findings may have direct implications for policy and practice (e.g., cost effectiveness of an enhanced Medicaid rate for implementing EBTs).

As real-world productivity pressures and staff turnover challenges continue to mount in the arena of mental health services, identifying creative and flexible strategies to support the spread and sustainability of EBTs to ensure timely referrals for children and youth involved with child welfare services is a much-needed direction for future implementation efforts and research. Effectiveness studies (that is, research conducted in real world settings) allow clinical researchers to examine challenges that impede uptake of an EBT with fidelity and to identify adaptations and solutions to these challenges. However, despite the number of treatment models in the field, there are relatively few

effectiveness trials (particularly rigorous comparative research studies) evaluating treatments for children with complex trauma (Fraser et al., 2013). Further, where effectiveness trials are available, analysis of the interplay of fidelity and outcomes is seldom addressed. This is a crucial research gap, reflected time and again in the field when clinician-level fidelity to an EBT is beyond the agency's capacity to implement and/or to sustain due to productivity demands, the vicissitudes of referrals, the often transient nature of children's placements and families' lives who are involved with child welfare services, and other circumstances specific to serving maltreated children.

A pressing question for the field, then, is two-fold: (1) what degree or level of model fidelity can feasibly be sustained in community-based agencies, and (2) whether this level of fidelity translates to positive treatment outcomes for children with complex trauma. Addressing the issue of "sufficient fidelity" is fundamental to sustainability. It pertains to the need for realistic fidelity benchmarks that can be attained and maintained among trained staff via ongoing monitoring by the agency. It also speaks to the needs of developers and trainers, who must identify feasible mechanisms for fidelity monitoring so as to assess and – if necessary and possible – provide further consultation or booster trainings to support sustainability after a Learning Community ends. Such research will depend on closer collaboration among treatment developers, sites who are implementing EBTs (i.e., the incubators of change), and child welfare systems. Forging this new direction in future research is an important step forward in assuring robust positive outcomes for children and youth with complex trauma involved with child welfare services.

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