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Developing a systematic evaluation approach for training programs within a train-the-trainer model for youth cognitive behavior therapy

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ABSTRACT

The purpose of this small pilot study was three-fold: (a) to begin development of a coding scheme for supervisor and therapist skill acquisition, (b) to preliminarily investigate a pilot train-the-trainer paradigm for skill development, and (c) to evaluate self-reported versus observed indicators of skill mastery in that pilot program. Participants included four supervisor–therapist dyads ($N = 8$) working with public mental health sector youth. Master trainers taught cognitive-behavioral therapy techniques to supervisors, who in turn trained therapists on these techniques. Supervisor and therapist skill acquisition and supervisor use of teaching strategies were repeatedly assessed through coding of scripted role-plays with a multiple-baseline across participants and behaviors design. The coding system, the Practice Element Train the Trainer – Supervisor/Therapist Versions of the Therapy Process Observational Coding System for Child Psychotherapy, was developed and evaluated though the course of the investigation. The coding scheme demonstrated excellent reliability (ICCs [1,2] = 0.81–0.91) across 168 video recordings. As calculated through within-subject effect sizes, supervisor and therapist participants, respectively, evidenced skill improvements related to teaching and performing therapy techniques. Self-reported indicators of skill mastery were inflated in comparison to observed skill mastery. Findings lend initial support for further developing an evaluative approach for a train-the-trainer effort focused on disseminating evidence-based practices.

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Over the past several decades, evidence has accumulated to suggest that some psychosocial interventions for youth consistently outperform others (Silverman & Hinshaw, 2008; Society of Clinical Child and Adolescent Psychology & Association for Behavioral and Cognitive Therapies, 2009). Despite the body of research supporting the efficacy of these evidence-based practices (EBPs), they remain underutilized in community-based treatment settings (Hoagwood & Olin, 2002; Reimer, Rosof-Williams, & Bickman, 2005). In essence, treatment efficacy research has thus far outpaced the empirical understanding of how to implement EBPs (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005), leading many to shift research focus towards dissemination and implementation (DI) science.

The empirical investigation of provider training strategies has become a central area of interest. The results of Beidas and Kendall's (2010) recent provider training review indicate that passive learning strategies (e.g., didactic presentations, seminars) are effective at most in changing provider attitudes and knowledge, but do not impact actual behavior. Trainings using active learning strategies (e.g., role-playing, modeling, practice) were found to be the most effective in influencing provider's subsequent behaviors. Overall, the latest empirically-driven training recommendations dictate the use of time-intensive, multi-modal learning experiences requiring long periods of time and significant organizational-level support (Beidas & Kendall, 2010; Herschell, Kolko, Bauman, & Davis, 2010; Rakovshik & McManus, 2010). Research has indicated that typical public sector provider training does not meet this rigorous standard (Fixsen et al., 2005; Institute of Medicine, 2010). Accordingly, it has been suggested that implementation efforts will be most effective if they are carefully adapted to fit the resources and processes of the local environment (cf. Damschroeder et al., 2009; Fixsen et al., 2005).

Two innovative implementation concepts have been developed that may facilitate empirically-based training recommendations to larger, community-based settings. First, Chorpita and colleagues

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(Chorpita, Becker, & Daleiden, 2007; Chorpita & Daleiden, 2009b; Chorpita, Daleiden, & Weisz, 2005) have innovated the process of EBP identification by specifying common elements appearing across effective treatment protocols. Practice elements, or common elements, have been defined as discrete therapeutic techniques that are part of a larger treatment protocol (Chorpita & Daleiden, 2009b; Chorpita et al., 2005, 2007). For example, exposure and cognitive restructuring appear as central components within the majority of evidence-based protocols targeting anxiety for youth (Chorpita & Daleiden, 2009b). The use of a clinical decision-making algorithm to flexibly apply these effective common elements is referred to as modularity (Chorpita & Weisz, 2005). Empirical support for both the practice element approach to identifying EBPs and the clinical application of modularity is steadily accumulating (Chorpita & Daleiden, 2009b; Weisz et al., 2011). Importantly, the move towards modularity creates the opportunity to train providers in smaller, more manageable units.

A second potentially useful innovation for adapting empirically-based training recommendations to large systems is the train-the-trainer paradigm. This model proposes a pyramid training structure in which master trainers teach both the content of EBPs along with the principles of active learning strategies to supervisors, who then train their therapists on EBPs utilizing empirically-supported training methods. The train-the-trainer model shifts the focus of training to mental health supervisors, thereby drastically reducing the time, resources, and staff necessary to effectively train all front-line therapists (cf. Demchak, Kontos, & Neisworth, 1992; Ducharme, Williams, Cummings, Murray, & Spencer, 2001; Hundert & Hopkins, 1992; Schlosser, Walker, & Sigafoos, 2006). Although this paradigm may prove fruitful, it has been seldom investigated within the context of youth EBP implementation.

Our state's Child and Adolescent Mental Health Division's (CAMHD) Evidence-Based Services Committee recently began a small train-the-trainer demonstration project within its youth system of care. The Local Champions Demonstration Project (LCDP) was developed to set the stage for the long-term goal of balancing the need for empirically-based training recommendations against public sector resource limitations. Recognizing the impracticality of providing high quality training to the hundreds of front-line providers within CAMHD, the ultimate aim of the LCPD is to develop "local champions" of EBP training within each major community mental health organization. As an initial step towards this goal, the LCDP utilized empirically-driven training strategies to teach a small group of mental health supervisors several practices derived from the evidence base, and then had these individuals in turn train at least one of their direct-service providers. Outcomes were monitored with videotaped confederate role-plays and analyzed with a stringent observational coding protocol that was developed and evaluated for inter-rater reliability through the course of the demonstration project. The coding scheme included observable indicators of the supervisors' and therapists' abilities to implement the EBPs, along with the supervisors' use of active teaching strategies in the training of their therapists. This analytic strategy was utilized in response to research indicating that therapists' self-reported behavior changes following training does not typically align with actual behavior change (Beidas & Kendall, 2010).

There were three major foci for the present study. First, and of central interest, we describe the development of a behavioral observation coding system for supervisors' teaching and therapists' technique behaviors. We also begin preliminary psychometric investigation into this coding system through calculating interrater reliabilities for its various scales, with a sample of youth community mental health supervisors and therapists. Building upon one of the latest psychometrically tested observational coding systems (Therapy Process Observational Coding System for Child Psychotherapy Strategies Scale; TPOCS-S, McLeod & Weisz, 2010) and the discrete structure afforded by Chorpita and Weisz's (2009) Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems (MATCH-ADTC), our first hypothesis predicted interrater reliability coefficients in the good (0.60–0.74) to excellent (0.75–1.00) range (Cicchetti, 1994). The second focus for this paper examines the effects of the initial demonstration project with this same participant sample, using the newly created observational coding system. Our hypotheses for this second portion of the study predicted improvements in supervisors' abilities for teaching the selected techniques of problem-solving and exposure (second hypothesis), supervisors' teaching style during their teaching of those techniques (third hypothesis), and therapists' abilities for implementing these techniques (fourth hypothesis). The third area for the present study concerned the relationship between self-rated and observed performances for supervisors and therapists. Given Beidas and Kendall's (2010) findings that therapists tend to overrate their behavior changes post-training, our fifth hypothesis predicted that both supervisors and therapists would respectively overestimate their performances for teaching and delivering therapeutic techniques.

Method

Participants

The two major types of participants in the current study were youth mental health supervisors and therapists. Supervisors and therapists were recruited for voluntary participation from local child-serving community mental health. Supervisor and therapists participated as dyads, naturally paired together through an existing supervisor–supervisee relationship. There were no study dropouts and all participants (four dyads; $N = 8$) initially expressing interest participated fully. Randomization, blinding, and masking procedures were not relevant given the single-subject design discussed below. Of the eight participants, four (50%) were female and the mean age reported was 39.5 ($SD = 15.2$).

Dyad 1

This supervisor was of Native Hawaiian and other ethnicities, and reported 13 years of clinical experience after receiving her Psy.D. in clinical psychology. She supervised five therapists on an ongoing basis, and also provided some treatment services herself. She self-reported an eclectic approach to therapy. This therapist reported a mixed ethnic background and six months of clinical experience after receiving his Masters in Social Work. His caseload typically ranged from seven to eight youth, and he reported receiving approximately one total hour of supervision per week. He reported cognitive behavioral therapy as his primary theoretical orientation. Both participants worked at a community-based residential treatment facility.

Dyad 2

This supervisor was a White woman, who reported three years of clinical experience since respecializing her Ph.D. to clinical psychology. She supervised six school-based behavioral health care therapists, and provided a total of five hours of supervision per week. She also provided some direct assessment and treatment services, and reported an eclectic approach to therapy. This therapist was a White woman with three and a half years of clinical experience after receiving her M.A. in counseling. Her active caseload was 18, and she received approximately one total hour of supervision per week. Her self-reported primary theoretical orientation was family-systems therapy. These participants were