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ORIGINAL ARTICLE

Implementing Evidence Based Practices for Children's Mental Health: A Case Study in Implementing Modular Treatments in Community Mental Health

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Abstract
There is strong enthusiasm for utilizing implementation science in the implementation of evidence-based programs in children's community mental health, but there remains work to be done to improve the process. Despite the proliferation of implementation frameworks, there is limited literature providing case examples of overcoming implementation barriers. This article examines whether the use of three implementations strategies, a structured training and coaching program, the use of professional development portfolios for coaching, and a progress monitoring data system, help to overcome barriers to implementation by facilitating four implementation drivers at a community mental health agency. Results suggest that implementation is a process of recognizing and adapting to both predictable and unpredictable barriers. Furthermore, the use of these implementation strategies is important in improving implementation outcomes.

Keywords Implementation · Youth mental health · Modular treatment

Introduction

Healthcare policymakers express strong enthusiasm for implementing evidence-based mental health programs and practices (Institute of Medicine 2001). This enthusiasm is complemented by an expansion of the field of implementation science, defined as "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services and care" (Eccles and Mittman 2006, p. 1). Efforts to diffuse this new knowledge (Rogers 2010) have resulted in an increased focus on the role of implementation science in the successful implementation, adoption, and sustainability of evidence-based programs and practices (EBPs) on a national (McMillen and Adams 2012) and global level (Collins et al. 2011). Despite these efforts, there remains a great deal of work to be done to improve the implementation process in community mental healthcare settings. Indeed, efforts to implement evidence-based mental health programs and practices have often been met with significant barriers to success (McHugh and Barlow 2010).

One likely factor contributing to the many barriers to implementation in community settings is the heterogeneity of the ecosystem into which EBPs are often thrust. Specifically, when looking at the youth mental health ecosystem, there are a host of different strengths, challenges, stakeholders, and settings that make one unified approach to implementation difficult to identify (Weisz et al. 2013). In response, implementation strategies have proliferated widely throughout the field (Powell et al. 2015). Recent reports suggest that there are so many existing theoretical approaches to implementation across business, healthcare,

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and other industries (Fixsen et al. 2005) that stakeholders have significant difficulty choosing the appropriate approach for their program (Nilsen 2015). In the area of healthcare improvement alone, there are upwards of 49 different frameworks (Moullin et al. 2015), and although different frameworks often share similar characteristics, they vary in the frequency and intensity of components (Tabak et al. 2012). Program directors, principal investigators, governments, and non-governmental administrators have many choices in their approach to implementation, but little advice on what challenges they may face, strengths they may build upon, strategies for measuring progress, and specific examples of what drives successful implementation.

Although previous literature has developed frameworks to conceptualize implementation (Metz et al. 2015; Damschroder et al. 2009), demonstrated that barriers exist (McHugh and Barlow 2010), and provided examples of those barriers and facilitators to the implementation of evidence-based practices (Beidas et al. 2016; Saraceno et al. 2007), very little research has provided concrete case examples of the process needed to actually overcome these barriers. The goal of this report is to provide a case example of a multi-site community-based implementation of an EBP for children's mental health that examines specific implementation efforts to overcome these barriers using a framework to facilitate success. In this paper, we take the perspective of an intermediary organization—an organization who seeks to connect community mental health centers willing to engage in training and implementation with EBP purveyors (creators and distributors of EBP material) in order to improve the care of children and families served (Franks and Bory 2015). The authors recognize that there are additional perspectives to such implementation, particularly those of service providing agencies who seek out training to improve the care of their clients, and those of EBP purveyors who seek to disseminate an EBP. This implementation initiative included the adoption of the Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, and Conduct Problems (MATCH; Chorpita and Weisz 2009), an established EBP previously listed on the National Registry of Evidence Based Programs and Practices (NREPP). Using the National Implementation Research Network Active Implementation Frameworks (Metz et al. 2015) as a guide, this manuscript illustrates the key drivers (see Fig. 1) used to implement the MATCH program in a community mental health agency. Our hope is that other organizations working to implement EBPs such as MATCH into similar contexts will benefit from what we have learned about implementation through our initiative.

Fig. 1 Implementation drivers (reprinted with permission; Fixsen and Blase 2008)

In this initiative, we hypothesize that using a structured training and coaching program, a professional development portfolio for coaching, and a progress monitoring data system will facilitate the implementation. We examine satisfaction with and attendance at the MATCH training and coaching program, utilization of the progress monitoring and feedback data system, and MATCH certification rates to understand whether typical implementation barriers can be overcome in this case example. Throughout this report and consistent with established implementation frameworks (Fixsen et al. 2005), this case example utilized the following formula for successful implementation:

$$\underset{\text{(i.e., service agency)}}{\text{Enabling context}} \times \underset{\text{(i.e. MATCH–ADTC)}}{\text{Effective intervention}} \times \underset{\text{(i.e., implementation strategies)}}{\text{Effective implementation}} = \underset{\text{(e.g., increased functioning, decreased symptoms, shorter length of treatment)}}{\text{Socially significant outcomes}}$$

In this formula, the enabling context (the *who)* is the human service organization taking part in the implementation, the effective intervention (the *what*) is the EBP utilized, and the effective implementation (the *how*) are the strategies used to put the practice in place. It is important to note that success involves multiplication in this formula. If any of the components are zero, significant outcomes are not possible.

Method

This manuscript utilizes a case study design in the context of an implementation initiative to shed light on implementation strategies used to implement programs in community mental

health settings (Powell et al. 2013). In order to maintain the methodology reporting standards for case studies, the CAse REport (CARE) guidelines recommended by Ng and colleagues were used to facilitate the presentation of these findings (Ng et al. 2014). Furthermore, to maintain consistency with the broader implementation literature, reporting guidelines and rigor assurance criteria recommended by the Standards for Reporting Implementation Studies (StaRI) Statement were incorporated into this manuscript (Pinnock et al. 2017). Data generated from the measures used in this initiative are analyzed using descriptive or univariate statistics.

Enabling Context: A Private Community Mental Health Organization

The intermediary organization initiated this implementation initiative after receiving private foundation funding from a charitable organization with philanthropic interest in improving children's mental health services in the geographic region. The intermediary organization was a private, non-profit agency affiliated with a major academic medical center and had prior experience with program implementation of MATCH. The overall mission of the intermediary organization was to increase the quality and access of children's mental health services through the implementation of EBPs, particularly in community mental health settings where it was perceived the most impact could be made. The intermediary organization had previously undertaken the implementation of other EBPs in community settings, and viewed the implementation of MATCH as a logical progression of its work, given the applicability and flexibility of MATCH in the community setting. The intermediary organization facilitated all administrative, organizational, and systems-level activities, and contracted with the MATCH training and consultation purveyors to deliver the formal MATCH training to the community mental health agency. Though this infrastructure, particularly the involvement of an intermediary agency, is not uncommon in implementation, it is not necessary for successful implementation of EBPs or MATCH more specifically. Rather, the literature has demonstrated that various organizational infrastructure models, such as the involvement of an intermediary agency, have been shown to support the implementation of EBPs and knowledge translation, leading to improved uptake and outcomes (Chuang et al. 2017; Ellen et al. 2013).

For the current study, the intermediary organization secured the support of a MATCH training and consultation purveyor before reaching out to local community agencies to determine interest in participating in the training and implementation program. Although numerous agencies in the geographic area were approached by the intermediary organization, only one agency agreed to participate. The remaining agencies cited too many ongoing initiatives (e.g., a new electronic record installation, a different ongoing training initiative) or organizational challenges (e.g., new senior leadership) to participate at that time.

This implementation program was conducted at one private community mental health center funded primarily through public reimbursement for mental health services; highly representative of the surrounding service delivery environment. The agency received standard reimbursement rates for psychotherapy services and there was no concurrent state-wide EBP initiative supporting broader implementation. Training, consultation, and some of the cost of lost productivity were subsidized by foundation funding, but there were a number of additional costs for which the agency was responsible. Consistent with issues raised by Stewart et al. (2016), agency changes to billing and documentation, senior leader involvement, administrative staff involvement, therapist preparation time for sessions, therapist' time in consultation, IT infrastructure changes, and costs for future in-house trainings for sustainability were all the responsibility of the agency.

The agency encompassed seven community mental health service delivery sites and was the largest single provider of mental health services in the geographic region. Although organizational administrators at the community mental health center cited typical concerns around clinician productivity, cost, therapist turnover, and limited resources, they cited improving the quality of care for patients, reducing patient waitlists, reducing therapist turnover, and attracting new therapists to the agency as primary reasons for choosing to participate in the implementation. Service delivery sites were located in diverse urban and suburban population centers, and services were delivered in outpatient and in-home settings. In terms of the organizational structure, each site had a local clinic director who supervised all clinical activities at the service delivery site. Regional directors oversaw the activities of approximately three to four clinic directors and their respective sites. A central administrative team provided clinical and organizational leadership, and fulfilled business administration and human resource management needs. The organization had a history of successful collaboration several years earlier with EBP purveyors in clinical trials (e.g., the agency participated in Primary and Secondary Control Training [PASCET] for youth depression with the PASCET treatment developer in the past; Weisz et al. 1997). However, only administrative staff remained from that prior collaboration; all clinical staff were new to the collaboration.

Participants were 59 mental health therapists from the community mental health organization (87% female, mean age = 29.7, range 24–50) who were recruited via supervisor selection and expression of interest in receiving the training. The subset of trainees who attended the MATCH

Table 1 Therapist demographic information

Category	Therapists (%) N = 46	Supervisors (%) N = 16
Race		
White	92	94
American Indian or Alaskan Native	2	0
Asian/Pacific Islander	2	0
Black or African American	2	0
Hispanic	2	6
Ethnicity		
Hispanic	4	6
Non-hispanic	94	94
No response	2	0
Highest academic degree		
Masters of arts/sciences in counseling	52	50
Masters of social work	30	44
Masters in education	4	0
Certificate of advanced graduate studies in mental health counseling	4	0
Masters of arts/science in forensic psychology	2	6
No response	8	0
Professional license		
None	63	38
License of social work	15	25
Licensed independent clinical social worker	7	19
Licensed mental health counselor	11	13
Licensed school adjustment counselor	2	0
Licensed alcohol and drug counselor	2	6
Professional specialty		
Counseling (psychology)	52	38
Social work	29	44
Clinical psychology	4	6
Counseling (education)	7	0
Counseling (marriage and family)	4	6
Counseling (substance abuse)	2	6
Administrative work	2	0
Primary theoretical orientation		
Behavioral	2	0
Cognitive or cognitive-behavioral	50	56
Eclectic or integrative	15	13
Existential or gestalt	2	6
Humanistic or client centered	13	6
Systems or family-systems	11	13
Somatic or body-based	2	0
Dialectical behavioral therapy	2	6
No response	3	0

supervisor training were pre-selected from the larger pool due to their roles in the agency (i.e., regional directors, site directors, clinical supervisors or individuals who were on a developmental trajectory to become clinical supervisors). Demographic data are listed in Table 1, but were unavailable for 13 therapists due to therapists not completing the demographic questionnaire or missing archival data from the agency. Participants predominantly identified as white (92%) and non-Hispanic (94%). Therapists had an average of 2.5 years of formal clinical graduate training

(beyond their undergraduate degree) and an average of 3 years of full-time clinical experience since earning their graduate degree at the time of their MATCH training. Furthermore, 37% had a license to practice independently at the time of the training. Most of the participants (78.3%) primarily worked in home-based treatment settings and the remaining participants (21.7%) primarily practiced in outpatient clinics. Additionally, 52% of participants indicated that they most identified with the professional specialty of counseling psychology. Prior training and the extent of that training in various psychotherapy techniques is reported in Table 2.

Effective Intervention: The MATCH Treatment Program

Socially significant outcomes also require an effective intervention. The Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, and Conduct Problems (MATCH; Chorpita and Weisz 2009) utilized in this implementation is a modular EBP for children and adolescents. Unlike most EBPs, which focus on single problem areas or disorders (e.g., traumatic stress only), MATCH is designed for the complex comorbidities of anxiety, depression, traumatic stress, and disruptive behavior typically encountered by real-world mental health providers. These four types of disorders represent approximately 70% of the children seen in caseloads in typical outpatient settings (Bernstein et al. 2015). The MATCH protocol is composed of 33 modules, utilizing treatment procedures corresponding to selected EBPs from the four problem areas mentioned above (e.g., Coping Cat, Primary and Secondary Control Enhancement Training, Trauma-Focused Cognitive Behavioral Therapy, Defiant Children) (Weisz et al. 2012). MATCH includes detailed flowcharts, guiding therapists as they navigate the different treatment modules to tailor treatment to each individual child. The result is a flexible and effective intervention program that can address comorbidity and be adapted to each unique child and family with whom it is applied. MATCH has been tested with community samples, including those exposed to complex trauma, in the child welfare system, and with families in crisis (Chorpita et al. 2017; Tweed et al. 2012). The MATCH training and consultation in the current study was delivered by three clinical psychologists for the first cohorts, and two of the three original trainers for the second cohort, who had 3 to 7 years of experience delivering MATCH trainings, as well as delivering MATCH directly and supervising MATCH cases. The consultations were also conducted by the latter two trainers, and the same individuals delivered all consultation meetings.

Table 2 Extent of therapists' prior training

Protocol	Not at all (%)	Lectures (%)	Used/train (%)	Used/consult (%)	No answer (%)
CBT-anxiety	28	28	19	22	2
Exposure-anxiety	33	30	20	13	4
Modeling-anxiety	46	15	17	15	7
Parent mgmt. training-attn	56	15	15	9	4
Bio/neurofeedback-attn	67	15	9	4	4
Self-verbalization-attn	65	15	13	2	4
CBT-dep	13	20	37	26	4
Interpersonal-dep	48	11	24	13	4
Expressive writing-dep	39	20	22	15	4
Parent mgmt. training-disrupt	50	15	15	15	4
Multisystemic-disrupt	59	26	2	9	4
Anger control-disrupt	61	15	11	9	4
CBT-trauma	28	30	15	22	4
Eye-movement desensitization/reprocessing-trauma	83	9	2	2	4
Exposure-trauma	52	33	5	7	4

Lectures The therapists attended a lecture on the subject without any clinical use of the protocol

Used/train The therapist received formal training on the protocol, and used it independently with client(s)

Used/consult The therapist received formal training on the protocol, and used it with clients while actively receiving consultation on those cases from the trainer

Attn attention, *CBT* cognitive behavioral therapy, *Dep* depression, *Disrupt* disruptive behavior, *Mgmt* management

Effective Implementation: The Active Implementation Frameworks (AIFs)

The last variable for socially significant outcomes is the use of effective implementation strategies and techniques. As described previously, there are a number of available implementation frameworks for structuring and guiding implementation work, and agencies may have different reasons for selecting one framework over another—including familiarity, how they may inform data collection, if implementation phases are represented, etc. (Birken et al. 2017). For the current study, we consulted the synthesis of the implementation literature conducted by the National Implementation Research Network (Fixsen et al. 2005; National Implementation Research Network [NIRN] 2017), given the reputation of NIRN in implementation work, the breadth of the constructs addressed in one of their identified frameworks, and the specific emphasis and clarity on implementation *drivers* (NIRN 2017). Implementation drivers are "core components or building blocks of the infrastructure needed to support practice, organizational, and systems change" (Metz et al. 2015, p. 416). They serve as the mechanisms of successful implementation and, combined, work towards improved outcomes for children and families. There are three categories of Implementation Drivers: Competency, Organization, and Leadership. *Competency drivers* are those components and activities that serve to develop and sustain the skills necessary for individuals to provide the program with high fidelity. *Organization drivers* are those components and activities utilized by an organization to create the environment and resources necessary for individuals with appropriate competency to successfully perform the skills with integrity. *Leadership drivers* are those competencies and activities that are engaged in by organizational leaders to effectively address barriers that may arise in the implementation of competency and organization drivers. These drivers are highly integrated—strengths in one area can mitigate weaknesses in another area. This implementation of MATCH used a number of implementation strategies consistent with these driver categories. The most salient of these are illustrated in Table 3. Additionally, this implementation utilized three specific implementation strategies to facilitate socially significant outcomes. The structured training and coaching program and the professional development portfolio were key competency driver strategies used to enhance provider competency in delivering the MATCH program. The electronic monitoring and feedback data system was an organization driver strategy used to support the implementation.

Implementation strategies

Training and Coaching Program The MATCH Structured Training and Coaching Program consists of a Direct Services curriculum and a Supervision curriculum. The Direct Services curriculum focuses on developing competency in the delivery of client care using the MATCH protocol. The Supervision curriculum focuses on developing competency in both the supervision of MATCH therapists, and also the independent training of new MATCH-naïve therapists internally at the agency in a train-the-trainer (TTT) model using the Direct Services curriculum. As shown in Fig. 2, training proceeded in two cohorts. In each cohort, trainees completed a 5-day MATCH Direct Services training for therapists followed by 12 months of follow-up phone consultation every other week with a training professional. Before the end of the Direct Services consultation series, a subset of trainees from the cohort aspiring to become internal MATCH supervisors (i.e., a train-the-trainer model) attended a 2-day MATCH supervisor training and began participating in 12 months of bi-weekly follow-up phone consultation. Demographic data for the subset of supervisors is included in Table 1. The training plan strategically staggered the clinical workshops and purposefully overlapped with the therapist and supervisor consultation call series in order to optimize learning of roles (see Fig. 2). In each cohort, the beginning of the supervisor consultation series overlapped with the last 3 months of the Direct Service consultation series in order to slowly transition 'ownership' of the consultation to MATCH supervisors-in-training and to provide coaching and support where necessary.

Professional Development Portfolio The professional development portfolio is a support resource to help organize the developmental process, to monitor and track trainee experiences and expertise, and to facilitate formative and summative evaluation of direct provider and supervisor achievements. The portfolio (Fig. 3; PracticeWise, LLC. 2013) was adapted to fit the needs of this implementation in community mental health agency.

Direct Service Portfolio The portfolio document was used to track both the learning and expertise of MATCH Direct Service providers. As each therapist cohort completed the Direct Service training in MATCH, they began accruing learning experiences toward completion of their Direct Service Portfolio. The Direct Service Portfolio included documentation of individual therapist training dates, hours, and trainer information, as well as a *Direct Service Learning Record* and *Direct Service Case Record*. The Learning Record included a list of content topic experiences covered in the Direct Service training, which when completed, demonstrates a therapist's learning *and* rehearsal experiences (e.g., role-playing with clients, completing a relevant exercise in supervision, etc.). In addition, there was a 4-level self-assessment section on 'expertise' level, which included minimum competencies (i.e., 'knowledge' level, such as

Table 3 Implementation strategies and recommendations for future use

Strategy	Structured training and coaching program	Portfolio-guided learning	Progress monitoring data system
The actor	Purveyor of MATCH delivered training and coaching program for the community agency	Intermediary organization adapted portfolio requirements and reviewed portfolios for certification Supervisor or consultant who is expert in the MATCH program and recommended by the treatment developer used portfolio to guide learning	Organization administrator selected TRAC data system and evaluated the effectiveness and utilization of MATCH using system data
Actions	Outlined goals, expectations, standards and pathways to credentialing in a professional development model Adopted a train-the-trainer model so that intervention supervisors/trainers could be developed internally within the organization Customized training and coaching program for the site Staggered clinical workshops Overlapped consultation series in order to maximize trainee learning	Developed document outlining tasks to achieve competency and guidelines for certification in MATCH Trainees used professional development portfolio document to monitor progress towards certification MATCH consultant regularly reviewed progress on certification as part of consultation MATCH consultant used trainees' professional development portfolio progress to guide learning and clarify expectations Developed checklist that outlines key tasks to obtain competence in MATCH (become certified) Trainees submitted portfolios to the intermediary for certification review	Conducted preliminary investigation of IT infrastructure during pre-project phase Selected a data system that could aggregate and present quality assurance, fidelity, implementation, and outcome variables of interest in real-time Selected a data system that enabled staff to easily access these data Provided multiple avenues for data collection (email, kiosk, in-person electronic, and written) in a centralized, web application Presented data in visual and tabular form in dashboard format to allow for quick clinical decision-making Clinicians identified client and caregiver top problems at MATCH enrollment MATCH clients were prompted to complete surveys via link every week in treatment Clinicians, supervisors, and consultants accessed data on TRAC system, reviewed progress, and discussed cases every other week throughout consultation period Organization administrator reviewed number of clients enrolled in MATCH, frequency of client survey completion, and frequency of clinician TRAC login Revisited data system functionality frequently Adapted data system throughout implementation in response to therapist needs *Suggestions* Consider collecting documentation of therapeutic principles utilized in order to assess treatment fidelity and address treatment drift Consider support diverse user interfaces such as checkboxes or smart word implementation rather than text responses to maximize user experience and ease of use Consider automating alarms to identify deterioration in symptoms, as well as alarms to increase compliance and timeliness in documentation (e.g., due dates for outcome measures or progress notes)

Table 3 (continued)

Strategy	Structured training and coaching program	Portfolio-guided learning	Progress monitoring data system
Targets of action	To increase knowledge and skills in delivery of MATCH To increase knowledge and skills of supervising in MATCH Improve clarity around pathways for certification in MATCH	To improve clinician clarity of expectations for certification in MATCH To create a resource for assessing progress of learning	To facilitate ease of access to MATCH-related data for clinicians, supervisors, consultants and administrators To provide visualizations in real time to allow for quick integration of weekly symptom data into treatment planning process To enable quick clinical decision-making in real-time To provide aggregate data on implementation progress to identify champion sites or struggling sites
Temporality[a]	Implementation	Implementation	Implementation *Suggestion* Meet with IT infrastructure before implementation launch to pilot test and identify challenges with integrating agency and data systems
Dose	Two 35-h MATCH direct services workshops Two 14-h MATCH Supervision and Consultation Workshops Two MATCH Therapist Consultation Series. Each series consisted of 25 60-min group consultations by phone every other week over 1 year Two MATCH Supervisor Consultation Series. Each series consisted of 25 60-min group consultations by phone every other week for 1 year *Suggestions* Consider costs and benefits to consultation intensity and duration. Shorter and more intense consultation schedules may be more disruptive to trainee schedules in the short-term but may have the benefit of being less vulnerable to staff attrition	Introduced professional development portfolio at start of workshop Tracked progress on portfolio during the workshop Reviewed portfolio progress on calls 6, 12, 18 and 24 as part of consultation	Administered surveys to clients weekly One time training on identification of top problems and TRAC system Ongoing support to clinicians around accessing and interpreting TRAC system data throughout consultation Clinicians, supervisors and MATCH consultants reviewed progress monitoring every other week Administrators reviewed data quarterly
Implementation outcome(s) affected[b]	Penetration: MATCH therapist and supervisor certification rate Sustainability: MATCH training of supervisors to increase maintenance of MATCH practices over time	Adoption: MATCH uptake Penetration: MATCH therapist and supervisor certification rate	Fidelity: MATCH integrity Feasibility and Adoption: MATCH uptake, client enrollment, frequency of survey completion, frequency of TRAC data system logins
Justification	Research indicates that train-the-trainer models help facilitate workforce development (Barwick et al. 2005)	Research suggests that clearly outlined expectations can improve rate of improvement towards these goals	Research indicates that outcome feedback can reduce symptom severity in patients (Delgadillo et al. 2018)

Note This table follows reporting guidelines recommended by Proctor et al. (2013) for specifying implementation strategies

[a]Temporality: Based on three stages of preparation, implementation and maintenance reviewed in paper by McGovern et al. (2013)

[b]Implementation outcome(s) affected: Based on outcomes outlined in Proctor et al. (2011) paper

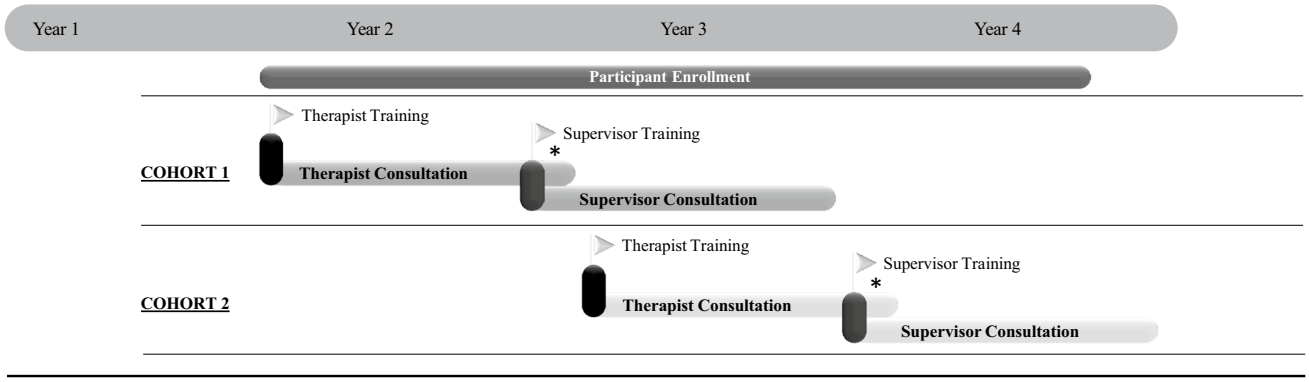


Fig. 2 MATCH structured training plan

knowledge acquired in didactic coverage and learning of topic area) through higher levels of expertise attained (i.e., 'habit' level, which describes expert knowledge and application in a given topic area that could be demonstrated in combination with other topic areas or skills). The Case Record included columns for documenting all required case material toward credentialing as a MATCH Direct Service Provider.

Agency Supervisor Portfolio Similar to the Direct Service Portfolio, supervisors who completed the MATCH supervisor trainings received a Supervisor Portfolio. The Supervisor Portfolio provided a documentation standard for the learning experience of supervisors in the provision of MATCH supervision with their supervisees, as well as the increased levels of expertise of supervisors in their own use of MATCH with clients. That is, the Supervisor Portfolio included the Direct Services Learning Record, reflective of the Direct Service Portfolio, but in which the minimum competencies for the included topics were higher (i.e., 'production' level instead of knowledge; Kataoka et al. 2014). In addition, the Supervisor Portfolio included both experience (didactic learning and rehearsal) and expertise documentation standards for the training content. Utilization of MATCH supervisor resources were to be completed and reported, as well as experience and expertise goals attained for overseeing the utilization of MATCH among their supervisees. The Supervisor Portfolio, along with the accompanying supervisee materials (i.e., Direct Service portfolio and relevant case clinical dashboards, completed supervisor evaluation), were submitted to the intermediary organization in this implementation initiative for approval and credentialing.

Electronic Monitoring and Feedback Data System This implementation used the Treatment Response Assessment for Children (TRAC) System, an electronic monitoring and feedback data system designed to collect weekly child and caregiver Brief Problem Monitor ratings (Achenbach et al. 2011) as well as client and caregiver identified Top Problems (Weisz et al. 2011). The TRAC System aggregates child and caregiver weekly symptom surveys and charted progress on a dashboard adjacent to therapist report of MATCH treatment modules utilized. The resulting dashboard (Fig. 4) enabled service providers to see client progress as well as the client's treatment plan on the same screen, providing critical information for therapists, supervisors, and administrators. For therapists, such a visual representation of client outcomes is particularly important to a modular treatment, where the selection of the next module depends on the unique response (or lack of a response) in the client. Monitoring progress through TRAC or similar systems informs clinical decision-making by helping therapists understand whether clients are responding to treatment, whether and when changes in treatment strategy are indicated, and when treatment goals have been achieved. Research has demonstrated that providing outcomes feedback to therapists in a similar manner is effective and has a direct impact on client outcomes (Bickman et al. 2011), results in faster improvement and stronger dose-response connection (Bickman et al. 2010), higher levels of child functioning, and better therapeutic relationships (Stein et al. 2010). In this initiative, TRAC was also used by supervisors to monitor therapist integrity to the MATCH treatment and to prioritize non-responding clients during supervision. Integrity in this case refers to fidelity to specific MATCH practice modules, as well as to other aspects of MATCH such as using data to make decisions about treatment progression, termination, responses to interventions; tools to structure therapy sessions, and sequencing tools for an episode of care (Regan et al. 2013). TRAC also enabled organizational administrators to perform real-time tracking of service utilization data, such as client enrollment, thera-

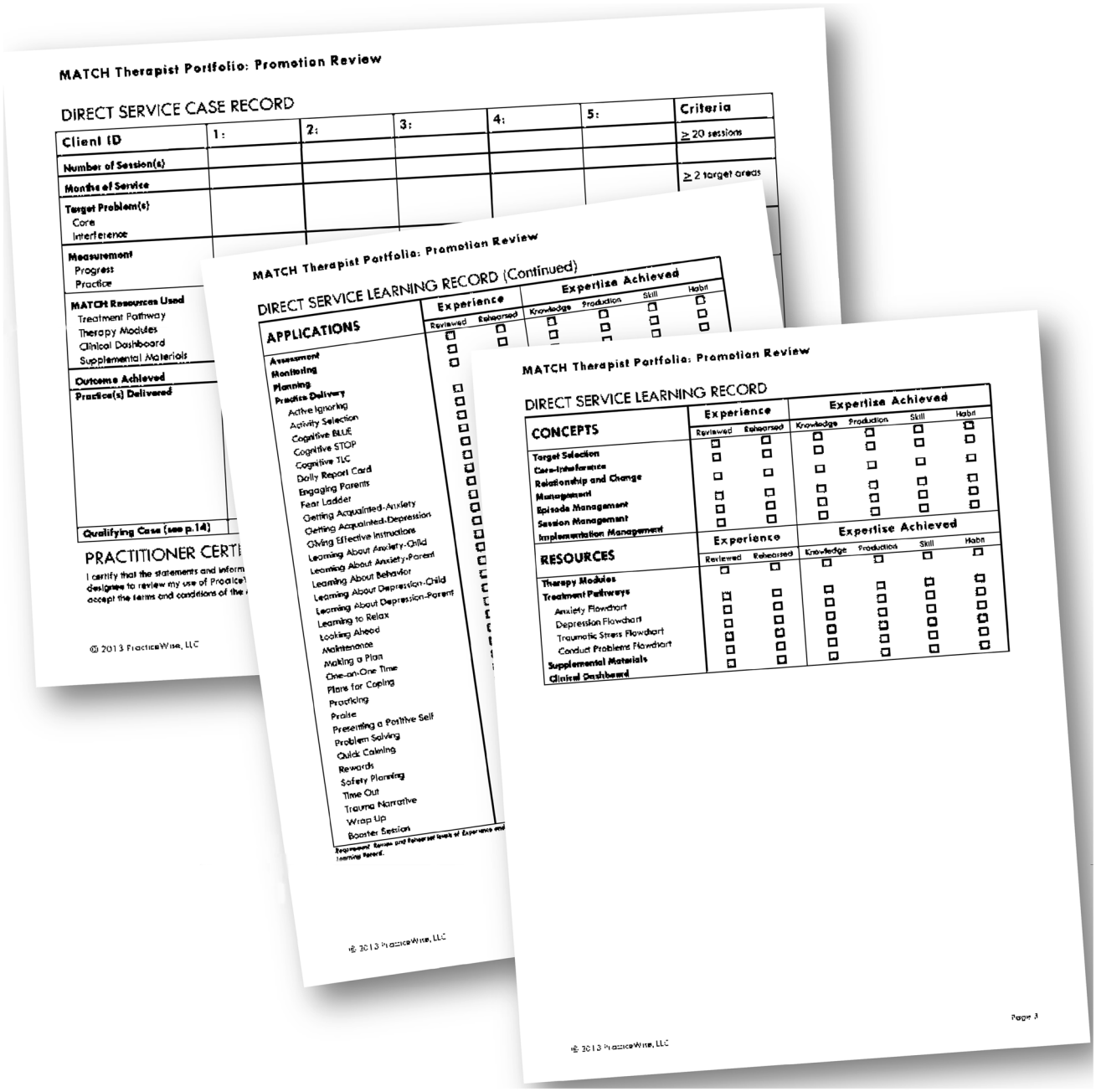


Fig. 3 Sample MATCH direct service professional development portfolio

pist caseloads, and aggregate data on caregiver engagement, as well as clinical improvement and treatment integrity. Together, service utilization, outcomes and integrity data all serve as important indicators of implementation. As part of the 5-day MATCH Direct Service training, therapists received approximately 3 h of training on the use of TRAC. Throughout the consultation series, advanced topics related to interpreting and utilizing TRAC data were provided to therapists. Training in TRAC usage for supervisory purposes was provided during the Supervisor training.

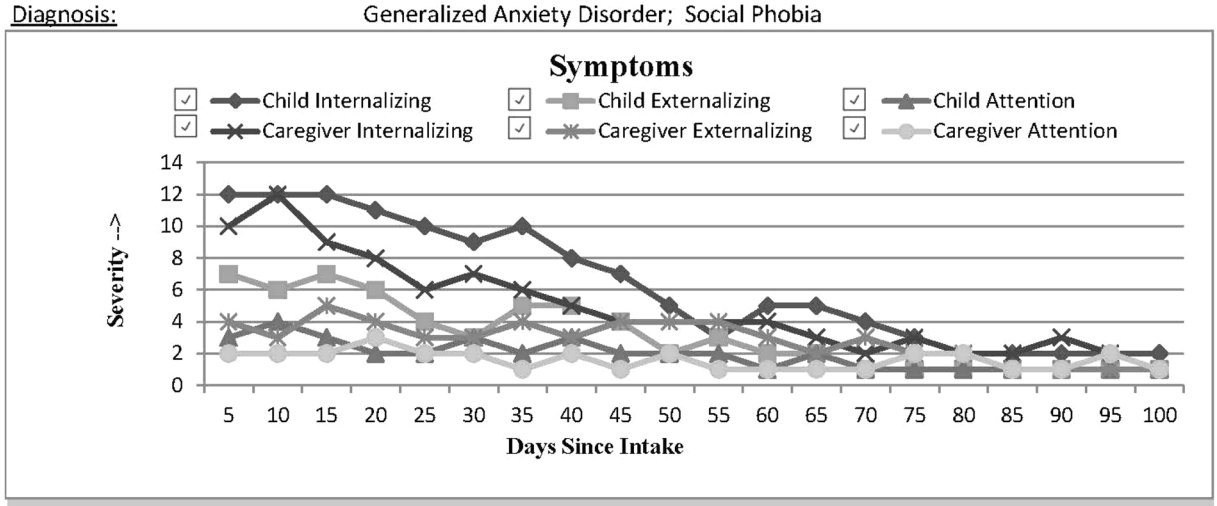
Measures

Training and Coaching

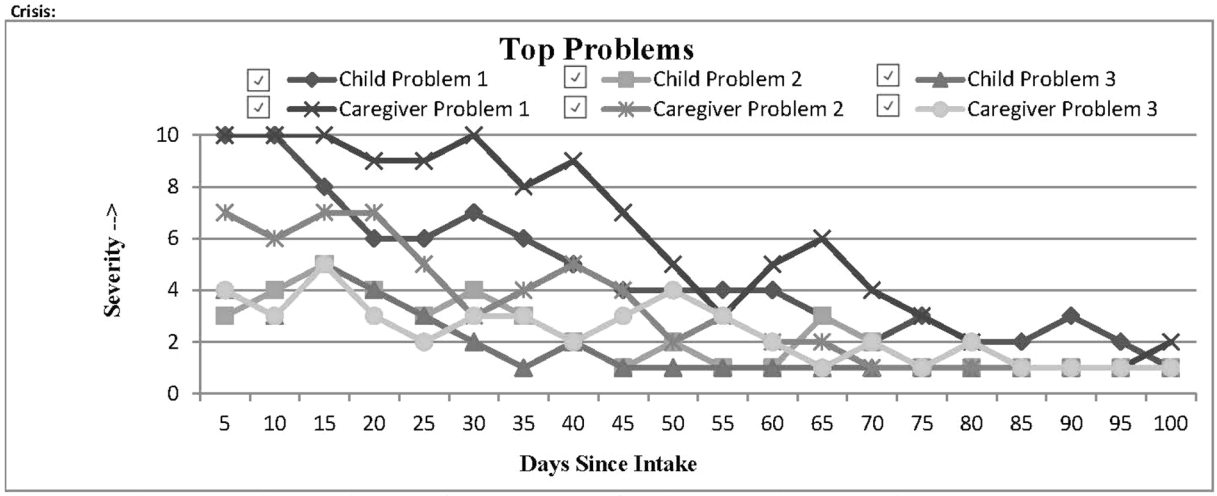
Training Satisfaction

To assess training satisfaction, trainees completed training evaluations at the end of Day Three and also directly following the 5-day MATCH Direct Services training. The mid-evaluation consisted of seven items with the overall training

Client Name:	Angela Smith	Child Age:	14.33
Caregiver Name:	Stacy Smith	Child Gender:	Female
Caregiver Relationship:	Mother	Treatment Focus:	Anxiety
Therapist Name:	Anita Hand, LICSW	Most Recent Session:	8/12/2013
Supervisor Name:	Terry Pist, LICSW		
Diagnosis:	Generalized Anxiety Disorder; Social Phobia		



Day Since Intake:	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Attendees:																				
Child	•		•	•	•			•		•	•		•		•			•		•
Mother	•		•	•	•			•	•	•	•		•		•			•		•
Modules:																				
Anxiety:																				
Getting Acquainted	•																			
Fear ladder			•	•																
Learning Anx-Child				•	•			•		•										
Learning Anx-Parent									•											
Practicing										•	•		•		•					
Maintenance																		•		
Wrap Up																				•
Activities:																				
Homework	•		•	•	•			•		•	•		•		•			•		
In-vivo										•	•		•		•			•		
Role Play				•	•			•	•											
Crisis:																				



Changes in Condition:	Client reports significantly reduced anxiety and limited avoidance. Client completed 3 practice exposures.
Response to Intervention:	Client was very insightful into personal chellenges to maintaining success. Completed What's New sheet
Plans for Next Session:	Wrap up session next. Assigned mother "Maintaining Success" handout.

Fig. 4 Sample TRAC dashboard. Deidentified data used for training purposes

("How do you rating the training overall SO FAR"). All items were scored on a Likert-type scale (*1 = Very Poor* to *5 = Excellent*). The end of training evaluation consisted of seven Likert-type scale (*1 = Very Poor* to *5 = Excellent*) items as well as a global item inquiring about satisfaction with the training ("How do you rate the training overall?"). In addition to the Likert-type scale items, trainees at each assessment time point also answered open-ended questions about the aspects of the training that could be improved as well as additional comments. Given the brevity of the 2-day MATCH Supervisor curriculum trainings, satisfaction was assessed only at the end of the training using the same measure as the one used for the Direct Services Training.

Consultation Attendance

During the consultation call series following each training, call attendance data was collected by the purveyor. To assess consultation utilization, average attendance on direct service and supervisor consultation calls was used.

Certification

As a metric of workforce development, we examined the percentage of trainees who achieved their MATCH therapist and supervisor certifications. We also calculated the average length of time to complete requirements. Based on the portfolio, MATCH Direct Service status was achieved after completion of 35 h of MATCH therapist training, 11 h of consultation over at least a 6-month period, provision of MATCH to at least two clients, and successful completion of a review of experience and expertise documents by the intermediary organization. As a preventative measure, each Direct Service call series included many more hours of consultation (e.g., 25 h) than the minimum requirement for portfolio completion to permit allowances for absences from the calls due to competing job demands. Certification required a minimum of two cases with which the therapist has utilized the MATCH program resources, across two different primary problem areas, and a minimum of 20 sessions. The portfolio, along with the case-specific clinical dashboards, were submitted to and reviewed by the local intermediary organization for approval and credentialing to provide a review environment that was adapted to the local context of the implementation.

MATCH Supervisor status was achieved after completion of the 14 h MATCH supervisor training, 12 h of consultation over at least a 6-month period, and at least 25 h of experience supervising and consulting in MATCH across a minimum of three MATCH supervisees. Additionally, certified MATCH Supervisors were required to submit three supervisor evaluation forms from MATCH supervisees, successfully promote at least two supervisees to Direct Service status, and successfully complete a review of experience and expertise documents by a MATCH training expert. The passing rates of MATCH therapist and supervisor portfolios were also reported as a metric of workforce development.

Utilization of MATCH and TRAC

MATCH Enrollment

The therapist interest level in learning MATCH suggested that this intervention would be useful, but it remained unclear how many clients clinicians would identify as appropriate for MATCH. Thus, we tabulated the number of clients enrolled by therapists in TRAC. This was used as a proxy for the fit of the intervention with the population served by trainees.

TRAC Utilization

Responses to electronic symptom surveys were solicited from clients and caregivers each week during their course of psychotherapy. Surveys were automatically sent via email, but therapists had the option to collect survey information at the start of session. Some youth who were too young to accurately respond to surveys (approximately 7 years old or younger) were excluded from survey completion. Of the remaining youth who were enrolled in the survey program, youth completed the TRAC surveys independently via email or with the therapist in the psychotherapy session. To assess utilization of the electronic monitoring and feedback data system, the number of sessions, the average number of days between sessions, the total number of surveys completed and the frequency of survey completion by youths and their caregivers were calculated from the TRAC system database.

The frequency with which therapists logged into the system was used as a metric for assessing the utilization of the survey data by clinicians. Although this does not directly assess the extent to which a therapist utilized data for each client, it provides a proxy for the extent to which they are utilizing routine monitoring data to influence their service delivery and support their training in MATCH.

Results

Results from this implementation initiative, summarized below, suggest that there were areas of successful implementation and areas where barriers obstructed the implementation. These successes and challenges were present in all drivers and strategies utilized in the initiative.

Training and Coaching

All therapists (N = 59) completed the Direct Service workshop and 18 therapists completed the Supervisor workshop. One hundred percent of therapists who started the direct service and supervisor trainings completed the trainings. Higher scores on the satisfaction questionnaire indicated greater satisfaction. Average trainee ratings of the overall training were 4.94 and 4.91, respectively, for the two 5-day MATCH Direct Services trainings. Average trainee ratings for the two 2-day MATCH Supervisor curriculum trainings were 4.86 and 4.90, respectively. These results suggest that trainees responded favorably to both the Direct Service and Supervisor workshops. Following the Direct Service workshops, trainees from the two cohorts participated in the 25-call therapist consultation series. Average trainee attendance was 19.38 (77%) and 18.4 (74%) of consultations in the two separate training cohorts. However, when accounting for therapists who left the agency or went on leave prior to the end of the call series, therapists attended an average of 23 (92%) and 22 (89%) of consultations scheduled. Following the Supervisor workshop, supervisors participated in the 25-call supervisor consultation series. Average supervisor attendance was 13.2 (52%) and 14.2 (57%) of consultation calls in the two separate training cohorts. Again after accounting for supervisors who left the agency or went on leave prior to the end of the supervisor call series, supervisors attended an average of 21 (84%) and 20 (81%) of consultations. Although therapists did receive financial support or productivity credits to attend the training, there was no financial support available to compensate them for time spent in MATCH consultation.

Twenty-seven therapists (46%) achieved MATCH certification. Three therapists (17%) were certified as MATCH supervisors after having completed the Supervisor curriculum. Given the complex nature of training, it took an average of 453.41 days for therapists to achieve MATCH therapist certification. On average, it took an additional 446.67 days to achieve MATCH Supervisor status after completing their MATCH Therapist Certification. Once trainees successfully completed their case requirements and submitted their therapist and supervisor portfolios for review, the passing rate was 100%. These results suggest that although nearly half of the trainees were able to complete MATCH therapist credentialing requirements, only a minority of the supervisor trainees who started the process graduated, and that the time to develop supervisors who can independently train and develop new MATCH therapists within the organization took approximately two and a half years.

Utilization of MATCH and TRAC

Collection of progress monitoring data was facilitated through the TRAC system described above. A total of 190 clients were enrolled by therapists trained in MATCH. This represented only approximately 5–10% of therapists' average caseloads and was purposely kept low to facilitate learning the MATCH model without becoming overwhelming. Therapists reported significantly more clients who would be appropriate fits for MATCH. The mean age of clients was 12.1 years (range 7–17 years) and 50% were female. Clients were 59% White, 30% Multi-racial, 11% Black, and 1% Asian or Pacific Islander. Clients were 27% Hispanic. A total of 3,536 MATCH sessions were completed (an average of 18.61 sessions per client). Additionally, there was an average of 12.51 days (range 2–47 days) between sessions. Responses to electronic symptom surveys were solicited from clients and caregivers each week during their course of psychotherapy. Surveys were automatically sent via email, but therapists had the option to collect survey information at the start of session. As noted previously, some youth who were too young to accurately respond to surveys (approximately 7 years old or younger) were excluded from survey completion. Of the remaining youth who were enrolled in the survey program, youth completed the TRAC surveys independently via email 25% of the time. The remainder completed their survey with the therapist in the psychotherapy session. In contrast, caregivers completed the TRAC surveys via email 57% of the time. There were a total of 5151 surveys completed on TRAC (43.5% completed by youth). Over the course of treatment, caregivers completed more surveys than youth; 15.2 surveys per caregiver compared to 11.8 surveys per youth. However, the average time between completed surveys were similar for caregivers (18.0 days) and youth (17.2 days).

Therapists logged into TRAC every 4.59 days. Multiple logins to the system per day were incorporated into this figure. This suggests that therapists were routinely accessing the TRAC data system for service delivery or to support their own learning.

Discussion

The goal of this initiative was to bring an established EBP for children's mental health to a multi-site community-based organization. In the context of a complex youth mental health ecosystem, this initiative experienced a number of successes. Trainees reported satisfaction with the trainings and participated in the majority of the consultation calls. Additionally, 190 clients were successfully enrolled in MATCH, and trainees were able to utilize TRAC in tandem with the intervention. It is likely that the structured

training and professional development portfolio, as well as the availability of an electronic monitoring and feedback data system, were instrumental to these successes. Despite these successes, however, this implementation also faced substantial challenges, some of which were expected, and others less so. For example, despite having a clearly delineated and structured workforce development program plan, the capacity to build a therapist and supervisor workforce certified in MATCH was still hindered by staff turnover and internal promotions.

Below, we discuss how the three implementation strategies delineated above (Structured Training and Coaching Program, and Professional Development Portfolio, and TRAC) potentially facilitated these successes and mitigated the barriers. Following recommended guidelines for specifying and reporting implementation strategies (i.e., Proctor et al. 2013), these three implementation strategies are summarized in Table 3. To elaborate on this table, we detail the most salient issues we encountered, offer illustrations of how we managed them, and present implementation considerations for other teams hoping to bring EBPs to similar contexts. Given our use of a structured training and coaching program, a professional development portfolio, and an electronic monitoring and feedback data system, the Active Implementation Frameworks drivers most notable to this implementation were those pertaining to the *training, coaching, data systems*, and *facilitative administration domains*. There were more drivers of implementation that had an impact, albeit less salient, for the initiative.

Training

The training implementation driver focuses on the actual material presented to new trainees. It involves the active, immediate transfer of large amounts of structural and functional information about the initiative (Beidas and Kendall 2010). The MATCH training model discussed above exhibits a number of strengths consistent with this driver. First, the MATCH training curriculum was concrete and clearly operationalized with pre-specified standards and pathways to credentialing outlined in a professional development model. It also had a structured professional development portfolio that used clear goals and standards to guide therapists in their learning. Second, the MATCH training workshop incorporated well-established adult learning principles, such as audio-visual presentations, sample videos, live modelling, and role-playing with feedback to enhance learning (Kaufman 2003). As indicated in the results, satisfaction with the training workshops was high, suggesting the structure of the workshops was a benefit to the implementation process. Third, the impact of training time, resources and effort were also carefully considered. On the organizational level, therapists were supported during their training with either a reduction in their expected productivity that month if they were salaried, or payment in lieu of treatment for those therapists who were fee for service. As mentioned, payment was facilitated through the philanthropic funding supporting the program and such payment is an important component to consider when planning future implementations. Such organizational policies helped therapists focus on the training instead of the work they were missing.

Despite notable strengths, we faced some challenges related to the venue and technology capacity that are worthy of consideration for future efforts. MATCH made significant use of electronic monitoring and feedback through the TRAC System. However, this required additional training that was difficult to incorporate into an already comprehensive clinical MATCH Direct Service training. Furthermore, the training venue was not adequately prepared for the technology burden MATCH and TRAC imposed. Over the course of the initiative, it became clear that therapists could have benefitted from more hands-on training on TRAC, such as specific examples of how to effectively collect the family's top problems, and administer and interpret assessment measures. To ensure success of the initiative, we suggest carefully considering training in supportive technology, as well as in the administration and scoring of instruments that will be used, in addition to training in the clinical aspect of the intervention.

Coaching

The coaching implementation driver is vital to achieving competency in this and other initiatives (Beidas and Kendall 2010). During coaching, the actual real-world transfer of learning in MATCH takes place. In this initiative, coaching occurred in the trainee's actual clinic where MATCH was delivered and provided the trainee with the opportunity to use MATCH skills while still working with his or her trainer closely. Through this implementation, the consultation period following the initial MATCH training highlighted a variety of considerations for future implementation initiatives. First, any implementation effort with an aim towards sustainability should incorporate regular, structured on-the-job coaching on actual cases to enhance transfer of learning after participating in a clinical workshop (Edmunds et al. 2013). Following the MATCH Direct Service training, trainees received consultation calls with MATCH training professionals for 1 h every other week for a period of 1 year. The coaching curriculum emphasized modeling and role play to enhance learning. Ongoing support in this fashion assisted trainees in their learning and helped to clarify questions and misconceptions about MATCH. Furthermore, average attendance at consultation calls for therapists was high (90.5%) when considering the competing demands placed on community mental health providers, suggesting that this

model of coaching is supportive of successful implementation and feasible in the context of a community mental health center. However, it is during this prolonged consultation where the impact of therapist attrition became most apparent. A number of therapists (n = 9) left the agency for other professional opportunities or family obligations during the consultation period such as a new clinical position at another agency within the region, a new clinical position at another agency outside the region, a spouse or partner received a new job outside the region, or went into private practice. One individual left the field of mental health counseling altogether. Furthermore, several supervisors (n = 8) left the agency during their consultation period for other clinical positions within or outside the region or to go into private practice. Although research has shown that extended consultation is vital to the use of new techniques in practice (Beidas and Kendall 2010), staff turnover and promotions interfered with the ability of trainees to complete MATCH Therapist and Supervisor certification requirements. This difficulty only became more pronounced for the development of supervisors, as supervisors must make extended commitment to professional development. It is also important to note that the frequency of consultation in previous trials of the MATCH program was shorter (i.e., weekly throughout the consultation period) and provided on an individual basis. This illustrates an important consideration when balancing consultation intensity versus sustainable implementation. Shorter and more intense consultation schedules (i.e., weekly consultation) may be more disruptive to trainee schedules in the short-term but may have the benefit of being less vulnerable to staff attrition if trainees can achieve credentialing more quickly. Furthermore, a group format for consultation may be more cost effective. On the one hand, the less frequent and less individualized consultation in this initiative may have made the transfer of learning process less effective. Yet at the same time, less frequent group consultation poses much less of an imposition of therapists' and trainers' time and may significantly help facilitate successful implementation.

The professional development portfolio document also served as a helpful resource for outlining clear expectations, guiding learning and monitoring progress toward certification. This document helped to clarify misconceptions about the timeline and goals for MATCH in the agency. Additionally, portfolios were reviewed every few consultation calls, which facilitated monitoring of progress on certification standards. Additionally, this portfolio review simultaneously informed selection of learning activities for consultation calls that were relevant for the developmental level of the therapists. These implementation strategies are likely one reason why nearly half of trainees were able to complete their certification, when excluding individuals who left the agency prior to the opportunity to submit for certification. Again, however, it is worth noting that therapist attrition (which tends to range between 25 and 50% in a given year in community based mental health agencies across the nation; Aarons and Sawitzky 2006; Gallon et al. 2003; Woltman et al. 2008) was the greatest reason for not becoming successfully certified, underscoring the importance of factoring attrition into implementation strategies (Glisson et al. 2008). Though some of this attrition was due to positive factors, such as promotions, they nevertheless impacted therapists from completing their certification. Regardless of the reason for the attrition, anticipating attrition and having a structured workforce development plan that clearly outlines how therapists-in-training and supervisors-in-training can still meet credentialing standards even when there has been attrition may facilitate successful implementation and sustainability of the program. An agency supervisor model also helps to ensure that therapists mid-way in training have a pathway for completing their credentialing requirements even when turnover occurs at the supervisor level.

The impact of coaching time, resources, and effort should be carefully considered in the implementation of any coaching model given that community therapists often have many competing demands (Beidas et al. 2015). This was especially apparent in the training of supervisors, who often bear the largest burden in community mental health centers. As the results indicate, attendance at supervisor consultation calls dropped significantly during the supervisor series. This was partly due to the fact that some supervisors left the agency prior to the end of the consultation. However, even when accounting for this attrition, supervisors still had a more difficult time attending consultation (82.5% attendance), likely due to the competing demands of their positions at the organization. Indeed, the time commitment for ongoing consultation proved to be one of the most difficult challenges of our MATCH initiative. In addition to the bi-weekly consultation calls, trainees met in between to prepare for calls and to practice skills. This took therapists away from seeing clinical cases, impacting productivity across the agency. Fourth, we found that adopting an overlapping training series had many benefits. In the train-the-trainer model used in our MATCH initiative, bi-weekly supervisor consultation calls overlapped with the end of the Direct Service consultation call series. During this 3-month period, agency supervisors began taking the lead on calls from the expert MATCH consultant but still had the support of this consultant when complex issues arose. Additionally, these agency supervisors also had their own private consultation to discuss difficult supervisory issues that came up during the call. This overlapping training structure allowed supervisors to gradually take over more responsibility while having the support of the consultant. Furthermore, structuring the consultation in this manner helped the agency to identify barriers to implementation and then provided an opportunity

to adapt to these problems and refine procedures for testing with a second cohort of trainees.

Electronic Monitoring and Feedback Data System

Using data to continuously monitor progress and assess quality is an important driver of success for any new program (Lambert 2010). This MATCH initiative was able to leverage its proprietary TRAC Monitoring and Feedback data system to serve in this role. There are a multitude of monitoring and feedback data systems currently available to organizations with enhancements being developed regularly, making selection and utilization of a decision-support data system difficult for administrators (Lyon and Lewis 2016). Through this implementation, four considerations arose in the use of these data systems to enhance implementation, and a few issues arose as barriers. First, the results of this program suggest that data systems need to be selected so that both administrators and individual providers have access to the usable data for their roles. Second, the features of the data system (a task too voluminous to address here; see Lyon and Lewis 2016) must allow for quick and easy collection and visualization of data in ways that promote actual interaction with the data. The results summarized above seem to indicate that youth and caregivers will feasibly provide data about once every other week. Although youth users, especially when younger, tend to complete surveys with the assistance of their therapist, the majority of caregivers found independent electronic completion of surveys amenable. Third, even the most advanced data system will fall short of facilitating implementation if data collected by these systems are not utilized by administrators, supervisors, and providers through regular reports of implementation measures (e.g., enrollment numbers, outcome indices). It was encouraging to see that providers were logging into the TRAC system at least one per week, suggesting that providers found the system useful and feasible in the community mental health setting. Lastly, organizations wishing to drive implementation must have a way to integrate these data systems into their daily operations and treatment activities. When this integration is absent, especially when organizations are making use of parallel electronic health records, barriers to use of decision-support data systems can be significant. In this MATCH implementation, sites within the organization were most successful when burden was removed from the providers by using TRAC to replace documentation requirements instead of adding requirements and/or being duplicative. This integration was initiated by therapists themselves as they were being trained in the TRAC system. They recognized the overlap in documentation and approached the intermediary organization to create slight modifications to the TRAC documentation in order to comply with all state documentation requirements. With these changes made, the intermediary organization approached the agency administrators with the option to eliminate duplicative work, and the administrators were happy to accommodate the request now that state requirements were met.

Additional Drivers of Implementation

Across this initiative, the role of facilitative administration in the successful use of implementation strategies was of paramount importance. Administrators are in a unique positon to facilitate change across an organization (Stetler et al. 2006) and enable the use of specific strategies such as the ones described above to assist implementation. For example, administrative efforts can be directed towards making the transfer of learning environment as adaptable as possible to the implementation strategies, problem solving barriers when they arise, proactively taking steps to reduce administrative burden on therapists, clearly communicating with their team, and adjusting policies and procedures when necessary. A number of considerations arose in this implementation of MATCH where facilitative administration provided a key to successfully using the implementation strategies described. As indicated above, the MATCH training and coaching program is intricate with many pieces, including extended time for the transfer of learning to occur. Such a training period is complicated by the well-established turnover of therapists in community mental health settings. During such periods, administration played a key role in facilitating the effective transfer of learning. Creating time and space for providers to meet formally and informally to discuss learning is a perfect example of how administrators facilitated MATCH learning during this implementation. Administrators actually participating in both the training and transfer of learning process was another especially facilitative strategy. Training administrators in MATCH helped them to understand the unique needs of the program, areas where the organization must adapt to meet those needs, and organizational strengths that could be leveraged to help MATCH training succeed. Additionally, during this program, the administration facilitated adaptations to billing and productivity expectations of providers in order to allow providers time and support to build their new treatment skills. As an example, administrative involvement enabled quick detection of and problem solving for a roadblock to MATCH training and certification: role compatibility. Given that trainee role compatibility was not assessed before training began, a subset of the trainees did not have a caseload to support proper transfer of learning. As a result, some trainees could not seamlessly implement MATCH with existing cases or have space in their caseloads to add cases during the consultation period. Given that administrators participated in the training, they were able to flag and improve trainee role compatibility for cases where this was a central issue.

Such top-down administrative facilitation creates a strong organizational culture that is supportive of the learning initiative. Lastly, this MATCH program illustrated that when training providers across a larger organization, administrators have an important role to play in facilitating the implementation across the entire agency (e.g., managing communication of key implementation messages, using experiences at one site to influence another). They can create efficiencies across sites when possible, and recognize trends at one site that might improve implementation at another site. Such actions can help work towards, for example, reducing staff turnover, which is a well-established barrier to successful implementation.

Additionally, the administrators representing this community agency still faced many of the financial barriers typical of implementation in a community mental health center. However, it is important to note that successful implementation is not without cost. This program did have the benefit of external funding to support the implementation, including the cost of training, consultation, TRAC software, MATCH subscriptions, and some of the cost of reductions in productivity for therapists. Although the presence of funding to support this program may appear to limit the generalizability of this work, the availability of financing is a key factor in implementation (Aarons et al. 2011; Bond et al. 2014). It is the intention of this manuscript to provide an example of how a state, county, or other agency administrator might undertake a similar implementation program *when* financing is secured to improve the quality of services.

Limitations and Future Considerations

The predominant viewpoint expressed in this paper is that good implementation may be facilitated by an intermediary with the knowledge, skills, and abilities to anticipate problems and help assess, plan, and implement solutions to resolve conflicts that arise. However, there are a number of different viewpoints from the perspective of treatment purveyors and service sites. An alternative view is that implementation is an organizational learning process and it is productive to locally encounter and solve problems (i.e., there are desirable difficulties, Bjork and Bjork 2011). Conceptualizing this implementation differently, the goals of the first implementation cohort were largely to make the problems visible and build the knowledge, skills, and abilities within this organization to productively respond to those problems. However, readers may ask "how would an organization have the knowledge to implement without building those knowledge, skills, and abilities?" This paper provides a perspective on selecting an organization that has the knowledge, skills, and abilities already. Yet, there is also the view that even if a purveyor or developer are procured, there is an "organizational learning" process that involves encountering and solving predictable conflicts firsthand.

The authors recognize that financing is an influential factor in implementation (Aarons et al.) Although replication of this initiative requires a funding source, community mental health organizations may be incentivized to allocate a proportion of their annual training budget towards an initiative like this if the long-term benefits for the organization outweigh the short-term monetary costs. In this effort, stakeholders were willing to commit additional financing because they saw the potential value of cultivating MATCH clinicians and supervisors who could train and credential future MATCH therapists for the organization. In an effort to incentivize staff toward this goal, clinicians received a higher rate of compensation per encounter if they achieved MATCH therapist status. Agencies with training budgets are often making decisions about how to spend precious training dollars, and implementation projects that align with the organization's vision may be more likely to procure funding.

One additional limitation of this implementation effort is that we did not systematically collect information about the perceived utility of consultation calls as well as the barriers to attending calls. We also know little about the barriers to certification from the perspective of trainees and administrators. Future implementation efforts should consider learning about these factors in an effort to improve implementation and adoption. Learning about these barriers can help improve implementation studies in the future.

In summary, it is the hope that this manuscript serves as an organizational case study that provides a process description of how an organization went about solving a set of predictable problems (identified in the implementation literature) using implementation strategies and resources available within the MATCH toolkit. Future implementation initiatives for children's community mental health need to be studied in order to understand how local context and implementation frameworks can interface to support more successful utilization and sustainability of EBPs.

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Compliance with Ethical Standards

Conflict of interest Drs. Chorpita and Daleiden are partners in PracticeWise, LLC, which publishes the MATCH-ADTC program referred to in this study. Drs. Stanick and Chiu were consultants for PracticeWise, LLC at the time of the study.

Ethical Approval All procedures performed in this study were conducted in accordance with the ethical standards of the first author's

institution and with the 1964 Helsinki declaration and its later amendments.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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