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Inviting Providers to the Table: Provider Perspectives on the Implementation of Evidence-Based Practices

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Inviting Providers to the Table:

Provider Perspectives on the Implementation of Evidence-Based Practices

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Psychology

by

Michael Edward James Reding

2016

ABSTRACT OF THE DISSERTATION

Inviting Providers to the Table:

Provider Perspectives on the Implementation of Evidence-Based Practices

by

Michael Edward James Reding

University of California, Los Angeles, 2016

Professor Bruce Frederick Chorpita, Chair

Given the established underutilization of evidence-based practices (EBPs) for youth mental health disorders, the effective dissemination and implementation of EBPs has become a focal point for researchers, policymakers, and administrators. Los Angeles County (LAC) is on the leading edge of policy-influenced mental health service delivery reform. While a surge in EBP training and implementation support offers community providers new opportunities to incorporate EBP into their clinical work, these providers also find themselves left to navigate an increasingly complex and demanding practice environment. During this period of significant change in the nation's largest county mental health system, it is critical to understand the experiences of the providers tasked with delivering innovative services to those in need. This dissertation sought to explore providers' implementation experiences through a series of three studies. The first study examined differences among provider attitudes toward six specific EBPs being implemented in LAC, demonstrating that providers could reliably differentiate the appeal

and limitations of the various EBPs over and above their attitudes toward EBP in general. Additionally, appealing features of an EBP were associated with self-reported use of that EBP. Study two used an inductive coding approach to explore providers' open-ended feedback on their training and implementation experiences in LAC, revealing a predominance of negative comments overall. However, the valence of feedback varied considerably across response categories, with unanimous negativity regarding the local treatment context as compared with more balanced comments about the fit and therapeutic consequences of available EBPs. Study three employed a focus group approach to solicit provider experiences implementing an innovative modular EBP during a randomized clinical effectiveness trial in Los Angeles. Qualitative feedback indicated that the treatment's fit to diverse client populations and ongoing consultation support were of central importance during the implementation process. Design-focused and supportive strategies to address provider concerns were proposed. Taken together, the studies comprising this dissertation suggest that stakeholders may improve the implementation process through enhancing EBP design in accordance with provider feedback (e.g., improving client fit), addressing contextual demands that interfere with providers' ability to implement EBP, and continuing to invite provider feedback throughout the implementation process.

The dissertation of Michael Edward James Reding is approved.

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2016

DEDICATION

To you, Dad. I love you.

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ACKNOWLEDGMENTS

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SELECTED PUBLICATIONS

Brown, T. E., Reding, M. E. J., & Chorpita, B. F. (2015). The uncertain steps on the certain path to progress: Some guesses about the future of cognitive and behavior therapies. *The Behavior Therapist, 38*(6), 144-150.

Guan, K., Levy, M. C., Kim, R. E., Brown, T. E., Reding, M. E. J., Rith-Najarian, L., Sun, M., Lau, A. S., & Chorpita, B. F. (2015). Managing in-session "surprises:" Identifying provider responses to emergent life events during evidence-based treatment implementation. *Administration and Policy in Mental Health and Mental Health Services Research*, 1-13. doi:10.1007/s10488-015-0692-3.

Stanick, C., Yoman, J., Gallo, K., Trent, L., Reding, M., Kim, R., Guan, K., & Steinfeld, B. (2015). Dancing with ourselves? Reflections on increasing stakeholder involvement in ABCT. *The Behavior Therapist, 38*(2), 38-42.

Park, A. L., Tsai, K. H., Guan, K., Reding, M. E. J., Chorpita, B. F., Weisz, J. R., & the Research Network on Youth Mental Health (2015). Service use findings from the Child STEPs effectiveness trial: Additional support for modular designs. *Administration and Policy in Mental Health and Mental Health Services Research*, 1-6. doi:10.1007/s10488-015-0625-1.

Reding, M. E. J., Chorpita, B. F., Lau, A. S., & Innes-Gomberg, D. (2014). Providers' attitudes toward evidence-based practice: Is it just about providers, or do practices matter, too? *Administration and Policy in Mental Health and Mental Health Services Research, 41*(6), 767-776. doi:10.1007/s10488-013-0525-1.

SELECTED PRESENTATIONS

Reding, M., Guan, K., Regan, J., Palinkas, L. A., Lau, A. S., & Chorpita, B. F., (2015, November). *Provider Experiences Implementing Evidence-Based Practice in Los Angeles County.* In A. Kotte (Chair), Organizational and Mental Health Provider Characteristics Associated with Implementation of Evidence-Based Practices (EBPs) and Monitoring and Feedback Systems (MFS). Paper presented at the 49th Annual Convention of the Association of Behavioral and Cognitive Therapies, Chicago, IL.

Reding, M., Chorpita, B., Lau, A., & Innes-Gomberg, D. (2014, November). *Providers' Attitudes Toward Evidence-Based Practice: Is it Just About Providers, or Do Practices Matter, Too?* In A. Jensen-Doss (Chair), Understanding the Importance of Provider Knowledge and Attitudes in the Implementation of Evidence-Based Practices. Paper presented at the 48th Annual Convention of the Association of Behavioral and Cognitive Therapies, Philadelphia, PA.

Reding, M., Chorpita, B. F., & Lau, A. S. (2013, March). *Results from a Survey on Therapists' Attitudes Toward Evidence-Based Practices*. Invited presentation at Los Angeles County MAP Symposium, Los Angeles, CA.

Reding, M., Eng, T. J., Escobar, I., Cho, E., & Chorpita, B. F. (2012, November). *What about the Treatments in Evidence-Based Treatment? Insights from EBP system reform in children's mental health services*. Poster presented at 46th Annual Convention of the Association for Behavioral and Cognitive Therapies, National Harbor, MD.

Reding, M., Dour, H. J., Chorpita, B. F., & Weisz, J. R. (2011, November*). Therapists and Evidence-Based Practice: Exploring the Relationship Between Attitudes and Satisfaction*. Poster presented at 45th Annual Convention of the Association for Behavioral and Cognitive Therapies, Toronto, ON, Canada.

Reding, M., Wolitzky-Taylor, K., & Craske, M. G. (2010, March). *Endorsement of Overbreathing Symptoms across Anxiety Disorders in Primary Care*. Poster presented at 30th annual conference of the Anxiety Disorders Association of America, Baltimore, MD.

CHAPTER 1:

Providers' Attitudes Toward Evidence-Based Practices:

Is It Just About Providers, or Do Practices Matter, Too?

ABSTRACT

Evidence-based practice (EBP) attitudes were measured in a sample of Los Angeles County mental health service providers. Three types of data were collected: provider demographic characteristics, attitudes toward EBP in general, and attitudes toward specific EBPs being implemented in the county. Providers could reliably rate characteristics of specific EBPs, and these ratings differed across interventions. Preliminary implementation data indicate that appealing features of an EBP relate to the degree to which providers use it. These findings suggest that assessing EBP-specific attitudes is feasible and may offer implementation-relevant information beyond that gained solely from providers' general attitudes toward EBP.

Keywords: evidence-based practice, provider attitudes, implementation, community mental health

INTRODUCTION

Over the past few decades, researchers have established considerable support for the efficacy of evidence-based practices (EBPs) in real-world settings (McHugh & Barlow, 2010). In addition to yielding superior client outcomes relative to alternative treatments, the uptake of EBPs has been associated with better workforce outcomes, such as reduced burnout, among community providers (Aarons, Fettes, Flores Jr., & Sommerfeld, 2009). A Delphi poll of psychotherapy experts in 2000 predicted that evidence-based psychotherapies would become mandated and, by extension, widely implemented by 2010 (Norcross, Hedges, & Prochaska, 2002). Although progress has been slower than anticipated, there are signs that reform in public mental health systems is beginning to result in the increased adoption of EBPs in community settings (Kazdin, 2008; Cooper & Aratani, 2009).

By 2008, 12 states had mandated the use of EBPs in public mental health systems, with eight of these states promoting, supporting, or requiring specific EBPs to be implemented statewide (Cooper et al., 2008). Ninety percent of state mental health authorities report implementation strategies to install EBPs, with 12% having fiscal policies mandating EBP implementation through reimbursement practices (Cooper & Aratani, 2009). There are also national and state efforts to facilitate the implementation of EBPs in community settings (e.g., the Child and Family EBP Consortium; California Institute of Mental Health). Nevertheless, even in the context of policy reforms and widespread implementation efforts, research suggests that dissemination is not usually sufficient to guarantee actual implementation and sustained use of EBPs in community settings (Jensen-Doss, Hawley, Lopez, & Osterberg, 2009).

Among the most well examined barriers to adoption are provider attitudes toward EBP. In particular, the work of Aarons and colleagues in validating and norming the Evidence-Based

Practice Attitude Scale (EBPAS; Aarons, 2004; Aarons et al., 2010) and the expanded EBPAS-50 has provided researchers with a comprehensive set of attitude dimensions with a reliable factor structure (Aarons, McDonald, Sheehan, & Walrath-Greene, 2007; Aarons, Cafri, Lugo, & Sawitzky, 2012a). The EBPAS assesses four dimensions of attitudes including the intuitive *Appeal* of EBP, likelihood of adopting EBP given *Requirements* to do so, general *Openness* to new practices, and perceived *Divergence* between research-based interventions and needs in current practice. Additional research has demonstrated that these dimensions can be influenced by numerous factors, including characteristics of individual providers (Aarons et al., 2010), organizational culture and climate (Aarons & Sawitzky, 2006; Aarons et al., 2012b), supervisor leadership behaviors (Aarons & Sommerfeld, 2012), and EBP training experiences (Lim, Nakamura, Higa-McMillan, Shimabukuro, & Slavin, 2012). Nelson and Steele (2007) demonstrated that practitioner attitudes toward efficacy research predict self-reported EBP use, highlighting the role of provider attitudes in predicting likelihood of EBP implementation.

Previous research has approached provider attitudes toward EBP as a general construct. This approach has proven valuable in establishing attitudes as a significant individual difference variable that can be addressed in dissemination and implementation efforts. Additionally, there is some evidence to suggest that looking beyond general EBP attitudes may reveal another level of complexity to our understanding of provider receptivity to EBP. Borntrager and colleagues (2009) demonstrated that changes in providers' general attitudes toward EBP from pre- to post-training were dependent on the manner in which EBP was described. In this study, providers trained in a flexible, modular EBP reported significantly improved post-training EBP attitudes, while providers trained in a standard manualized EBP showed no attitude improvement from pre- to post-training. Notably, the improvement in pre- to post-training attitudes for the modular

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EBP providers was only detected on a modified measure that did not refer to EBP as "manualized." Borntrager et al.'s study suggests that even minor alterations to the way we query providers about their EBP attitudes may reveal important nuances about their perception of EBP. That providers can distinguish their perceptions of manualized EBP from their more generalized attitudes toward EBP highlights the possibility that they may hold multiple, or even contrary attitudes about EBP depending on how EBP is defined.

In the current marketplace of dissemination and implementation, providers, organizations, and systems have an array of EBPs upon which they can focus their attention and resources for implementation. As a prime example of multiple EBP implementation, the Los Angeles County Department of Mental Health's (LACDMH) Prevention and Early Intervention (PEI) transformation of children's services is representative of an early trend in fiscally driven approaches to EBP implementation in the public mental health sector. LACDMH is the nation's largest county mental health department, directly operating 33 clinics with 288 contracted agencies. In August 2009, LACDMH launched the PEI transformation of children's services through a fiscal mandate that restricted reimbursement to an array of 52 interventions, amending the contracts of 120 agencies. LACDMH provided implementation support (i.e., training and consultation) for five selected EBPs to address a range of child mental health problems: Trauma Focused Cognitive Behavior Therapy (TF-CBT), Seeking Safety (SS), Positive Parenting Program (Triple P), Child-Parent Psychotherapy (CPP), and Cognitive Behavioral Interventions for Trauma in Schools (CBITS). A sixth intervention was included based on the Managing and Adapting Practice (MAP) system (e.g., Chorpita & Daleiden, 2014), which is a knowledge management system that allows treatment teams to design and adapt evidence-informed plans personalized to each youth. These plans can organize and include EBPs formally, or can build

approaches based on practice elements (discrete clinical techniques used as part of a larger intervention plan) common to EBPs (e.g., Chorpita & Daleiden, 2009). The five EBPs are included in the National Registry of Evidence-based Programs and Practices (NREPP), and MAP has accumulated considerable evidence in support of its effectiveness in community settings (Daleiden, Chorpita, Donkervoet, Arensdorf, & Brogan, 2006; Southam-Gerow et al., 2014).

Organizations were funded to train practitioners in the interventions they selected based on their stated needs and preferences. The six interventions included in the current study are among the most heavily utilized treatments in Los Angeles County. The size and scope of the PEI transformation represents a leading example of the movement toward adoption of EBP in usual care settings. Thus, it is becoming increasingly necessary to better understand the provider responses to such large-scale implementation efforts. Provider responses to and perceptions of EBPs may be important predictors of implementation outcomes such as uptake, fidelity, and sustainability (Aarons, Hurlburt, & Horwitz, 2011).

The Current Study

In a context in which providers have been trained in multiple EBPs, assessing general attitudes toward EBP may not capture the diversity of their perceptions of the various EBPs in which they have been trained. In fact, our work with community providers in developing modular treatments has led us to wonder how much of the variance in provider attitudes toward EBP is captured by their individual attributes compared to variance in the design features of the treatments themselves (Chorpita et al., 2011; Borntrager et al., 2009). In order to address this issue, the current study utilized an adapted administration of the EBPAS-50 to explore the feasibility and utility of capturing *both* general attitudes about EBP and specific attitudes toward the EBPs to which providers have been exposed. The current study was an exploration into the

utility of expanding approaches to measuring provider attitudes, given that previous research has proposed innovation-specific characteristics as a meaningful component of the implementation process. For example, in their conceptual model of EBP implementation in public service sectors, Aarons and colleagues (2011) suggested that the strength of a particular innovation's fit with organizational and provider values is likely to influence its chances of effective implementation. Isett and colleagues (2007) found unique implementation challenges for each of five EBPs for adults with serious mental illness. Finally, Jensen-Doss, Cusack, and de Arellano (2008) demonstrated positive attitude change from pre- to post-workshop training for a specific EBP (TF-CBT).

We addressed four research questions in the current study: (a) do attitudes toward specific EBPs vary significantly by treatment, (b) to what extent are perceptions of EBP-specific attitudes accounted for by general attitudes toward EBP, (c) what provider characteristics predict perceptions of specific EBPs, and (d) do attitudes toward a specific EBP predict providers' self-reported use of that EBP? Given our belief that characteristics of individual interventions meaningfully influence provider experiences, we hypothesized that significant variance in provider attitudes would be attributable to the intervention. However, we were agnostic as to which interventions providers would prefer since the current study was not designed to make direct comparisons between specific interventions. Beyond our central hypothesis for the study (research question a), our approach to questions b, c, and d was exploratory in nature.

METHOD

Participants

Data were collected from a convenience sample recruited at a one-day booster training event for one of the PEI supported interventions (MAP) in Los Angeles County. All participants

($N = 348$) were community therapists practicing in Los Angeles County. See Table 1 for participant demographic data. A total of 506 providers attended the training event and were provided a survey packet, resulting in a 69% response rate for the survey.

The 347 therapists who provided EBP-specific attitudes data had attended trainings as follows: 343 in MAP (99%), 243 in TF-CBT (70%), 149 in Seeking Safety (43%), 54 in Triple P (16%), 25 in CBITS (7%), and 13 in CPP (4%). The breakdown of total EBPs in which providers were trained was: 55 in one EBP (16%), 136 in two EBPs (39%), 125 in three EBPs (36%), and 30 in four or more EBPs (9%). The mean number of EBPs on which participants were trained in the current study was 2.38 ($SD = 0.88$). While funding initiatives in Los Angeles County (e.g., PEI) incentivized the use of certain EBPs, trainee selection was managed in an individualized manner across agencies. Compared with the Los Angeles County system-wide training data, the current sample demonstrates variability in the number of EBPs on which providers were trained. Whereas system-wide data indicate a sizeable proportion of providers within agencies were trained on a single EBP (33%) or four or more EBPs (26%), the current study sample had a heavier concentration of providers trained in two to three EBPs (75% in current sample vs. 41% system-wide). In line with system-wide gross penetration data from 2011-12, MAP, TF-CBT, and Seeking Safety were the most frequently trained EBPs in the sample. We assumed the current sample of providers primarily served youths because they were attending training for a child-focused intervention (MAP) and the vast majority (84%) endorsed training in at least one other child-focused EBP.

Measures

Provider characteristics. A background questionnaire was used to obtain information on various therapist characteristics, including age, gender, ethnicity, professional specialty,

licensure status, primary theoretical orientation, years of clinical experience, highest degree obtained, hours of continuing education, current actual caseload, weekly hours billed to EBP reimbursement codes, weekly hours billed to non-EBP reimbursement codes, weekly hours of supervision for EBP and non-EBP, and whether or not the participant was a clinical supervisor in their agency. In addition, participants were asked to provide ratings of professional burnout and were asked to report their ideal caseload. These items were selected from a "Therapist Background Questionnaire" utilized in a previously published clinical trial (Weisz et al., 2012).

The EBPAS-50. The EBPAS-50 has been validated and normed in a national sample of over 1,000 mental health service providers across 26 states (Aarons et al., 2012a). Its factor structure, internal consistency reliability, construct validity, and convergent validity have been demonstrated (Aarons, 2004; Aarons, McDonald, Sheehan, & Walrath-Greene, 2007; Aarons et al., 2012a). The 50-item EBPAS-50 consists of the following 12 domains. The Requirements domain (3 items; α = .83 for the study sample) captures providers' willingness to adopt interventions given external requirements. An example item reads, "I am likely to continue using evidence-based practice because my agency requires it." Appeal (4 items; α = .90) measures the perceived positive characteristics of EBPs according to providers: for example, "If I received training in a therapy or intervention that was new to me, I would adopt it if it 'made sense' to me." Openness (4 items; α = .78) evaluates providers' openness to trying new interventions: "I like to use new types of therapy/interventions to help my clients." The Divergence domain (4 items; α = .71) queries providers' inclinations to avoid using EBPs in clinical practice: "Clinical experience is more important than using manualized therapy/interventions." Limitations (7 items; α = .87) evaluates perceived issues with EBP according to providers: "EBP is not useful for clients with multiple problems." The Fit domain (7 items; α = .78) measures how well EBP

matches the values and needs of the client and clinician: "I would adopt an EBP if it fit with my treatment philosophy." The Monitoring domain (3 items; $\alpha = .86$) captures providers' negative reactions to oversight of their clinical work: "I do not want anyone looking over my shoulder while I provide services." Balance (4 items; $\alpha = .42$) evaluates providers' beliefs about the role of science in therapy: "A positive outcome in therapy is an art more than a science." The Burden domain (4 items; $\alpha = .83$) inquires about the perceived administrative burden associated with learning EBPs: "EBP will cause too much paperwork." Job Security (3 items; $\alpha = .89$) measures providers' impressions of EBPs' potential to improve their job security: "Learning an EBP will help me keep my job." Organizational Support (3 items; $\alpha = .74$) queries about providers' desire for support during and after EBP training: "I would learn an EBP if ongoing support was provided." Finally, the Feedback domain (3 items; $\alpha = .87$) assesses providers' notions about the role of feedback in improving clinical practice: "Getting supervision helps me to be a better therapist/case manager." Five of these domains – Divergence, Limitations, Monitoring, Balance, and Burden – were reverse-coded so that higher values indicated more positive attitudes toward EBP. Overall, all EBPAS-50 scales demonstrated acceptable to excellent ($.70 < \alpha \leq .90$) internal consistency reliability in the current sample except for Balance.

Specialized administration of the EBPAS-50. In the current study, the items in the Appeal and Limitations subscales were selected as suitable for assessing attitudes toward specific EBPs. These two domains were selected for adaptation because their items pertain to properties of EBP in general rather than provider traits. Consequently, items in these scales could be easily reworded to pertain specifically to the properties of an individual EBP. For example, the Appeal scale's statement, "If I received training in a therapy or intervention that was new to me, I would adopt it if it 'made sense' to me" was reworded to apply to a specific EBP via the following

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adaptation: "I am likely to continue using this intervention because it 'makes sense' to me." Likewise, the Limitations scale statement, "EBP is not useful for clients with multiple problems" was reworded to apply to a specific EBP via the following adaptation: "This intervention is not useful for clients with multiple problems."

In contrast to Appeal and Limitations, the remaining 10 domains pertain primarily to characteristics of the provider rather than characteristics of EBP. For this reason, we would not expect ratings to vary meaningfully if the items contained in these scales were altered to apply to specific EBPs. For example, the statement "I would learn an EBP if ongoing support was provided" (from the Organizational Support scale) would be unlikely to vary if adapted to specific EBPs because the item focuses on the provider's desire for support rather than any particular aspect of EBP. Additionally, statements such as, "I like to use new types of therapy/interventions to help my clients" (from the Openness scale) would not be suitable for adaptation because they refer primarily to a provider's individual characteristics as opposed to their views about EBP. For these reasons, the remaining 10 scales of the EBPAS-50 were administered as usual to assess more general attitudes toward EBP.

Adapting the Appeal and Limitations scales created two domains associated with EBP-specific attitudes (11 items per intervention), and left 10 domains (39 items total) referring to general EBP attitudes. All items retained the original EBPAS response scale, which asks participants to rate their agreement with each item from 0 ("*Not at All*") to 4 ("*To a Very Great Extent*"). In the current study, participants rated the two EBP-specific attitude scales up to six times, depending on the number of EBPs in which the provider received training.

EBP-specific attitudes. The modified Appeal and Limitations subscales were used to measure EBP-specific attitudes. The Limitations scale was reverse-coded so that higher values

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indicated more positive attitudes toward EBP. The two scales were correlated $r = .41$ across the six EBPs. We created a mean composite score to yield an EBP-specific attitude score for each EBP. The mean internal consistency of the 11-item composite across the six EBPs was .88.

General EBP attitudes. We created a composite general EBP attitudes score from the 10 EBPAS-50 subscales that remained after excluding Appeal and Limitations. The general EBP attitudes composite score was calculated by averaging the 10 individual subscale scores, resulting in a single value representing a provider's general attitudes toward EBP. Internal consistency was good for the 39-item composite score ($\alpha = .77$).

Provider reported EBP implementation. A single item was included to assess self-reported EBP implementation for each of the six treatments in which the provider was trained. Providers were asked to rate their response to the item, "I have used this intervention in my regular clinical practice," on a scale from 0 ("*Not at All*") to 4 ("*To a Very Great Extent*").

Procedure

The first author and a research assistant recruited participants during registration for the therapist training event and throughout the day during breaks. Providers were told that their participation was voluntary and would have no bearing on their standing within their agency, with the EBP developers or training staff, and with LACDMH. Periodic announcements were made to all training attendees in the main conference hall throughout the day; participants opted into the study by submitting their surveys to a collection table set up outside the conference hall.

Consenting participants were provided with a packet containing the consent form and questionnaire, which together took pilot participants at a previous training event ($N = 24$) an average of 13 minutes and 26 seconds ($SD = 3{:}36$) to complete. Four arrangements of the survey battery were distributed randomly to counterbalance for two considerations: (a) whether EBP-

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specific or general EBP attitudes were queried first, and (b) the order in which the individual

EBPs were presented (standard vs. reverse-ordered). All questionnaires began with the provider

characteristics section. Providers only completed EBP-specific attitude ratings for EBPs on

which they self-reported being trained. In order to ensure privacy and increase the likelihood of

response integrity, each participant was given two separate items paper-clipped together: (a) a

sheet of paper on which to provide their written consent and identifying information, and (b) the

questionnaire itself. Both forms were pre-labeled with a participant identification number. Upon

completion of the measure and consent form, participants turned the items in to separate

collection boxes. The de-identified participant responses were entered into the main database for

analysis, and the identifying information was used to create a separate password-protected

participant key linking participant identifying information to their questionnaire data. In return

for their time, participants were provided a raffle ticket for one of 25 prizes ranging in value

from $5 to $200, with total value of $500. Prizes were raffled off during breaks throughout the

day, incentivizing participants to complete their measures earlier in the day in order to increase

their odds of winning a prize. Institutional review boards at UCLA and LACDMH approved all

procedures for this study.

RESULTS

Provider attitude scores were compared across the six individual interventions included

on the measure: MAP, TF-CBT, Seeking Safety, Triple P, CPP, and CBITS. Because therapists

in the sample were trained on different combinations of EBPs, a multilevel model with random

intercepts was utilized to account for the non-independence of their EBP-specific attitude ratings.

Level one variables were the repeated measures EBP-specific ratings, their identifying

"treatment type" variable, and self-reported EBP implementation; level two variables were

providers' general EBP attitude ratings and individual provider characteristics (e.g., primary theoretical orientation).

Question 1: Do Attitudes Toward Specific EBPs Vary Significantly by Treatment?

The dependent variable, EBP-specific attitude ratings, was predicted by the categorical within-subjects variable "treatment type" in order to test the primary research question of whether EBP-specific attitudes would vary significantly by treatment. Covariates in the model included providers' general attitude ratings toward EBP, the total number of EBPs on which they were trained ("EBP training count"), and duration between a provider's training in a specific EBP and the date of the measure administration ("time since EBP training"). Seven demographic variables were also included as covariates including ethnicity (three levels coded: Non-Hispanic White, Hispanic, and Other), highest degree level (two levels: master's degree and doctorate), discrepancy between actual and ideal caseload ("caseload discrepancy"), weekly hours of EBP supervision, self-reported burnout, primary theoretical orientation (coded CBT versus all others), and duration between the date the provider's most advanced degree was earned and the date of the measure administration ("clinical experience"). This model will be referred to as "Model 1."

Controlling for the covariates in Model 1, an omnibus test of fixed effects revealed a significant effect of treatment type on EBP-specific attitudes, $F(5, 561) = 34.93$, $p < .001$. Mean attitude scores for each intervention in Model 1 can be found in Table 2. Overall attitude scores for the specific EBPs ranged from 2.07 (CBITS) to 3.27 (CPP). The level 1 (total observations) residual estimate for a partial Model 1 excluding the treatment type variable was .51. Adding treatment type reduced the level 1 residual estimate to .37 for the full Model 1. Thus, the residual change score $((\sigma^2_{res(partial)} - \sigma^2_{res(full)})/ \sigma^2_{res(partial)})$ reveals that treatment type accounted for a .28 reduction in the level 1 residuals for the dependent variable, EBP-specific attitudes.

Analysis of Appeal and Limitations scales separately. In order to examine whether the aforementioned findings might be different when analyzing EBP-specific Appeal scores versus Limitations scores separately, separate analyses were conducted using each scale as the dependent variable. Including all of the previous covariates, treatment type was found to be predictive of both Appeal, $F(5, 579) = 34.55$, $p < .001$, and Limitations, $F(5, 546) = 16.91$, $p < .001$, individually.

Question 2: To What Extent Are Perceptions of EBP-Specific Attitudes Accounted for by General Attitudes Toward EBP?

The predictive value of each covariate from Model 1 can be found in the multilevel model statistics provided in Table 3. As expected, general EBP attitudes were found to significantly predict EBP-specific attitudes, $F(1, 280) = 76.91$, $p < .001$.

Question 3: What Provider Characteristics Predict Perceptions of Specific EBPs?

The following demographic variables predicted EBP-specific attitudes in Model 1: degree level, $F(1, 294) = 8.09$, $p = .005$, self-reported burnout, $F(1, 288) = 7.74$, $p = .006$, primary theoretical orientation, $F(1, 294) = 6.05$, $p = .014$, and clinical experience, $F(1, 300) = 6.58$, $p = .011$. Specifically, model estimates indicate that increased general EBP attitudes, presence of a doctorate-level degree, decreased burnout, presence of a primary CBT orientation, and increased clinical experience all significantly predicted higher EBP-specific attitude scores. Ethnicity, discrepancy between actual and ideal caseload, amount of EBP supervision, EBP training count, and time since EBP training did not have significant associations with EBP-specific attitudes.

Due to the potential bias and experimenter demand introduced by the context of data collection at a MAP booster training event, the same multilevel model with random intercepts was conducted excluding providers' ratings of attitudes toward MAP (Model 2) and using CPP

as the new reference group. The omnibus test for Model 2 once again demonstrated a significant effect of treatment type on EBP-specific attitudes, $F(4, 311) = 19.44$, $p < .001$, for the five non-MAP treatments. All covariates found to be significant predictors of EBP-specific attitudes in Model 1 remained significant in the same direction with the exception of clinical experience, which became non-significant, $F(1, 269) = 2.68$, $p = .103$. Since the inclusion of MAP cases did not have a major effect on the significance of any key predictors and covariates besides clinical experience, all other analyses reported included all six treatment types.

Question 4: Do Attitudes Toward a Specific EBP Predict Providers' Self-Reported Use of That EBP?

As an initial attempt to explore the association between provider EBP attitudes and EBP implementation, EBP-specific attitudes (our previous dependent variable) were included as a predictor in a multilevel model with self-reported implementation as the dependent variable. Controlling for treatment type, general EBP attitudes, EBP training count, time since EBP training, and the seven demographic variables from previous analyses, EBP-specific attitudes significantly predicted self-reported implementation, $F(1, 686) = 85.49$, $p < .001$. The multilevel model estimate of .56 (*S.E.* = .06) indicates that for every unit increase in EBP-specific attitude score, self-reported implementation for that EBP increases by .56 units on the 5-point (0-4) scale. Treatment type, $F(5, 594) = 10.69$, $p < .001$, and time since EBP training, $F(1, 678) = 39.54$, $p < .001$, were also significant predictors of self-reported treatment use. As time since training on a specific EBP increased, self-reported use of that EBP increased. Neither general EBP attitudes, $F(1, 306) = 3.28$, $p = .071$, nor EBP training count, $F(1, 327) = 0.20$, $p = .658$, significantly predicted self-reported treatment use. Of the seven demographic variables, only having a primary CBT orientation, $F(1, 286) = 3.86$, $p = .050$, was a significant predictor of increased self-reported

EBP implementation in this analysis.

Predicting treatment use from the Appeal and Limitations scale scores separately revealed a divergent pattern of results. Appeal was a significant predictor of self-reported implementation, $F(1, 694) = 221.42$, $p < .001$, while Limitations was not. These findings suggest that the Appeal scale may drive the relationship between overall EBP-specific attitudes and self-reported treatment use, rather than the Limitations scale.

DISCUSSION

We sought to explore the potential utility of measuring providers' attitudes toward specific evidence-based practices in addition to their general attitudes about EBP. In doing so, our data suggest that L.A. County therapists could reliably differentiate between EBPs in which they had been trained via two attitude domains, Appeal and Limitations. These findings affirm our hypothesis that attitudes toward specific EBPs would demonstrate significant variance by treatment, which was our primary research question.

Furthermore, we learned that the effect of treatment type on EBP-specific attitudes remained even after controlling for general attitudes toward EBP as well as a number of other provider demographic characteristics and contextual training factors. This discovery indicates that, in response to our second research question, EBP-specific attitudes may provide unique information beyond that which is contributed by providers' general attitudes toward EBP.

Our third research question asked what provider characteristics predict EBP-specific attitudes, following from past studies exploring predictors of EBP attitudes and delivery (e.g., Brookman-Frazee, Haine, Baker-Ericzén, Zoffness, & Garland, 2010). We found that doctoral level training, lower burnout, a primary CBT orientation, and increased clinical experience all contributed to higher EBP-specific attitudes when controlling for treatment type and general EBP

attitudes. On the other hand, ethnicity, caseload discrepancy, amount of EBP supervision, EBP training count, and time since EBP training were not associated with EBP-specific attitudes.

In regard to our fourth and final research question, providers' EBP-specific attitudes were linked to their self-reported use of those same treatments in the current study, even after controlling for general attitudes toward EBP. Nelson and Steele (2007) demonstrated that general practitioner attitudes toward treatment research were a significant predictor of self-reported EBP use, and these findings extend their results by revealing a link between EBP-specific attitudes and self-reported use of that EBP. Interestingly, although the self-reported implementation of a particular treatment was strongly related to its Appeal score, no connection was found between treatment use and its Limitations score. This was somewhat unexpected given that the perceived burden, complexity, and difficulty of EBPs have been cited as factors deterring adoption of EBPs (e.g., Aarons, Wells, Zagursky, Fettes, & Palinkas, 2009; Jensen-Doss et al., 2009). However, in the context of system reform requiring EBP implementation, these perceived limitations might not be the main factor driving EBP use or selection. Given this pattern of preliminary findings, it is worth investigating whether providers may be more concerned with a treatment's lack or presence of appealing features than with its limitations in the context of implementation efforts.

Although a particular EBP's Appeal and composite attitudes scores predicted self-reported implementation in the current study, general attitudes toward EBP did not have a significant effect on self-reported EBP use. While this study represents an initial entry into the measurement and exploration of EBP-specific attitudes, a robust replication of these findings would suggest that specific treatment attitudes might in fact be more proximal to use than general attitudes toward EBP when uptake is mandated through policy.

Several limitations should be considered regarding the current study. First, the study used

a convenience sample of L.A. County therapists attending a MAP-related event. Therapists were encouraged by their agencies to attend the training, but attendance was not mandatory. While the selection process may have resulted in a sample with more open or positive views toward EBPs, there is no reason to believe participants were biased toward any particular EBP, except possibly MAP. Nevertheless, the primary finding that there were differences among treatment-specific attitudes based on treatment type should only be interpreted generally, rather than attempting to make any specific comparisons among the treatments measured in this study. Again, we want to emphasize that the central finding – that provider attitudes toward the specific interventions measured in this study varied significantly – held true even when excluding MAP from the analyses. MAP was not the most highly rated intervention in our sample, as CPP in fact garnered the highest domain-specific and composite attitude scores. Yet, the primary finding from Model 1 remains significant even after excluding both MAP and CPP cases. Nevertheless, replicating the current findings in a broader community sample (e.g., a LACDMH-wide administration of the measure) while tracking behavioral outcomes would provide the most conclusive data in answering our initial research questions.

A second limitation was the cross-sectional nature of the survey, which did not allow us to determine whether EBP-specific attitudes affected implementation experience, or vice versa. This directional ambiguity highlights the necessity of prospective longitudinal studies that would capture change in attitudes and implementation experience over time. As suggested by recent empirical findings (e.g., Aarons et al., 2012b; Torrey, Bond, McHugo, & Swain, 2012) it could well be the case that the best intervention for poor attitudes is well-supported implementation. Third, we were unable to control for providers' agencies, the nature (type, intensity, frequency) of their EBP training experiences, or other unmeasured factors that may have affected EBP

attitude ratings. Fourth, internal consistency reliability was low for the Balance subscale ($\alpha =$ .42) in this study's sample. Excluding this subscale when calculating providers' general EBP attitudes scores had no meaningful impact on the outcomes reported.

Our reliance on provider self-report as a measure of EBP usage limits our ability to draw conclusions about the relationship between attitudes and utilization, as self-reported use is no guarantee of actual use or fidelity. Future studies should utilize multiple indicators of provider treatment usage and fidelity in order to fully explore the complex relationships between attitudes, utilization, and fidelity. Finally, due to the tremendous pressure placed on organizations to train their providers as part of the PEI initiative, we believe the current findings would best generalize to systems in which EBPs are fully mandated. In non-mandated environments where providers have more flexibility to select EBPs, we would expect self-selection to reduce the variance among EBP-specific attitude ratings.

Future research to replicate this study's findings could have implications for treatment design, as a better understanding of how EBP characteristics influence attitudes – and most importantly, behavior – could aid treatment developers in creating more desirable EBPs. Such research would also allow us to draw more fine-grained conclusions about which characteristics of EBP are more and less favorable, and perhaps to evaluate which of the currently available EBPs providers find most and least desirable. Understanding the relative desirability of various EBPs would have clear implications for EBP implementation, as decision makers would have an additional source of relevant information when making critical choices about which treatments to implement (e.g., LACDMH's PEI transformation). Studies involving the coding of EBPs to determine which features specifically relate to therapist attitudes could help to create a feedback loop between treatment developers and their consumers (providers). Furthermore, providing

feedback to clinicians on client-level outcomes following implementation of EBPs may further improve attitudes, and promote more widespread and sustained use (Bickman, 2008; Garland, Bickman, & Chorpita, 2010).

In addition, qualitative research regarding the types of EBP refinements or adaptations that may improve fit with provider needs and practice setting contexts could help inform implementers, trainers, and developers. This type of research has been ongoing (e.g., Southam-Gerow, Hourigan, & Allin, 2009; Aarons & Palinkas, 2007), and might be enhanced by the inclusion of EBP-specific attitude assessment.

Eventually, the field may benefit from a more thorough investigation of the effect of treatment-specific attitudes on key implementation outcomes for available EBPs relative to other considerations like primary presenting problem, agency climate, and billing pressures. All of these areas of consideration represent potential avenues for improving EBP utilization, and a focus on treatment design and selection as a means of influencing EBP-specific attitudes could expand researchers' repertoire for provider attitude and behavior change. Ideally, simultaneous adoption and implementation support for a range of practices would allow providers to choose practices that best fit their service context and client needs.

In an increasingly complex environment of EBP delivery, a sharper focus on treatments themselves – in addition to the individuals who deliver them and the contexts in which they are delivered – might prove fruitful. Our data suggest that measuring EBP-specific attitudes and their effects on implementation outcomes represents a worthwhile pathway for future exploration. Given the body of evidence supporting general EBP attitudes as a point of intervention in affecting implementation outcomes, perhaps EBP-specific attitudes can add another avenue to aid mental health experts in closing the gap between research and practice. Given that providers

are the terminal gatekeepers for the dissemination of research products to those they are designed to help, it is worth considering which products these providers find most desirable and why. We believe measuring EBP-specific attitudes is a promising step in this direction.

Table 1.

Participant demographic information.

Variable	Mean	SD	N	%
Age	35.24	8.89		
Gender				
Male			53	15.2
Female			295	84.8
Time since degree (yrs.)			6.29	6.63
Licensed in CA			152	43.7
Clinical supervisor status			99	28.4
Degree				
Master's			342	98.3
Doctoral			43	12.4
Ethnicity				
Spanish/Hispanic/Latino			134	38.5
White/Caucasian/European-American			126	36.2
Asian			43	12.4
Black/African-American			24	6.9
Mixed/Other			15	4.3
Primary theoretical orientation				
Cognitive-Behavioral			151	43.4
Eclectic			108	31.0
Family Systems			41	11.8
Humanistic			27	7.8
Psychodynamic			17	4.9
Other			3	0.9
Avg. burnout (0 "Never" - 4 "All the Time")	1.80	0.83		
Avg. caseload size	13.94	7.83		
Ideal caseload size	13.20	7.64		
Hrs. billed per wk. for EBP (including MAP)	13.02	8.73		
Hrs. billed per wk. for non-EBP	9.26	8.03		
Hrs. of supervision per wk. for EBP	1.59	2.41		
Hrs. of supervision per wk. for non-EBP	1.31	1.20		

Table 2.

Estimated marginal means for practice-specific attitude scores.

Treatment Type	Appeal Scale (S.E.)	Limitations Scale (S.E.)	Overall (S.E.)
CPP (n = 13)	3.24 (.27)	3.32 (.25)	3.27 (.21)
MAP (n = 343)	2.92 (.06)	3.20 (.05)	3.07 (.04)
TF-CBT (n = 243)	2.77 (.06)	2.77 (.06)	2.77 (.05)
Triple P (n = 54)	2.60 (.13)	2.57 (.12)	2.59 (.10)
Seeking Safety (n = 149)	1.85 (.08)	2.54 (.07)	2.19 (.06)
CBITS (n = 25)	1.61 (.20)	2.55 (.18)	2.07 (.15)

Table 3.

Unstandardized estimates of effects of selected predictors on overall EBP-specific attitudes, Appeal, and Limitations scales in Model 1.

	Overall EBP-Specific Attitudes		Appeal Scale		Limitations Scale	
Predictor	Unstd. Est.	S.E.	Unstd. Est.	S.E.	Unstd. Est.	S.E.
Intercept	0.32	0.32	-0.35	0.39	1.00**	0.40
Treatment Type						
MAP [a]	-	-	-	-	-	-
TF-CBT	-0.29***	0.06	-0.15*	0.08	-0.43***	0.07
Seeking Safety	-0.88***	0.07	-1.08***	0.09	-0.66***	0.08
Triple P	-0.48***	0.11	-0.33*	0.14	-0.64***	0.12
CPP	0.21	0.21	0.31	0.27	0.11	0.25
CBITS	-1.00***	0.16	-1.31***	0.21	-0.66***	0.19
General EBP Attitudes	0.78***	0.09	0.96***	0.11	0.60***	0.11
EBP Count	0.06	0.04	0.03	0.05	0.09	0.05
Years Since EBP Training	0.03	0.03	0.07	0.05	-0.01	0.04
Ethnicity						
White [a]	-	-	-	-	-	-
Hispanic	0.13	0.07	0.17*	0.09	0.08	0.09
Other	0.13	0.08	0.17	0.10	0.07	0.10
Degree Level	0.27**	0.09	0.26*	0.11	0.27*	0.12
Caseload Discrepancy	-0.01	0.01	0.00	0.01	-0.01*	0.01
EBP Supervision (Hrs)	0.02	0.01	0.03	0.02	0.00	0.02
Burnout	-0.11**	0.04	-0.11*	0.05	-0.10*	0.05
Primary Orientation	0.15**	0.06	0.17*	0.08	0.14	0.08
Clinical Experience (Yrs)	0.02**	0.01	0.02*	0.01	0.01	0.01

Note. $*p \leq .05$. $**p \leq .01$. $***p \leq .001$.
[a] Reference group.

REFERENCES

Aarons, G. A. (2004). Mental health provider attitudes toward adoption of evidence-based

practice: The Evidence-Based Practice Attitude Scale (EBPAS). *Mental Health Services

Research*, *6*(2), 61-74. doi:10.1023/B:MHSR.0000024351.12294.65

Aarons, G. A, Cafri, G., Lugo, L., & Sawitzky, A. (2012a). Expanding the domains of attitudes

towards evidence-based practice: The Evidence Based Practice Attitude Scale-50.

Administration and Policy in Mental Health, 39(5), 331–340. doi:10.1007/s10488-010-

0302-3

Aarons, G. A., Fettes, D. L., Flores, L. E., & Sommerfeld, D. H. (2009). Evidence-based practice

implementation and staff emotional exhaustion in children's services. *Behavior Research

and Therapy*, *47*(11), 954-960. doi:10.1016/j.brat.2009.07.006

Aarons, G. A., Glisson, C., Hoagwood, K., Kelleher, K., Landsverk, J., & Cafri, G. (2010).

Psychometric properties and U.S. National norms of the Evidence-Based Practice

Attitude Scale (EBPAS). *Psychological Assessment, 22*(2), 356-365.

doi:10.1037/a0019188

Aarons, G. A., Glisson, C., Green, P. D., Hoagwood, K., Kelleher, K. J., Landsverk, J., & the

Research Network on Youth Mental Health. (2012b). The organizational social context of

mental health services and clinician attitudes toward evidence-based practice: A United

States national study. *Implementation Science, 7*(56). doi:10.1186/1748-5908-7-56

Aarons, G. A., Hurlburt, M. S., & Horwitz, S. M. (2011). Advancing a conceptual model of

evidence-based practice implementation in public service sectors. *Administration and

Policy in Mental Health*, *38*(1), 4-23. doi:10.1007/s10488-010-0327-7

Aarons, G. A., McDonald, E. J., Sheehan, A. K., & Walrath-Greene, C. M. (2007). Confirmatory

factor analysis of the Evidence-Based Practice Attitude Scale in a geographically diverse sample of community mental health providers. *Administration and Policy in Mental Health*, *34*(5), 465-469. doi:10.1007/s10488-007-0127-x

Aarons, G.A., & Palinkas, L. A. (2007). Implementation of evidence-based practice in child welfare: Service provider perspectives. *Administration and Policy in Mental Health and Mental Health Services Research*. *34*(4), 411-419. doi:10.1007/s10488-007-0121-3

Aarons, G. A., & Sawitzky, A. C. (2006). Organizational culture and climate and mental health provider attitudes toward evidence-based practice. *Psychological Services*, *3*(1), 61-72. doi:10.1037/1541-1559.3.1.61

Aarons, G. A., & Sommerfeld, D. H. (2012). Leadership, innovation climate, and attitudes toward evidence-based practice during a statewide implementation. *Journal of the American Academy of Child and Adolescent Psychology, 51*(4), 423-431. doi:10.1016/j.jaac.2012.01.018

Aarons, G. A, Wells, R. S., Zagursky, K., Fettes, D. L., & Palinkas, L. A. (2009). Implementing evidence-based practice in community mental health agencies: A multiple stakeholder analysis. *American Journal of Public Health*, *99*(11), 2087-2095. doi:10.2105/AJPH.2009.161711

Bickman, L. (2008). A measurement feedback system (MFS) is necessary to improve mental health outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry, 47*(10), 1114–1119. doi:10.1097/CHI.0b013e3181825af8

Brookman-Frazee, L., Haine, R. A., Baker-Ericzén, M., Zoffness, R., & Garland, A. F. (2010). Factors associated with use of evidence-based practice strategies in usual care youth psychotherapy. *Administration and Policy in Mental Health and Mental Health Services*

Research, *37*(3), 254-269. doi:10.1007/s10488-009-0244-9

Borntrager, C. F., Chorpita, B. F., Higa-McMillan, C., & Weisz, J. R. (2009). Provider attitudes

toward evidence-based practices: Are the concerns with the evidence or with the

manuals? *Psychiatric Services (Washington, D.C.)*, *60*(5), 677-681.

doi:10.1176/appi.ps.60.5.677

Chorpita, B. F., & Daleiden, E. L. (2014). Structuring the collaboration of science and service in

pursuit of a shared vision. *Journal of Clinical Child & Adolescent Psychology*, *43*(2),

323-338. doi:10.1080/15374416.2013.828297

Chorpita, B. F., & Daleiden, E. L. (2009). Mapping evidence-based treatments for children and

adolescents: Application of the distillation and matching model to 615 treatments from

322 randomized trials. *Journal of Consulting and Clinical Psychology, 77*, 566-579.

doi:10.1037/a0014565

Chorpita, B. F., Rotheram-Borus, M. J., Daleiden, E. L., Bernstein, A., Cromley, T.,

Swendeman, D., & Regan, J. (2011). The old solutions are the new problem: How do we

better use what we already know about reducing the burden of mental illness?

Perspectives on Psychological Science, 6(5), 493–497. doi:10.1177/1745691611418240

Cooper, J. L., Aratani, Y., Knitzer, J., Rachel, A. D., Patti, M., & Sarah, B. (2008). Unclaimed

children revisited: The status of children's mental health policy in the United States,

(November). Retrieved October 22, 2012, from

http://academiccommons.columbia.edu/catalog/ac:126417

Cooper, J. L., & Aratani, Y. (2009). The status of states' policies to support evidence-based

practices in children's mental health, *Psychiatric Services, 60*(12), 1672-1675.

doi:10.1176/appi.ps.60.12.1672

Daleiden, E. L., Chorpita, B. F., Donkervoet, C. M., Arensdorf, A. A., & Brogan, M. (2006).

    Getting better at getting them better: Health outcomes and evidence-based practice within

    a system of care. *Journal of the American Academy of Child and Adolescent Psychiatry,*

    45, 749-756. doi:10.1097/01.chi.0000215154.07142.63

Garland, A. F., Bickman, L., & Chorpita, B. F. (2010). Change what? Identifying quality

    improvement targets by investigating usual mental health care. *Administration and Policy*

    in Mental Health, *37*, 15-26. doi:10.1007/s10488-010-0279-y

Isett, K. R., Burnam, M. A., Coleman-Beattie, B., Hyde, P. S., Morrissey, J. P., Magnabosco, J.,

    Rapp, C. A., Ganju, V., & Goldman, H. H. (2007). The state policy context of

    implementation issues for evidence-based practices in mental health. *Psychiatric*

    Services, 58(7), 914-921. doi:10.1176/appi.ps.58.7.914

Jensen-Doss, A., Cusack, K. J., & de Arellano, M. A. (2008). Workshop-based training in

    trauma-focused CBT: An in-depth analysis of impact on provider practices. *Community*

    Mental Health Journal, 44, 227-244. doi:10.1007/s10597-007-9121-8

Jensen-Doss, A., Hawley, K. M., Lopez, M., & Osterberg, L. D. (2009). Using evidence-based

    treatments: The experiences of youth providers working under a mandate. *Professional*

    Psychology: Research and Practice, 40(4), 417–424. doi:10.1037/a0014690

Kazdin, A. E. (2008). Evidence-based treatment and practice: New opportunities to bridge

    clinical research and practice, enhance the knowledge base, and improve patient care.

    American Psychologist, 63(3), 146-159. doi:10.1037/0003-066X.63.3.146

Lim, A., Nakamura, B. J., Higa-McMillan, C. K., Shimabukuro, S., & Slavin, L. (2012). Effects

    of workshop trainings on evidence-based practice attitudes among youth community

    mental health providers. *Behavior Research and Therapy 50*(6), 397-406.

doi:10.1016/j.brat.2012.03.008

McHugh, R. K., & Barlow, D. H. (2010). The dissemination and implementation of evidence-based psychological treatments. A review of current efforts. *The American psychologist*, *65*(2), 73-84. doi:10.1037/a0018121

Nelson, T. D., & Steele, R. G. (2007). Predictors of practitioner self-reported use of evidence-based practices: Practitioner training, clinical setting, and attitudes toward research. *Administration and Policy in Mental Health*, *34*(4), 319-330. doi:10.1007/s10488-006-0111-x

Norcross, J. C., Hedges, M., & Prochaska, J. O. (2002). The face of 2010: A Delphi poll on the future of psychotherapy. *Professional Psychology: Research and Practice*, *33*(3), 316-322. doi:10.1037//0735-7028.33.3.316

Southam-Gerow, M. A., Daleiden, E. L., Chorpita, B. F., Bae, C., Mitchell, C., Faye, M., & Alba, M. (2014). MAPping Los Angeles County: Taking an evidence-informed model of mental health care to scale. *Journal of Clinical Child & Adolescent Psychology*, *43*(2), 190–200. doi:10.1080/15374416.2013.833098

Southam-Gerow, M. A., Hourigan, S. E., & Allin, R. B. (2009). Adapting evidence-based mental health treatments in community settings: Preliminary results from a partnership approach. *Behavior Modification, 33,* 82-103. doi:10.1177/0145445508322624

Torrey, W. C., Bond, G. R., McHugo, G. J., & Swain, K. (2012). Evidence-based practice implementation in community mental health settings: The relative importance of key domains of implementation activity. *Administration and Policy in Mental Health*, *39*, 353-364. doi:10.1007/s10488-011-0357-9

Weisz, J. R., Chorpita, B. F., Palinkas, L. A., Schoenwald, S. K., Miranda, J., Bearman, S. K.,

Daleiden, E. L., et al. (2012). Testing standard and modular designs for psychotherapy treating depression, anxiety, and conduct problems in youth: A randomized effectiveness trial. *Archives of General Psychiatry, 69*(3), 1-9. doi:10.1001/archgenpsychiatry.2011.147

CHAPTER 2:

Implementation in a Changing Landscape:

Provider Experiences With Implementing

Evidence-Based Practice in Los Angeles County

ABSTRACT

This study examined 133 local service providers' perspectives on a shift to mandated evidence-based practice (EBP) delivery, utilizing an inductive coding process to capture themes present in their qualitative feedback. The majority of provider comments were negatively valenced, but attitudes varied considerably across response categories: comments regarding practice context and support were nearly uniformly negative, while comments regarding treatment fit and therapeutic consequences were more balanced. Treatment fit was the most commonly cited category; the fit to therapist (e.g., ease of use) subcategory was predominantly positive in contrast with the fit to client (e.g., flexibility) subcategory, which was predominantly negative. Results provide insight into the impact of large-scale implementation efforts on community providers that may help implementation researchers and system decision-makers seeking to optimize the conditions under which community providers are asked to implement EBP.

Keywords: evidence-based practice, provider attitudes, implementation, community mental health, qualitative feedback

INTRODUCTION

Mental health researchers have developed and demonstrated efficacy for a vast array of treatments for youth psychopathology, and the list of evidence-based practices (EBPs) grows continually (e.g., Chorpita et al., 2011). Despite these advances in the development of EBPs, the vast majority of youth in everyday mental healthcare settings do not receive these treatments (Kazdin & Blase, 2011; Kataoka, Zhang, & Wells, 2002; Merikangas, Nakamura, & Kessler, 2009). Even when EBPs are implemented into community practice settings, they often demonstrate diminished outcomes as compared with their performance in efficacy trials (e.g., Southam-Gerow et al., 2010).

This research-practice gap results from two equally valid perspectives. On the one hand, researchers encounter significant provider resistance to utilizing research-supported treatments and interpret this resistance as a barrier to achieving proper client care (Teachman, 2010). On the other, providers express frustration that their concerns and clinical priorities are not sufficiently addressed via the EBPs being developed and introduced (Castonguay et al., 2010). Chorpita and Daleiden (2014) note that the next generation of evidence-based treatment design may well involve a structured collaboration that includes both researchers and providers. In that collaboration, provider experiences not only illuminate new research directions but also encourage treatment models that are responsive to the demands of everyday clinical practice. Balancing the structure of the evidence base with the dynamic nature of the service delivery context, such collaborative designs illustrate Rogers' principle of "reinvention," such that the benefits of EBPs are preserved, but their implementation into community settings is potentially improved. This type of innovation will benefit from a process that allows providers to share their needs directly with researchers who may in turn address them through improving the fit of

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interventions or otherwise adapting them to increase their utility. The fruits of such a partnership, as Kazdin (2008) suggests, would meet the needs of both parties in addition to those of the systems in which EBPs are implemented and the clients who stand to benefit from their increased application.

In order to foster this partnership, it is important to consider that providers do not operate as individual agents but are embedded within larger, complex systems. A number of conceptual models have characterized children's mental health systems as intricate environments with concentric levels or contexts (e.g., government agencies, organizations, organizational staff, interventions, clients) having bidirectional influences on their adjacent levels (Proctor et al., 2009; Aarons, Hurlburt & Horwitz, 2011; Schoenwald, Kelleher, & Weisz, 2008; Southam-Gerow, Ringeisen, & Sherrill, 2006). Providers are on the front lines, often having to balance changes at the organizational level that may stem from larger statewide or federal mandates with their individual practice and client needs. These various influences impact provider attitudes and behaviors and may even impact the quality of services. Results from previous research on organizational climate have shown that constructive cultures, structures that were less centralized and formalized, and climates low in emotional exhaustion and role conflict supported service providers' adherence to treatment protocols and contributed to the availability, responsiveness, and continuity of services to children (see Glisson, 2002). More recently, Wiborg, Knoop, Wensing, and Bleijenberg (2012) found that negative provider views toward treatment manuals were associated with reduced treatment efficacy and that clinic setting further accounted for differences in therapist efficacy in delivering a cognitive-behavioral intervention. Therapists may represent only one component of the larger, multifaceted environment of children's mental

health systems, but they are an integral component and, as direct service providers, are uniquely situated to offer an on-the-ground perspective of implementation in practice.

Context for the Current Study

Over the past several years, multiple state and county mental health systems have made large-scale efforts to implement and increase the availability of EBPs in children's mental health services, including Hawaii, Washington, and New York (Chorpita et al., 2002; Dorsey, Berliner, Lyon, Pullmann & Murray, 2014; Hoagwood et al., 2014). Whereas many of these efforts were built up over multiple years with allowances for scaling up, Los Angeles County (LAC) represents a leading example of an extensive, mandated dissemination and implementation effort brought to scale over a brief time period. A major budget crisis in the state of California threatened a discontinuation of funding for county mental health services in 2009. However, a new revenue source had come online following the 2004 passage of the Mental Health Services Act (MHSA; CA Proposition 63) ballot initiative, which earmarked funding specifically for innovative mental health interventions. These funds could only be accessed for new interventions and programs. Leveraging MHSA dollars to maintain existing levels of service in LAC thus necessitated a transformation of local service selection, delivery, and billing practices. The Prevention and Early Intervention (PEI) transformation met these objectives to procure MHSA funding to address the county mental health budget crisis and keep agency doors open. In order to avoid any lapses in service delivery and, at a minimum, a partial collapse of the contracted service provider network due to the funding crisis, all aspects of the PEI transformation had to be executed expeditiously.

The PEI transformation launched in August 2009, enacting immediate amendments to approximately 120 agency contracts and restricting billing to a list of 52 approved interventions.

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In addition, six practices were selected for supported implementation in the form of county-funded training and consultation. Trainings for these interventions commenced in April 2010. In the 2010-11 fiscal year, over 27,000 children were served as part of PEI. See Southam-Gerow and colleagues (2014) for a comprehensive description of the LAC service context.

The Current Study

The current study took place in the unique context of the aforementioned PEI transformation, and examined how service providers were affected by the requirements to adopt and implement these new interventions. Participants provided feedback during a training event for one of the EBPs selected for PEI implementation support, providing an opportunity to assess providers' experiences during a period of rapid change. A previous study on provider attitudes toward the six implementation-supported PEI interventions demonstrated that practitioners trained in multiple EBPs held divergent attitudes toward the various EBPs (Reding, Chorpita, Lau, & Innes-Gomberg, 2014). Additionally, the appealing features of a given EBP were predictive of self-reported use of that EBP. Although the previous study provided a glimpse into provider attitudes in a multiple-EBP environment based on a modified version of a widely used questionnaire (EBPAS-50; Aarons, Cafri, Lugo, & Sawitzky, 2012), the unique and in many ways unforeseeable effects of the PEI transformation on providers were unlikely to have been adequately captured by the quantitative measure alone. Hence, the current study focused on providers' responses to an open-ended prompt concerning their experiences with the implementation process.

The primary goal for the current study was to categorize providers' feedback about their EBP implementation experiences in order to identify key themes that may help guide future implementation efforts. This study, which was exploratory in nature, focused on four primary

aims. First, we sought to classify the range of impacts on providers stemming from the mandate for training in and implementation of evidence based interventions in the context of the LAC PEI transformation. Second, we sought to characterize these subjective impacts as positive or negative in valence. Third, we examined whether there was meaningful variation in the valence of impacts across feedback categories. And finally, we sought to identify provider characteristics that predicted positive versus negative perceived impacts of the implementation experience.

METHOD

Participants

Participants were drawn from a purposeful criterion sample of community mental health service providers attending a one-day booster training for an intervention being adopted within the PEI transformation in LAC (Managing and Adapting Practice, or MAP; Chorpita & Daleiden, 2014; Chorpita, Daleiden, & Collins, 2013). A total of 506 clinicians attended the event, of which 348 participated in a larger study of provider attitudes toward EBP (see Reding et al., 2014), resulting in a 69% response rate. Of these 348 clinicians who participated in the larger attitudes study, 133 provided optional, open-ended written feedback on their experiences implementing EBP in the county (38% of attitudes study respondents; 26% of total attendees). The qualitative feedback from these 133 community providers was the focus of the current study.

It should be emphasized that participating clinicians were attending the one-day training event as follow-up or "booster" training for their regular clinical work; they were not attending to fulfill any clinical trial or research obligations. Because providers were attending training for a child-focused intervention (MAP) and the majority (87.2%) endorsed training in multiple child-focused EBPs, we assumed this sample of providers was primarily youth-serving. Table 1 displays demographic data for all participants providing qualitative feedback.

Measures

Provider characteristics and burnout. Participant demographic information was collected via an adapted "Therapist Background Questionnaire" that was used in a previous clinical trial (Weisz et al., 2012). Providers were also asked to rate how often they experience a feeling of professional burnout on a Likert scale from *0: Never* to *4: All of the time*.

General provider attitudes toward EBP. An adapted version of the 50-item Evidence-Based Practice Attitudes Scale (EBPAS-50; Aarons et al., 2012) was utilized to gather providers' general attitudes toward EBP. The original measure (EBPAS; Aarons, 2004) was validated and normed in a nationwide sample (Aarons et al., 2010) and its subscale reliability has been demonstrated for the current study sample in a previous paper (see Reding et al., 2014). Our adaptation of the EBPAS-50 modified two of the 12 original scales – Appeal and Limitations – such that their items pertained to a particular intervention rather than EBP in general. These two scales were used to explore participants' EBP-specific attitudes toward each of six interventions on which providers in the sample had been trained. Findings based on these modified scales were reported in the previous study (Reding et al., 2014), and hence they have been excluded from analyses in this paper.

All items used a 5-point Likert scale ranging from 0 ("*Not at All*") to 4 ("*To a Very Great Extent*"). General attitudes scores were created by first averaging the items within each domain, and then calculating the average of the 10 domain averages to arrive at an overall score for each participant ranging from 0 to 4. Internal consistency was good for the 39-item composite score (α = .76). These general EBP attitudes scores were utilized in the quantitative analyses relevant to our fourth study aim.

Qualitative feedback on provider experiences during the PEI transformation. As part of the adapted attitudes questionnaire, participants were given the option to provide open-ended feedback in response to the following question: "Is there anything else you would like to share with us about your experience with evidence-based practice?" The non-specific prompt allowed providers to comment on any aspect of their implementation experience, as space limitations on the survey did not allow for more specific prompting of open-ended feedback. Provider responses ranged in length from 3 to 196 words ($M = 45.3$).

Procedure

All attendees were told that participation in this study was voluntary and would have no impact on their standing with the training staff, their agency, or with the LAC Department of Mental Health. The lead author and a research assistant conducted the study, and neither had a role in the training event itself. Participants were given a consent form along with the questionnaire, and no completed questionnaires were accepted without an accompanying signed consent form. Questionnaires began with the provider characteristics section, followed by the modified EBPAS-50, and finally the open-ended response question. In exchange for their participation, respondents were entered into a raffle for various prizes. Full details on the data collection procedure can be found in the original paper describing the study (Reding et al., 2014).

Qualitative Coding Process

Inductive coding of provider responses. An inductive coding approach based on "Consensus, Co-occurrence, and Comparison" (Willms et al., 1990) and rooted in grounded theory (Glazer & Strauss, 1967) was utilized to generate a model of provider experiences. This qualitative coding methodology allows researchers to account for a priori and emergent themes in the data, and has been utilized in previous qualitative psychotherapy research (e.g., Palinkas et

al., 2013; Aarons & Palinkas, 2007). We applied this approach via an iterative coding process by which the raw data were condensed into analyzable units, with ongoing discussion among investigators to reach consensus on code definitions and the comprehensiveness of the coding scheme. Through the constant comparison (Glaser, 1965) of the conceptualized data generated from participants' raw response data, a comprehensive set of codes was developed and these base-level codes were further organized into subcategories, categories, and eventually an overarching model.

Handwritten provider responses to the open-ended EBP experience item were transcribed by three research assistants and then reviewed by the lead author. The lead author and another investigator independently coded all provider responses. When a particular phrase or passage contained multiple units of meaning, all relevant codes were assigned. Once all responses were double-coded, a code was used in data analyses if either coder recorded that code for the participant's response. This process was utilized to retain the maximum number of codes and was justified by the high degree of inter-rater reliability (see Results section).

The coding procedure resulted in a pool of 57 codes derived from participant raw response data. At this point, the coders jointly reviewed the list and combined those that did not represent substantially different units of meaning. Additionally, low frequency codes (occurring <5 times) were reviewed to determine whether they represented truly unique meanings or whether they could be effectively subsumed under a more frequently assigned code. This pruning procedure reduced the code pool to a final list of 35 codes.

Model development. After the code list was finalized, coders utilized the principle of constant comparison (Glaser, 1965) to develop a hierarchical thematic organization of the constituent codes. During this process, base-level codes were compared to each other in order to

identify a comprehensive list of common themes that accounted for all subordinate codes. These

coded themes were then labeled and compared to each other to develop higher-order categories

that captured the relationships between their constituent codes. The coders agreed upon a three-

level code-subcategory-category structure that best balanced parsimony and inclusiveness of all

base-level codes, and the resulting hierarchy was finalized during meetings with the other co-

authors.

Quantitative Analysis

Two provider characteristics, general attitudes and burnout, were examined as predictors

of providers' comments in the categories resulting from the qualitative coding process described

above. For providers who completed both the modified EBPAS-50 and the open-ended

qualitative item, binary logistic regression analyses were conducted to examine general attitudes

regarding EBP (i.e., the average score across the 10 general EBP attitudes scales of the modified

EBPAS-50) as a predictor of categories of qualitative comments. The same set of analyses was

conducted to test burnout as a predictor of categories of qualitative comments.

<div align="center">RESULTS</div>

Independent samples t-tests were conducted to ensure that the sample of clinicians who

provided qualitative data did not differ significantly from the rest of the sample who completed

the questionnaire but did not provide qualitative data. No significant differences between groups

were found on general EBP attitudes or provider characteristics such as burnout, primary

theoretical orientation, education level, experience, and number of EBPs learned.

Inter-Rater Reliability

Inter-rater reliability was calculated using Cohen's Kappa after an initial coding period of

20 responses for each coder, and again following each set of 30 responses thereafter in order to

monitor rater drift. Cohen's Kappa for all coded themes from the 133 providers was .78, which

corresponds to "excellent" agreement (Fleiss, 1981).

Content of Provider Comments Regarding Evidence-Based Practices

Comments from the 133 providers who responded to the open-ended implementation

experience question were distilled into 35 separate codes. Of these 35 codes, the most frequently

coded across all provider comments were "EBP Too Narrow/Inflexible" (9.02% of all

comments), "Helpful/Useful" (6.01%), "Helps Guide Treatment" (4.92%),

"Paperwork/Administrative Burden" (4.64%), "Unrealistic System/Agency Requirements"

(4.64%), and "Poor Client Fit" (4.64%). Ten providers (7.52% of the sample) did not make any

comments that were substantive enough to be captured in the 35 codes (e.g., "Don't have

anything [to share] at this time" or "I dislike EBPs"); thus, these providers were excluded from

analyses, resulting in a total of 123 providers represented in the following analyses. The 35 codes

were assigned a total of 366 times across provider comments, with an average of 2.75 codes

assigned per participant response. The mean frequency of the codes was 10.46 instances ($SD =$

6.25).

Utilizing the constant comparison process described earlier, the 35 coded themes were

subsequently classified into four major categories, with six subcategories, as depicted and

defined in Figure 1. Frequencies and percentages of total comments for the 35 codes, their

categories, and subcategories are presented in Table 2 along with illustrative quotes for each

coded theme. As seen in Table 2, providers commented most frequently on the category of

EBP/Treatment Fit (44.81%), which was split roughly equally between comments that described

fit of the interventions with Client needs and fit of the interventions with Therapist preferences

and background (i.e., the Client and Therapist subcategories). A substantial percentage of

comments also concerned the greater Context/Mental Health System in which EBPs were being

implemented (25.68%), including equal proportions of Transition Environment and

Administrative/Productivity concerns. The remaining comments centered around Therapeutic

Consequences of implementation (20.77%), with both Process and Clinical Outcomes and

Workforce Effects in roughly equal proportion, and the least commonly mentioned category of

Training/Support/Supervision (8.74%; no subcategories).

Valence of Provider Comments Overall and Across Content Categories

As seen in Table 2, each of the 35 codes was also tagged with a positive or negative

valence based on whether it conveyed a positive or negative impact of the EBPs or the

implementation process. Valence was determined by a consensus approach using the ungrouped

list of codes (rather than codes grouped by categories and subcategories) in order to minimize

rater bias. Frequencies and percentages of positive and negative coded comments within each

category and subcategory are presented in Figure 2.

Results revealed that 73.77% of the 366 coded comments were negatively valenced.

Within each of the four major categories, the majority of coded comments were also negative.

However, the ratio of positive to negative comments varied greatly across subcategories.

Notably, comments for both subcategories of the Context/Mental Health System category

(Administrative/ Productivity and Transition Environment) were entirely negative (100%), and

comments within the Training/Support/Supervision category were almost all negative (93.75%).

On the other hand, the Therapist subcategory of EBP/Treatment Fit was the only subcategory to

have a majority of positive comments (75.68%), whereas the Client subcategory of

EBP/Treatment Fit was mostly negative (84.44%). Finally, comments within the Therapeutic

Consequences category were more balanced in valence than the other codes (70.63% and

65.61% negative for the Process and Clinical Outcomes and Workforce Effects subcategories, respectively).

We also examined valence of comments within providers. Of the 123 providers whose feedback was assigned at least one code, 74 (60.16%) provided exclusively negative comments, 26 (21.14%) provided entirely positive comments, and 23 (18.70%) provided a mixture of negative and positive comments.

Associations Between Provider Characteristics and Provider Comments

Two provider characteristics, general attitudes and burnout, were examined as predictors of providers' qualitative, coded comments described above. Binary logistic regression analyses were conducted to examine general attitudes regarding EBP as a predictor of categories of qualitative comments. Analyses revealed that for each one-point increase in general attitudes score, the odds of making a negative comment in any category decreased by 6.80-fold (1/.15; $b =$ -1.92, *SE b* = 0.72, *OR* = 0.15, *p* < .01); the odds of making a negative comment in the Context/Mental Health System category decreased by 6.10-fold (1/.16; $b =$ -1.81, *SE b* = 0.58, *OR* = 0.16, *p* < .01); and the odds of making a negative comment in the Therapeutic Consequences category decreased by 3.33-fold (1/.30; $b =$ -1.20, *SE b* = 0.56, *OR* = 0.30, *p* < .05). Additionally, for each one-point increase in general attitudes score, the odds of making a positive comment in any category increased by 5.01-fold ($b =$ 1.61, *SE b* = 0.59, *OR* = 5.01, *p* < .01), and the odds of making a positive comment in the EBP/Treatment Fit category increased by 3.31-fold ($b =$ 1.20, *SE b* = 0.55, *OR* = 3.31, *p* < .05). No other significant effects were found for general attitudes as a predictor of negative- and positive-valence categories of feedback.

Providers' reported level of professional burnout was also examined as a predictor of categories of qualitative comments. Results of binary logistic regression analyses revealed that

for each one-point increase in burnout, the odds of making a negative comment in any category increased by 1.68-fold ($b = 0.52$, *SE b* = 0.28, *OR* = 1.68, $p = .06$), an effect that was marginally significant. Additionally, for each one-point increase in burnout, the odds of making a negative comment in the Context/Mental Health System category increased by 1.84-fold ($b = 0.61$, *SE b* = 0.22, *OR* = 1.84, $p < .01$), and the odds of making a negative comment in the Therapeutic Consequences category increased by 1.49-fold ($b = 0.40$, *SE b* = 0.21, *OR* = 1.49, $p = .06$). With regard to positive-valence comments, each one-point increase in burnout was associated with a 2.14-fold decrease in the odds of making a positive comment in any category (1/0.47; $b = -0.76$, *SE b* = 0.25, *OR* = 0.47, $p < .01$) and a 2.30-fold decrease in the odds of making a positive comment in the EBP/Treatment Fit category (1/.43; $b = -0.84$, *SE b* = 0.25, *OR* = 0.43, $p < .05$). No other significant or marginally significant effects were found for burnout as a predictor of negative- and positive-valence categories of open-ended comments.

DISCUSSION

Through the preceding investigation, we sought to explore and better understand LAC provider reactions to the drastic systemic changes (i.e., the LAC PEI transformation) precipitated by a state budget crisis. In addition to categorizing the feedback received, we examined the valence of providers' comments overall and across categories, and also tested the relationship between provider characteristics and the nature of feedback they gave.

The provider feedback obtained in this study can be summarized on multiple levels. In regard to our first research aim, we derived four primary domains of feedback from the data: Context/Mental Health System, Training/Support/Supervision, EBP/Treatment Fit, and Therapeutic Consequences. Of these domains, EBP/Treatment Fit came up most often in the feedback and comprised nearly half of the total comments received. These categories connect to

existing implementation models. For example, Aarons, Hurlburt, and Horwitz's (2011) EPIS model of dissemination discusses the "inner" and "outer" contexts in which implementation occurs. Our Context/Mental Health System category corresponds to their characterization of outer context, and our Training/Support/Supervision category maps onto their description of inner context. EBP/Treatment Fit and Therapeutic Consequences, on the other hand, represent more "within-protocol" or technology-relevant categories.

When examining the valence of provider comments (research aim two), we found a predominance of negativity: nearly 75% of all comments were deemed negative. Diffusing innovations and restructuring systems of care often entail latent assumptions, a number of which are outlined by Greenhalgh and colleagues (2008). Innovation and change – even for good purposes – always has unintended consequences. In one sense, the high proportion of negative subjective impacts reported in this study illustrates the value of considering possible unintended consequences and system member experiences during the implementation process.

In another sense, this provider negativity becomes understandable in the context of the rapid transformation effort that the LAC mental health system and its providers experienced due in part to a looming state budget crisis. PEI represented an immediate solution to a potentially disastrous situation whereby services would be discontinued, but it unfortunately necessitated rapid changes to the way care was delivered in the community. Given that practitioners were forced to make substantial changes due to the funding requirements inherent in PEI, their negativity can be considered a lesson learned about the effects of such rapid scaling.

The following comment illustrates the coded theme of provider dissatisfaction with the speed and magnitude of change they experienced during the PEI transformation: "The expectation for clinicians to balance a caseload of 15-20 clients and three to four EBPs at once, is

unrealistic. This leads to clinicians becoming a jack of all trades, but a master of none – and more importantly, contributes to burnout, high turnover of staff, and a decrease in quality of services provided." Glisson and colleagues (2008) have commented that organizational social context powerfully shapes clinicians' shared expectations, perceptions, and attitudes during the implementation process. Hence, the provider experiences reported in this study may be viewed as evidence of the social costs of large-scale, rapid reconfiguration efforts such as the PEI transformation. While more dynamic alternative methods (e.g., self-organizing, reflective systems and continuous quality improvement infrastructures; Bickman, Riemer, Breda, & Kelley, 2006; Higa-McMillan, Powell, Daleiden, & Mueller, 2011) might have allowed for a more collaborative and self-correcting transformation process, perhaps none were possible given the emergent and immediate nature of the financial crisis faced by LAC.

Our third research aim involved comparing the valence of provider feedback across categories. The overall pattern of negativity was most uniform for Context/Mental Health System and Training/Support/Supervision, indicating that providers viewed these aspects of their implementation experience (corresponding to the EPIS model's inner and outer context; Aarons, Hurlburt & Horwitz, 2011) as largely aversive during the LAC PEI transformation. The pressured timeline and mandated nature of the PEI transformation may have limited providers' sense of autonomy in selecting and implementing interventions, perhaps contributing to the uniformly negative comments about local practice context. It should be noted that providers' negative comments regarding the implementation process did not necessarily reflect their attitudes toward the actual EBPs being implemented in LAC. In contrast, comments in the intervention-related categories of EBP/Treatment Fit and Therapeutic Consequences were more

balanced, although comments in the Therapeutic Consequences category were substantially more negative than positive (70% of comments were negative).

The EBP/Treatment Fit category revealed a compelling contrast between its subcategories: providers found the fit of EBP for *themselves as therapists* to be generally positive, while they viewed its fit for *their clients* quite negatively. Many providers commented on the value of having scientific evidence behind their clinical practice: "I think it is very helpful, especially for new clinicians who have a hard time figuring out what specific interventions to do with clients." Consistent with Palinkas and colleagues (2013), therapist feedback on the topic of EBPs' fit for their clients was almost uniformly negative: "Most of my clients are so concerned with where they are going to live, what they are going to eat, if someone is going to harm them on their way home from school. I don't discount any of the EBPs, I just feel like clients are facing a lot of external stressors and risk factors that most EBPs don't help with." Some providers were able to illustrate the contrast between value to themselves and poor fit to their clients in a single statement, such as: "While I enjoy having evidence to guide practice, I have found EBPs to be confining, with more of a focus on the financial and governmental side than the client side."

A recent paper on therapist satisfaction with EBP has suggested that, in a head-to-head trial comparing usual care (UC) to both modular and standard manualized EBPs, therapists perceived the modular intervention and UC to be more *responsive* to client needs than the standardized EBP, while the modular and standard EBPs were perceived as being more *effective* in promoting change (Chorpita et al., 2015). Given these findings, one can see how providers might endorse positive views toward one aspect of EBP (i.e., effectiveness of the intervention) while simultaneously holding a contrasting view about another aspect of EBP (i.e., lack of

responsiveness to one's caseload). The predominance of complaints about Client Fit in the current study supports Chorpita and Daleiden's (2014) assertion that improving the flexibility and real-time adaptability of our current treatments will help push EBP from a static, manualized format to a more adaptable architecture suitable for the diverse and complex caseloads providers report encountering in their routine clinical work.

We also used quantitative methods to parse respondent feedback by provider characteristics in order to explore our fourth research aim. Generally, we found that two characteristics (burnout and general EBP attitudes) differentiated respondents' feedback. Finding differences in clinician feedback when parsing respondents by attitudes and burnout served to validate the qualitative coding, as it demonstrated that characteristics we would expect to influence provider views on the implementation process were in fact associated with the valence of their responses in logical directions (e.g., lower burnout and more positive EBP attitudes were associated with an increased likelihood of making a positive comment). Burnout and attitudes have been associated with each other in previous studies (e.g., Reding et al., 2014) and each construct has been connected to increased risk of staff turnover (Aarons & Sawitzky, 2006).

Limitations

There are several limitations to the current study. First, provider feedback was based on responses to a single item and thus providers were not queried about specific aspects of the implementation experience, nor were there opportunities to follow up on the information provided. It would have been preferable to solicit feedback from providers in an interview format where probes and follow-up questions could be tailored to deepen our understanding of individual responses. Unfortunately, this methodology was not feasible given the limited time resources of providers at the training event.

Second, there was a relatively low response rate for participants providing qualitative feedback: 38% of respondents from the previous attitudes study and 26% of total attendees at the training event. While we found no group differences on numerous characteristics (e.g., attitudes, burnout, experience) between the 133 current study participants and the 215 training event attendees who provided quantitative but not qualitative feedback, it is possible that some differences may have gone undetected.

Third, all participants provided their open-ended feedback after completing an EBP attitudes questionnaire. It is possible that those who provided qualitative feedback did so to explain their answers to the structured items on the measure. Although we could reasonably expect the questionnaire to offer exemplars of comments for providers to later nominate, there is no reason to believe that any particular aspect of the implementation process would be emphasized more than any other (since the number of items was similar across domains in the questionnaire) or that the positive/negative tone of the comments would be influenced (since the questionnaire was worded in neutral terms, with therapists rating their level of agreement).

Future Directions

Further studies should utilize in-depth individual interviews to deepen our understanding of the themes introduced in this paper. For example, future investigators might explore qualitatively whether providers feel that their negativity about some domains of the implementation process (e.g., context) influences their ability and willingness to engage in other necessary aspects of the process (e.g., using the specified EBPs with fidelity), or investigate this relationship via a mixed methods approach with an objective measure of fidelity. Given the apparent effects of the PEI rollout on provider experiences in this study, a better understanding of which aspects most affected providers (e.g., pace of rollout, number of trainings, billing

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changes, etc.) would be highly useful in planning future transformations. Such data would give treatment designers and policymakers a better sense of where to apply their expertise in order to most impact providers' implementation experiences.

Another area of future exploration is the issue of EBPs' fit to therapist versus client needs. Given our surprising findings that providers can draw this distinction and that their positivity toward Therapist Fit differed considerably from their negativity toward Client Fit, learning more about the relative influence of each factor (e.g., how each predicts EBP use over time) could provide insight into how providers make implementation decisions. Given existing evidence that providers may use EBPs in cases when the intended disorder is not present (Tsai, Border, Park, Guan, & Chorpita, 2016), it may be the case that provider preferences outweigh client needs in providers' selection of practices and/or that therapist fit and client fit are orthogonal constructs.

Summary and Conclusions

The current study expanded on our previous attitudes paper, offering a richer description of providers' EBP implementation experiences in LAC. These providers communicated an important message through this study: the capability of EBPs to treat a variety of clinical phenomena as well as to manage critical events is perceived as extremely important (as seen from the high frequency of comments in the EBP/Treatment Fit category), yet lacking in the currently available options (as seen from the negative valence of Client Fit codes). Increasing the adaptability of EBPs to various client concerns is accessible to treatment developers and generalizable to many service contexts, and this essential work has already begun in the form of modular treatments (e.g., MATCH; Chorpita & Weisz, 2005) and budding research on emergent life events (Guan et al., 2015).

An underlying implication of this study is that providers are willing – even in the midst of a large training event – to engage in the feedback process and to provide meaningful input about their needs. Hence, their inclusion early on in the decision-making process could provide valuable insight into potential barriers to the success of an implementation effort. The EBP implementation process is fraught with complexity and context-specific challenges that require the cooperation of various stakeholders at many interdependent levels of decision-making. These findings suggest that lasting improvement to a system requires an ongoing exchange between system members and change agents. Improving collaboration between providers and developers holds great promise for the continued implementation of EBP in routine clinical care and the optimization of services for the millions of youth and families with mental health needs.

Table 1.

Participant demographic information.

Variable	Mean	SD	N	%
Age	35.77	9.36		
Gender				
Male			23	17.3
Female			110	82.7
Licensed in CA			60	45.1
Clinical supervisor status			41	30.8
Degree				
Master's			120	90.2
Doctoral			13	9.8
Ethnicity				
Spanish/Hispanic/Latino			52	39.1
White/Caucasian/European-American			52	39.1
Asian			16	12.0
Black/African-American			8	6.0
Mixed/Other			3	2.3
Primary theoretical orientation				
Cognitive-Behavioral			54	40.6
Eclectic			51	38.3
Family Systems			15	11.3
Humanistic			9	6.8
Psychodynamic			2	1.5
Other			1	0.8
Time since degree (yrs.)	6.73	6.81		
Avg. burnout (0 "Never" - 4 "All the Time")	1.86	0.90		
Avg. caseload size	14.11	8.22		
Ideal caseload size	13.01	4.75		
Hrs. billed per wk. for EBP	12.59	8.58		
Hrs. billed per wk. for non-EBP	9.19	7.92		
Hrs. of supervision per wk. for EBP	1.30	1.06		
Hrs. of supervision per wk. for non-EBP	1.26	1.00		

Table 2.

Frequencies and examples of provider comments regarding evidence-based practices.

Category, Subcategories, and Coded Themes (Positive or Negative Valence)	Frequency (% of Total Comments)	Example
Category: Context/Mental Health System	94 (25.68%)	
Subcategory: Administrative/Productivity	58 (15.85%)	
Paperwork/Administrative Burden (-)	17 (4.64%)	"The increase in paperwork creates tension; frustration; anxiety."
Problems with Outcome Measurement (-)	14 (3.83%)	"EBPs require using A LOT of outcome measures and it's not necessarily straightforward."
Billing Concerns (-)	12 (3.28%)	"Lots of preparation equals no billable hours."
Time Constraint (-)	9 (2.46%)	"... having to fit clients into time frames of sessions that are completely unrealistic with the types of highly impaired families we have."
Heavy Caseload (-)	6 (1.64%)	"With... expected client caseload from my agency, I think it compromises the efficacy of using EBPs."
Subcategory: Transition Environment	36 (9.84%)	
Unrealistic System/Agency Requirements (-)	17 (4.64%)	"... fitting [EBP] with DMH [Department of Mental Health] requirements is extremely complicated and difficult."
Multiple EBP Environment (-)	7 (1.91%)	"There are so many components to keep track of due to having to implement more than one EBP."
EBP Financial Concerns (-)	6 (1.64%)	"They were rolled out too quickly – due to funding concerns."
Changing Environment/Conflicting Info (-)	6 (1.64%)	"There is a lot of conflicting information that is given because of new and constant changes."

Category: Training/Support/Supervision	32 (8.7%)	
Training Issues (-)	15 (4.10%)	"DMH provides limited trainings in increasing clinicians EBP."
Consultation/Support Issues After Training (-)	15 (4.10%)	"I think all supervisors need to be trained in EBPs to provide effective supervision."
Satisfied with Training & Support (+)	2 (0.55%)	"Great trainers, great follow-up and workshops."
Category: EBP/Treatment Fit	164 (44.81%)	
Subcategory: Client	90 (24.59%)	
EBP Too Narrow/Inflexible (-)	33 (9.02%)	"Don't offer enough clearly articulated adaptations for work with clients with demographics similar to those utilizing public mental health in LA."
Poor Client Fit (Unspecified) (-)	17 (4.64%)	"Many of the EBPs don't fit with the clients that many of us see."
EBPs Tailor Treatment, Are Flexible (+)	14 (3.83%)	"[EBP] leaves space and opportunity to individualize treatment for clients and are adaptable enough for therapists to be creative."
Does Not Address Immediate Stressors (-)	12 (3.28%)	"... clients are facing a lot of external stressors and risk factors that most EBPs don't help with."
Language Barriers with Materials (-)	5 (1.37%)	"... we don't have appropriate materials translated to Spanish for families to understand."
Research Applicability Problem (-)	5 (1.37%)	"Some of the EBPs haven't been researched on the specific populations I work with."
Does Not Address Cultural Issues (-)	4 (1.09%)	"EBPs seem to have been created for a particular culture (Caucasians) and they do not take into account cultural issues."
Subcategory: Therapist	74 (20.22%)	
Helpful/Useful (Unspecified) (+)	22 (6.01%)	"EBPs are helpful overall."
Helps Guide Treatment (+)	18 (4.92%)	"I like EBPs as a framework or ideas for treatment planning."

Conflicts with/Excludes Other Orientations (-)	12 (3.28%)	"It can be hard to fit my work into an EBP after having so much psychodynamic training and practice."
Complementary with Other Skills/Training (+)	9 (2.46%)	"I think they are great when you add them to the skills that a therapist may already possess."
Easy to Use (+)	7 (1.91%)	"The Guides... help new therapists learn techniques more easily and readily."
Too Complex/Confusing (-)	6 (1.64%)	"Confusion over what does/doesn't need to be in chart for [EBP]."
Category: Therapeutic Consequences	76 (20.77%)	
Subcategory: Process and Clinical Outcomes	48 (13.11%)	
Improved Clinical Progress (+)	12 (3.28%)	"They have given new life to my practice... more effectiveness."
De-prioritization of Client/Process Factors (-)	11 (3.01%)	"There needs to be a larger emphasis on clinical competence and intuition rather than following a manual."
Client Resistance to EBP (-)	7 (1.91%)	"Most parents are not willing to fill out forms."
Decrease in Service Quality (-)	6 (1.64%)	"EBPs in general are time consuming, limiting and diminish quality of client care."
Impact on Rapport (-)	5 (1.37%)	"It feels awkward and forced which negatively impacts my rapport/ relationship with clients."
Outcome Measurement Valuable (+)	7 (1.91%)	"Clients/families are able to visualize their progress, and/or identify clinical needs through EBT practices."
Subcategory: Workforce Effects	28 (7.65%)	
Burnout (Overwhelming) (-)	11 (3.01%)	"The trickle down effect [from DMH anxiety] leads to professional burnout from notes, plus outcome measures, plus trying to implement multiple EBPs."
Added Workload/Time Consuming (-)	7 (1.91%)	"It can be very time consuming outside of clinical sessions."
Improves Clinical Skills (+)	5 (1.37%)	"The Practice Guides I find to be helpful in gaining new, specific skills to address client symptoms."

| Less Fidelity (-) | 5 (1.37%) | "... the model probably isn't implemented the way it is designed to." |

Note: Positive or negative valence was assigned to each theme based on whether it demonstrated a positive or negative attitude toward EBPs or the implementation process.

Figure 1. Definitions of categories and subcategories of coded themes.

The systemic effects of EBP implementation, regardless of the specific EBPs being used

Context/ Mental Health System

Administrative/ Productivity

The day-to-day logistical consequences of the implementation of EBPs, such as paperwork and billing

Transition Environment

Broader issues resulting from changes to the EBP implementation process (e.g., the PEI transformation)

Factors related to the uptake and durability of EBP implementation

Training/Support/ Supervision

The suitability and adaptability of EBPs given the treatment setting

EBP/Treatment Fit

Client

The suitability and adaptability of EBPs for the client

Therapist

The suitability and adaptability of EBPs for the therapist or provider

The impact of EBPs on therapy process and outcome

Therapeutic Consequences

Process and Clinical Outcomes

The impact of EBPs on in-session factors in therapy, such as the clinical relationship and clinical progress

Workforce Effects

The impact of EBPs on broader workforce factors, such as therapist burnout, that less directly influence therapeutic outcome
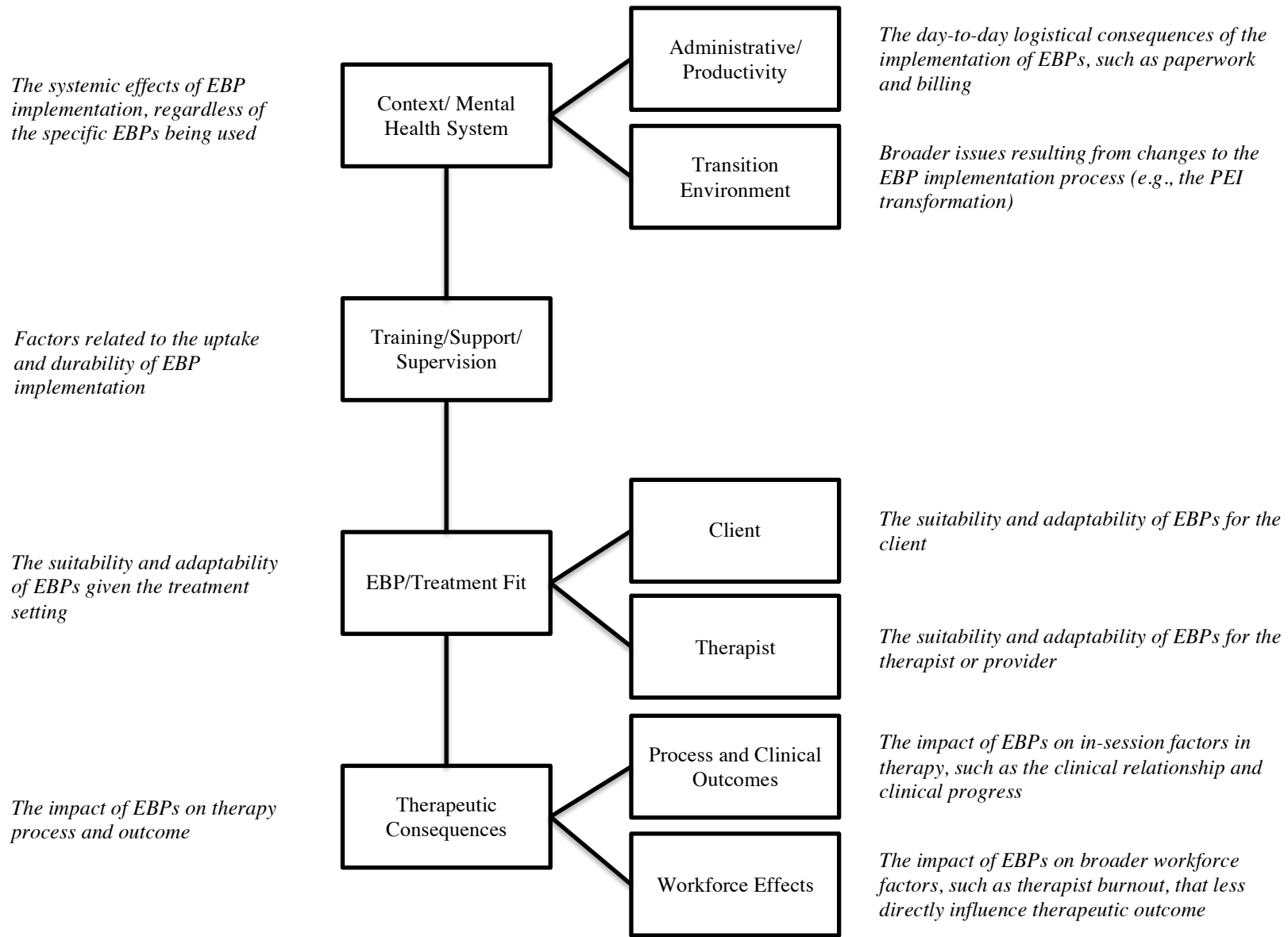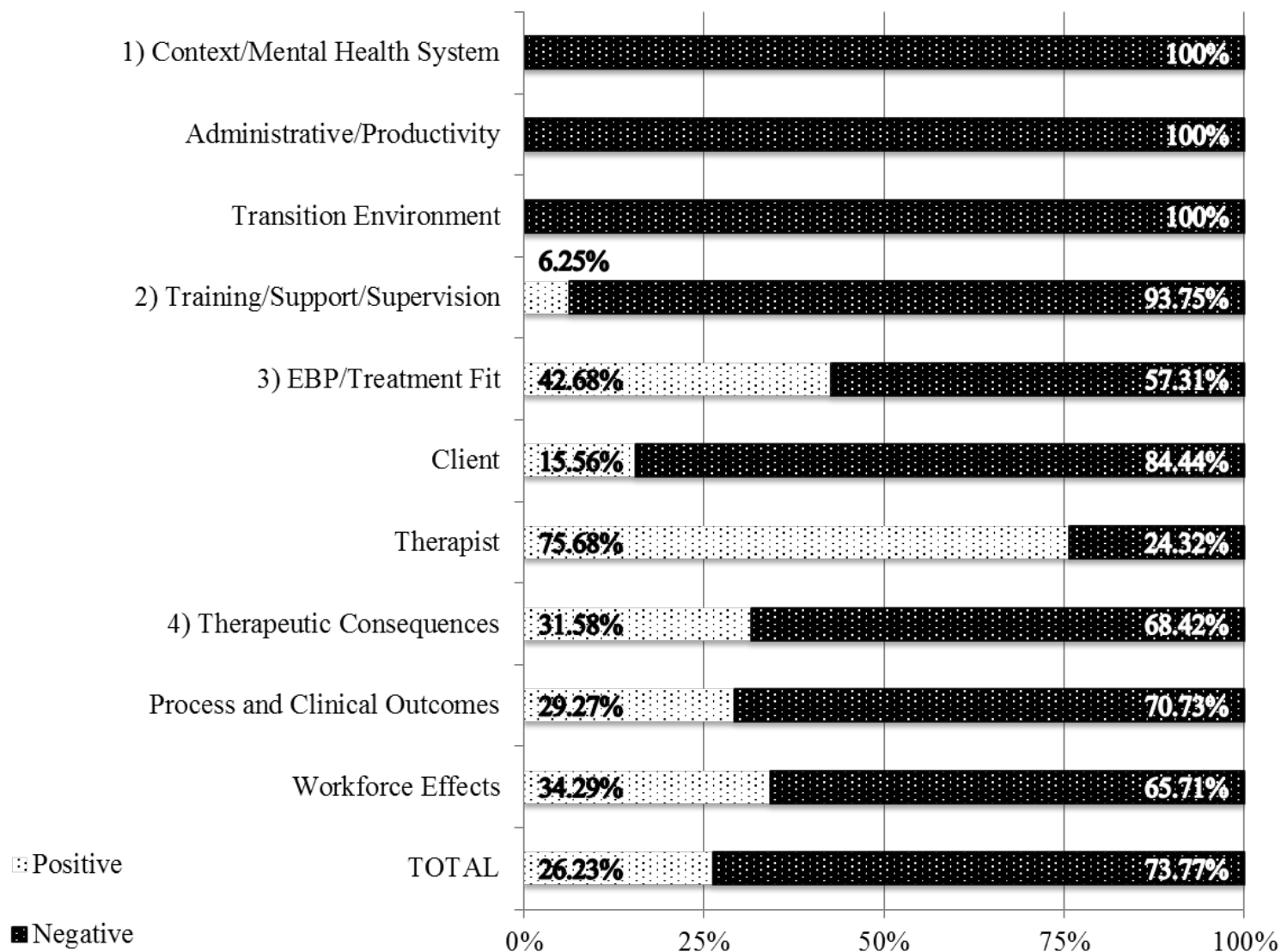
Figure 2. Positive and negative coded comments regarding EBPs by category and subcategory.

REFERENCES

Aarons, G. A. (2004). Mental health provider attitudes toward adoption of evidence-based practice: The Evidence-Based Practice Attitude Scale (EBPAS). *Mental Health Services Research*, *6*(2), 61-74. doi:10.1023/B:MHSR.0000024351.12294.65

Aarons, G. A, Cafri, G., Lugo, L., & Sawitzky, A. (2012). Expanding the domains of attitudes towards evidence-based practice: The Evidence Based Practice Attitude Scale-50. *Administration and Policy in Mental Health, 39*(5), 331–340. doi:10.1007/s10488-010-0302-3

Aarons, G. A., Glisson, C., Hoagwood, K., Kelleher, K., Landsverk, J., & Cafri, G. (2010). Psychometric properties and U.S. national norms of the Evidence-Based Practice Attitude Scale (EBPAS). *Psychological Assessment, 22*(2), 356-365. doi:10.1037/a0019188

Aarons, G. A., Hurlburt, M. S., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health*, *38*(1), 4-23. doi:10.1007/s10488-010-0327-7

Aarons, G. A., & Palinkas, L. A. (2007). Implementation of evidence-based practice in child welfare: Service provider perspectives. *Administration and Policy in Mental Health and Mental Health Services Research*, *34*(4), 411-419. doi:10.1007/s10488-007-0121-3

Aarons, G. A., & Sawitzky, A. C. (2006). Organizational culture and climate and mental health provider attitudes toward evidence-based practice. *Psychological Services*, *3*(1), 61-72. doi:10.1037/1541-1559.3.1.61

Bickman, L., Riemer, M., Breda, C., & Kelley, S. D. (2006). CFIT: A system to provide a continuous quality improvement infrastructure through organizational responsiveness,

measurement, training, and feedback. *Report on Emotional and Behavioral Disorders in Youth*, *6*(4), 86-87.

Castonguay, L. G., Nelson, D. L., Boutselis, M. A., Chiswick, N. R., Damer, D. D., Hemmelstein, N. A., ... & Borkovec, T. D. (2010). Psychotherapists, researchers, or both? A qualitative analysis of psychotherapists' experiences in a practice research network. *Psychotherapy: Theory, Research, Practice, Training*, *47*(3), 345. doi:10.1037/a0021165

Chorpita, B. F., & Daleiden, E. L. (2014). Structuring the collaboration of science and service in pursuit of a shared vision. *Journal of Clinical Child & Adolescent Psychology*, *43*(2), 323-338. doi:10.1080/15374416.2013.828297

Chorpita, B. F., Daleiden, E. L., & Collins, K. S. (2013). Managing and adapting practice: A system for applying evidence in clinical care with youth and families. *Clinical Social Work Journal*, 1-9. doi:10.1007/s10615-013-0460-3

Chorpita, B. F., Daleiden, E. L., Ebesutani, C., Young, J., Becker, K. D., Nakamura, B. J., … Trent, L. (2011). Evidence-based treatments for children and adolescents: An updated review of indicators of efficacy and effectiveness. *Clinical Psychology: Science and Practice*, *18*(2), 154–172. doi:10.1111/j.1468-2850.2011.01247.x

Chorpita, B. F., & Weisz, J.R. (2005). *Modular approach to therapy for children with anxiety, depression, or conduct problems*. Honolulu and Boston: University of Hawaii at Manoa and Judge Baker Children's Center, Harvard Medical School.

Chorpita, B. F., Park, A., Tsai, K., Korathu-Larson, P., Higa-McMillan, C. K., Nakamura, B. J., ... & Krull, J. (2015). Balancing effectiveness with responsiveness: Therapist satisfaction

across different treatment designs in the Child STEPs randomized effectiveness trial. *Journal of consulting and clinical psychology*, *83*(4), 709. doi:10.1037/a0039301

Chorpita, B. F., Yim, L. M., Donkervoet, J. C., Arensdorf, A., Amundsen, M. J., McGee, C., … Morelli, P. (2002). Toward large-scale implementation of empirically supported treatments for children: A review and observations by the Hawaii empirical basis to services task force. *Clinical Psychology: Science and Practice, 9,* 165–190. doi:10.1111/j.1468-2850.2002.tb00504.x

Dorsey, S., Berliner, L., Lyon, A.R., Pullmann, M.D., & Murray, L.K. (2014). A statewide common elements initiative for children's mental health. *Journal of Behavioral Health Services & Research,* 1-15. doi:10.1007/s11414-014-9430-y

Fleiss, J. L. (1981). *Statistical methods for rates and proportions* (2nd ed.). New York: John Wiley.

Glaser, B. G. (1965). The constant comparative method of qualitative analysis. *Social Problems*, *12*(4), 436-445. doi:10.2307/798843

Glaser, B. G., & Strauss, A. L. (1967). The discovery of grounded theory: Strategies for qualitative research. New York: Aldine de Gruyter.

Glisson, C. (2002). The organizational context of children's mental health services. *Clinical Child and Family Psychology Review*, *5*(4), 233-253. doi:10.1023/A:1020972906177

Glisson, C., Landsverk, J., Schoenwald, S., Kelleher, K., Hoagwood, K. E., Mayberg, S., & Green, P. (2008). Assessing the organizational social context (OSC) of mental health services: Implications for research and practice. *Administration and Policy in Mental Health and Mental Health Services Research*, *35*(1-2), 98-113. doi:10.1007/s10488-007-0148-5

Glisson, C., & Schoenwald, S. K. (2005). The ARC organizational and community intervention

strategy for implementing evidence-based children's mental health treatments. *Mental*

Health Services Research, *7*(4), 243-259. doi:10.1007/s11020-005-7456-1

Greenhalgh, T., Robert, G., Bate, P., Macfarlane, F., & Kyriakidou, O. (2008). *Diffusion of*

innovations in health service organisations: a systematic literature review. John Wiley &

Sons.

Guan, K., Levy, M. C., Kim, R. E., Brown, T. E., Reding, M. E., Rith-Najarian, L., ... &

Chorpita, B. F. (2015). Managing in-session "surprises:" Provider responses to emergent

life events during evidence-based treatment implementation. *Administration and Policy*

in Mental Health and Mental Health Services Research, 1-13. doi:10.1007/s10488-015-

0692-3

Higa-McMillan, C. K., Powell, C., Daleiden, E. L., & Mueller, C. W. (2011). Pursuing an

evidence-based culture through contextualized feedback: Aligning youth outcomes and

practices. *Professional Psychology: Research and Practice*, *42*(2), 137.

doi:10.1037/a0022139

Hoagwood, K.E., Olin, S.S., Horwitz, S, McKay, M, Cleek, A, Gleacher, A., Lewandowski, E.,

Nadeem, E., Acri, M., Chor, K.H.B, Kuppinger d, A., Burton, G, Weiss, D., Frank, S.,

Finnerty, M., Bradbury, D.M., Woodlock, K.M., & Hogan, M. (2014). Scaling up

evidence-based practices for children and families in New York State: Toward evidence-

based policies on implementation for state mental health systems. *Journal of Clinical*

Child and Adolescent Psychology, 43(2), 145-157. doi:10.1080/15374416.2013.869749

Kataoka, S. H., Zhang, L., & Wells, K. B. (2002). Unmet need for mental health care among

    U.S. children: Variation by ethnicity and insurance status. *The American Journal of*

    Psychiatry, 159(9), 1548–1555. doi:10.1176/appi.ajp.159.9.1548

Kazdin, A. E. (2008). Evidence-based treatment and practice: New opportunities to bridge

    clinical research and practice, enhance the knowledge base, and improve patient care.

    American Psychologist, 63(3), 146-159. doi:10.1037/0003-066X.63.3.146

Kazdin, A. E., & Blase, S. L. (2011). Rebooting psychotherapy research and practice to reduce

    the burden of mental illness. *Perspectives on Psychological Science*, *6*(1), 21–37.

    doi:10.1177/1745691610393527

Merikangas, K. R., Nakamura, E. F., & Kessler, R. C. (2009). Epidemiology of mental disorders

    in children and adolescents. *Dialogues in Clinical Neuroscience, 11*, 7–20.

Palinkas, L. A., Weisz, J. R., Chorpita, B. F., Levine, B., Garland, A. F., Hoagwood, K. E., &

    Landsverk, J. (2013). Continued use of evidence-based treatments after a randomized

    controlled effectiveness trial: A qualitative study. *Psychiatric Services*, *64*(11), 1110-

    1118. doi:10.1176/appi.ps.004682012

Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009).

    Implementation research in mental health services: An emerging science with conceptual,

    methodological, and training challenges. *Administration and Policy in Mental Health and*

    Mental Health Services Research, *36*(1), 24-34. doi:10.1007/s10488-008-0197-4

Reding, M. E. J., Chorpita, B. F., Lau. A. S., & Innes-Gomberg, D. (2014). Providers' attitudes

    toward evidence-based practices: Is it just about providers, or do practices matter, too?

    Administration and Policy in Mental Health and Mental Health Services Research, 41,

    767–776. doi:10.1007/s10488-013-0525-1

Schoenwald, S. K., Kelleher, K., & Weisz, J. R. (2008). Building bridges to evidence-based

 practice: The MacArthur foundation child system and treatment enhancement projects

 (Child STEPs). *Administration and Policy in Mental Health and Mental Health Services*

 Research, *35*(1-2), 66-72. doi:10.1007/s10488-007-0160-9

Southam-Gerow, M. A., Daleiden, E. L., Chorpita, B. F., Bae, C., Mitchell, C., Faye, M., &

 Alba, M. (2014). MAPping Los Angeles County: Taking an evidence-informed model of

 mental health care to scale. *Journal of Clinical Child & Adolescent Psychology*, *43*(2),

 190–200. doi:10.1080/15374416.2013.833098

Southam-Gerow, M. A., Ringeisen, H. L., & Sherrill, J. T. (2006). Integrating interventions and

 services research: Progress and prospects. *Clinical Psychology: Science and Practice*,

 13(1), 1-8. doi:10.1111/j.1468-2850.2006.00001.x

Southam-Gerow, M. A., Weisz, J. R., Chu, B. C., McLeod, B. D., Gordis, E. B., & Connor-

 Smith, J. K. (2010). Does cognitive behavioral therapy for youth anxiety outperform

 usual care in community clinics? An initial effectiveness test. *Journal of the American*

 Academy of Child & Adolescent Psychiatry, *49*(10), 1043-1052.

 doi:10.1016/j.jaac.2010.06.009

Teachman, B. A., Drabick, D. A., Hershenberg, R., Vivian, D., Wolfe, B. E., & Goldfried, M. R.

 (2012). Bridging the gap between clinical research and clinical practice: Introduction to

 the special section. *Psychotherapy*, *49*(2), 97. doi:10.1037/a0027346

Tsai, K. H., Border, R., Park, A. L., Guan, K., & Chorpita, B. F. (2016). *Is dissemination of*

 evidence-based treatment a strategy or a goal? Implications for off-label use of evidence-

 based approaches. Manuscript in preparation.

Weisz, J. R., Chorpita, B. F., Palinkas, L. A., Schoenwald, S. K., Miranda, J., Bearman, S. K., ...

    & Gibbons, R. D. (2012). Testing standard and modular designs for psychotherapy

    treating depression, anxiety, and conduct problems in youth: A randomized effectiveness

    trial. *Archives of General Psychiatry*, *69*(3), 274.

    doi:10.1001/archgenpsychiatry.2011.147

Wiborg, J.F., Knoop, H., Wensing, M. & Bleijenberg, G. (2012). Therapist effects and the

    dissemination of cognitive behavior therapy for chronic fatigue syndrome in community-

    based mental health care. *Behavior Research and Therapy, 50,* 393-396.

    doi:10.1016/j.brat.2012.03.002

Willms, D. G., Best, J. A., Taylor, D. W., Gilbert, J. R., Wilson, D., Lindsay, E. A., & Singer, J.

    (1990). A systematic approach for using qualitative methods in primary prevention

    research. *Medical Anthropology Quarterly*, *4*(4), 391-409.

    doi:10.1525/maq.1990.4.4.02a00020

CHAPTER 3:

Finding Opportunities to Enhance Evidence-Based Treatment

Through Provider Feedback:

A Qualitative Study

ABSTRACT

The Child System and Treatment Enhancement Projects (Child STEPs) clinical trials have endeavored to help bridge the gap between science and practice in children's mental health services. The current study used a qualitative focus group approach to explore the factors influencing provider implementation experiences with an innovative modular treatment design during the Child STEPs effectiveness trial in Los Angeles. Themes from the focus group discussions – including consultation, flexibility, treatment fit, study influences, and context – are presented and their implications explored. Two potential avenues for addressing provider concerns were considered: design strategies and supportive strategies. In the service context of Los Angeles, provider feedback suggested that the treatment's fit to diverse client populations was a central concern, and that the ongoing consultation process meaningfully influenced provider perceptions of treatment flexibility in meeting client needs.

Keywords: qualitative feedback, provider attitudes, evidence-based treatment, community mental health, dissemination and implementation

INTRODUCTION

Since 2003, the Child System and Treatment Enhancement Projects (Child STEPs) have

sought to bridge the gap between the science and practice of children's mental health services.

Guided by a conceptual framework accounting for system- and organization-level influences on

the dissemination and implementation process (Schoenwald, Kelleher, & Weisz, 2008), the Child

STEPs clinic treatment projects have evaluated the effectiveness of an innovative modular

approach to evidence-based treatment (EBT). This modular approach allows providers to apply

common EBT components (e.g., psychoeducation, exposure) for multiple diagnoses as guided by

a flexible decision-making algorithm (Chorpita, Daleiden, & Weisz, 2005). In this way, the

modular approach can be tailored towards individual client needs such as comorbidity or a slow

rate of learning (e.g., through repetition of modules as needed).

The modular treatment employed in the Child STEPs trials was intended to be more

flexible than standard manualized approaches (i.e., manuals targeting a single diagnosis using a

predetermined sequence of treatment strategies), but more structured than usual care (i.e., fully

flexible treatment that does not typically contain intensive doses of evidence-based content; e.g.,

Garland et al., 2010). Weisz and colleagues (2012) conducted the Child STEPs multisite trial, a

randomized effectiveness trial in Massachusetts and Hawaii comparing these three approaches to

treatment: a) standard manualized EBT, b) the *Modular Approach to Therapy for Children with*

Anxiety, Depression, or Conduct Problems (MATCH; Chorpita & Weisz, 2005), a modular EBT

with the same content as the standard EBTs but which supplies providers with infrastructural

supports to adapt the treatment to client needs as described above, and c) usual care. Results

indicated that MATCH outperformed standard EBTs and usual care on various clinical outcome

measures (Weisz et al., 2012) and that MATCH continued to outperform usual care over a two-

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year post-treatment period (Chorpita et al., 2013). Providers' attitudes toward EBT also improved after training in the modular condition as compared to the standard EBT condition, suggesting that providers responded more positively to the increased flexibility offered by the modular design (Borntrager, Chorpita, Higa-McMillan, & Weisz, 2009). Taken together, results from the Child STEPs multisite study indicated that informed adaptation (i.e., a balance of structure and flexibility as guided by evidence-based principles) is an important protocol design feature to improve the fit of EBTs with community settings.

The most recent Child STEPs clinic treatment projects sought to push the boundaries of the modular design innovation found to be successful in the previous multisite trial by exploring its effectiveness in a more complicated community context in Los Angeles, California. As the largest county-operated mental health service system in the nation, the Los Angeles County Department of Mental Health (LACDMH) supplies the county with almost 90% of its child and adolescent services (Southam-Gerow et al., 2014). The Child STEPs Los Angeles trial was unique in that it took place in the midst of a system-wide initiative designed to increase EBT dissemination and implementation. In 2009, LACDMH implemented the Prevention and Early Intervention (PEI) transformation, which limited mental health service reimbursement for youths to 52 EBTs. The PEI transformation also initially provided agencies with implementation support (i.e., training and consultation) for six EBTs. As practicing LACDMH providers, all participants in the STEPs Los Angeles trial were subject to considerable external pressure to implement EBTs with their entire caseloads. In addition to these system-wide changes, it was expected that the community populations served in the Child STEPs Los Angeles trial would be especially challenging, with 85% of the client population identifying as ethnic minorities (LACDMH, 2014) and initial analyses revealing over two-thirds of families reporting an annual

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income under $19,999 as well as at least one emergent life event (ELE; an unexpected, significant stressor not part of the initial focus of treatment) over the course of treatment (Chorpita, Korathu-Larson, Knowles, & Guan, 2014).

Qualitative Provider Feedback

Qualitative research serves an important role in dissemination and implementation efforts such as Child STEPs, deepening and contextualizing our understanding of the implementation experience and complementing the breadth of understanding offered by quantitative findings (Palinkas, 2014). For instance, while the primary outcome and attitudes data supported the effectiveness and desirability of the MATCH intervention during the Child STEPs multisite trial, these quantitative data did not provide insight into how providers used the study's EBT protocols after the study. By interviewing study participants, Palinkas and colleagues (2013) examined providers' sustained EBT use during the period following the Child STEPs multisite trial. They determined that the continued use of EBTs by study providers was quite common, and that adaptation in continued EBT utilization was the norm rather than the exception. These qualitative data offered important information to treatment developers and other stakeholders regarding the sustainability and nature of EBT use after initial implementation.

Consistent with a continuous quality improvement framework (e.g., Bishop & Dougherty, 2005), qualitative research also exposes new pathways to improve existing innovations. Given the complexity of the Child STEPs Los Angeles trial's context and population, on-the-ground feedback from providers could allow developers to improve the innovation's adaptability to challenging contexts. In addition to affording developers the opportunity to improve the quality of current innovations offered, qualitative feedback from study providers in effectiveness trials is needed to identify which contextual supports are necessary to help providers successfully

implement the innovations in more complex and challenging treatment environments. Below, we outline two ways qualitative provider feedback can be used toward this aim of continually improving interventions.

Strategies for Responding to Provider Feedback

The implementation literature suggests a number of influences on providers' attitudes toward and use of EBTs that could be targeted to improve implementation quality. Among these influences are the organizational social context surrounding the EBT being implemented (e.g., Glisson et al., 2008), support in the form of training and ongoing consultation (e.g., Beidas & Kendall, 2010), provider characteristics and beliefs (e.g., Addis & Krasnow, 2000), and characteristics of the intervention itself (e.g., Chorpita, Daleiden, & Weisz, 2005). This paper will focus on design characteristics of the intervention and supportive processes accompanying the intervention as two accessible change avenues for improving the implementation process.

Design strategies. In recent years, the importance of design-centered solutions – including protocol design, service system design, and instructional design – has been increasingly highlighted in the domain of dissemination and implementation. Design-centered solutions typically begin with an assessment of stakeholder (e.g., provider) needs, development of a technology (e.g., a treatment or training approach) to meet those needs, implementation of the technology, and evaluation of its effectiveness within the proposed setting (e.g., Weingardt, 2004). One example of a design-centered conceptual strategy in implementation is Weingardt's instructional design and technology (IDT; 2004) approach to training in manual-based therapies, which proposes user-friendly, web-based formats to actively engage providers in the learning process. The deployment-focused model for the development and testing of psychotherapies (Weisz, Jensen, & McLeod, 2005) provides another example of a design-centered conceptual

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approach, proposing that treatments should be designed and tested within the real-world clinical contexts for which they are intended.

The Child STEPs trials, described above, aimed to modify the design of standard EBT protocols to address longstanding concerns expressed by stakeholders. Specifically, in response to community mental health providers' concerns that EBTs are unable to fully address the complexity of their clients (e.g., Addis & Krasnow, 2000), the modular treatment (MATCH) in those trials was designed to meet common emergent client needs such as comorbidity or a slow rate of learning (Weisz et al., 2012). For instance, decision flowcharts within MATCH allowed for providers to move from a default sequence of modules for anxiety to modules for depression if evidence showed that the client was experiencing interfering depressive symptoms. Furthermore, provider feedback regarding the high prevalence of client trauma in the STEPs multisite trial motivated the inclusion of trauma as a fourth diagnostic area in the newest iteration of MATCH (MATCH-ADTC; Chorpita & Weisz, 2009) used in the Los Angeles trial. Thus, MATCH represents one effort by researchers to employ a design-centered solution to stakeholder concerns, with evidence for both increased clinical effectiveness (Weisz et al., 2012) and improved provider attitudes (Borntrager et al., 2009) and satisfaction with treatment (Chorpita et al., 2015).

Supportive strategies. Provider attitudes are a widely acknowledged barrier to uptake and sustained use of EBTs, and have been shown to predict self-reported EBT use (Nelson & Steele, 2007) as well as being associated with key implementation factors such as leadership, training experiences, and burnout (e.g., Aarons & Sommerfeld, 2012; Lim et al., 2012; Aarons et al., 2009). Several studies have also demonstrated that providers' attitudes can shift during the implementation process, in particular through the supportive processes of training and ongoing

consultation. For example, Borntrager et al. (2009) demonstrated improvements in provider attitudes toward EBT following training, and Jensen-Doss, Cusack, and de Arellano (2008) have found a similar effect from pre- to post-training for Trauma-Focused CBT. Another supportive aspect of the implementation process associated with provider utilization of EBT has been ongoing consultation. Edmunds and colleagues (2014) found that greater participation in consultation predicted greater sustainment of CBT two years after receiving training and consultation. Beidas, Edmunds, Marcus, & Kendall (2012) also demonstrated that the number of consultation hours following EBT training predicted greater provider adherence and skill (measured via a coded structured role-play) at 3-month follow-up. Thus, evidence suggests that supportive components of the implementation process such as training and ongoing consultation can influence provider EBT attitudes, adherence, and skill, and may therefore be important avenues through which to address provider concerns about EBTs.

Study Aims

The current study had two primary aims. First, we sought to identify the themes present in provider focus group discussions following the Child STEPs Los Angeles trial. By engaging study providers in a discussion of implementation of the MATCH protocol in Los Angeles, we sought to better understand their complex experiences in applying an innovative modular treatment to a diverse population during a period of significant transition in local service delivery policy. Given evidence that providers used standard and modular EBTs in a manner consistent with a modular design framework (Palinkas et al., 2013), we wished to uncover other aspects of the intervention that could be enhanced to increase the likelihood of sustained, effective use.

Our second aim was to suggest avenues through which provider feedback could be constructively addressed in order to improve the implementation process. In this study, we

present examples of provider feedback from the focus groups to illustrate potential design and supportive approaches to address their concerns with implementing the MATCH protocol, and more broadly, EBTs in general. It is our hope that this framework can be applied to a range of provider concerns that arise in the process of implementing EBTs.

METHOD

The current investigation utilized a qualitative interview and inductive coding methodology in order to solicit provider experiences with implementing the MATCH treatment protocol in the context of system-wide reform. The focus group discussions targeted two key aspects of provider experiences implementing the trial's EBT: first, their initial impressions of the treatment and how those impressions developed over the course of the study; and second, their early use of MATCH and how their patterns of use evolved over time. This study was approved by the University of California, Los Angeles Institutional Review Board.

Participants

Participants in the current study were 15 community providers trained in MATCH as part of the Child STEPs Los Angeles clinical trial conducted in three community mental health agencies in Los Angeles. Providers were recruited during an optional study-related training event after completion of the trial. Of the 29 providers who used MATCH in the trial, 15 (51.7%) attended the optional day-long training event and 100% of those attendees agreed to participate in the optional focus group. All respondents identified as primarily child/adolescent providers. Table 1 displays demographic information for all 15 focus group participants.

Data Collection and Focus Group Procedures

The 15 providers were randomly divided into roughly equal groups of participants (eight in group one; seven in group two). The group discussions centered around two primary topics.

The first was providers' initial impressions of MATCH, including the stability of these impressions over the course of the Child STEPs trial. As providers shared their impressions, they were probed about factors influencing the formation and evolution of these attitudes. Group members were also asked about their perceptions of MATCH's effectiveness as well as the basis for their impressions. The second topic focused on providers' use of MATCH, and the stability of their patterns of use over the course of the trial. Providers were probed about factors that influenced the way they used the intervention, both earlier and later in the trial. They were also asked if they planned to use MATCH in the future now that the trial had concluded and, if so, how they planned to do so. As discussion around each topic concluded, the facilitator summarized themes from the group discussion and asked whether these themes fairly captured the group members' experiences. Each group lasted roughly 55 minutes.

Qualitative Coding

Audio recordings of the focus group discussions were transcribed and converted into an electronic database of individual responses. An inductive coding approach rooted in grounded theory (Glazer & Strauss, 1967) and based on "Consensus, Co-occurrence, and Comparison" (Willms et al., 1990) was used to identify themes present in participant feedback. This qualitative coding methodology has been utilized in previous qualitative psychotherapy research (e.g., Palinkas et al., 2013) and allows researchers to account for a priori and emergent themes in the data. We applied this approach through an iterative coding process in which the raw data were reduced to analyzable units, and ongoing discussion among investigators led to consensus on code definitions and the comprehensiveness of the coding scheme. The constant comparison (Glaser, 1965) of conceptualized data generated from participants' raw responses resulted in a comprehensive set of codes, and these codes were then organized into common themes that

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accounted for all subordinate codes. These themes were subsequently labeled and the resulting

thematic structure was reviewed and finalized during meetings with the other co-authors.

RESULTS

Inductive coding revealed five primary themes characterizing the focus group discussion

of providers' experiences using MATCH during the Child STEPs Los Angeles trial: (a)

Consultation, (b) MATCH effectiveness, acceptability, and flexibility, (c) Treatment fit, (d)

Study influences, and (e) Context. These themes are explained in detail below.

Consultation

Provider feedback regarding the impact of consultation on MATCH implementation was

mixed. Many comments suggested that the provision of ongoing consultation was integral in

supporting providers' ability to individualize the treatment to their clients' specific needs. For

instance: "The consultation was crucial not only for support, but to understand some of the

concepts and how to apply them to specific clients who had specific personalities or issues."

Another provider stated, "[My consultant] allowed me the freedom sometimes to deviate I guess

and take more time with the [modules]." Furthermore, providers noted the value of the

infrastructural support that inadvertently stemmed from the consultation process: "If I wouldn't

have had that extra one hour consultation time with just MATCH, I wouldn't have had time to

adapt and process through and plan the sessions." In addition to helping providers manage

adaptation processes, comments also centered on the general utility of receiving feedback when

implementing a new protocol: "[The consultations] were super invaluable. It was very nice to

have a face-to-face or even the phone sometimes, just to kind of check in with someone who

actually knew the material and someone who was fresh with the material versus someone who

was maybe trained eons ago."

However, other providers felt that the consultation process was not supportive and, at times, restricted their ability to optimally respond to their clients' needs. For example, "[The consultant] was kind of harsh sometimes, like drilling me. Like, why aren't you following it this way? And I told you… That way wasn't always helpful." Some study providers reported feeling misperceived by their consultants: "I felt like I was perceived as defiant, and I was really just trying to explain where the disconnect maybe was." Additional input from providers revealed that these discrepancies might have resulted from individual differences in consultants' supervision styles: "Your consultant makes a big difference. We had a change in consultant a year later… I noticed a difference in flexibility and creativity with those modules across the different consultants, so I think that might speak to the experience. Certain consultants were a little more flexible and others consultants were a little more litigious." This may partially explain why some providers felt that, "The consultants always seemed open to prioritize what the client needed," whereas others felt that, "There were times where I felt like I had no say. I was just like just a MATCH person, like a robot kind of. Like I have to do this intervention next."

MATCH Effectiveness, Acceptability, and Flexibility

Providers generally found the MATCH intervention to be effective and straightforward to apply with clients, making comments such as, "I found the interventions very useful. I thought they were organized really well... it was easy to be able to follow where you were going... and prepare the clients from one piece of the module to the next." Providers noted that the MATCH materials were especially helpful in conveying how to apply the content: "Because I feel like so many times you're getting these [EBTs] and this is what you need to do, but how? I like the handouts because it gives you the ability to know how to present it and talk about the situation."

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Several providers endorsed using the MATCH intervention with non-study clients during the trial, as well as sharing materials with colleagues who were not part of the trial.

Although providers in the study agreed on the high quality of the MATCH content, they differed in their perceptions of its flexibility. Most respondents found the intervention to be flexible, making comments such as, "It does have multiple components you can pull from it for different things instead of the ones that are specifically for trauma or specifically for depression. So it's just kind of nice to have multiple things to pull from versus just one, so I use it with most of my kids." However, several providers commented on the difficulties they encountered in flexibly applying MATCH: "The content was great, but the application was challenging sometimes." One particularly salient theme was that providers generally held strong initial expectations of flexibility for MATCH, but for a subset of providers these expectations were not met when they attempted to apply the intervention in the context of the study. For example, "[MATCH] was presented to me in a way that I thought it would be a little more flexible, you know, with the modules and stuff than it turned out to be in the end. And so that was the part that became frustrating." Another provider commented that, "When I started MATCH that's sort of the idea that I thought it would be. Where there are all these interventions that you can pick and choose from. But it turned out, no, you've got to follow this flow chart and check with the consultant if you're going to change anything." Some providers noted that this issue was not specific to MATCH: "I think any [EBT] in real practice, though, is very hard for me. Given the caseload we have to be creative. So, I loved initially to hear how flexible, how creative the materials were in itself. But in actuality... I just don't have that time like in my week, and sometimes I am pulling things on the fly like as I'm walking in the door. Like, what am I going to do today? And so to think of pragmatically how you would go through the modules, it doesn't

just allow for that to adapt it to a different age group or a different developmental [level]." Such comments underscore the centrality of an intervention's built-in flexibility to community providers, particularly in diverse treatment contexts like Los Angeles.

In response to perceived flexibility limitations of the MATCH protocol, study providers described adapting the intervention to meet their clients' needs: "I kept thinking to myself, just the ability to be innovative with it. It was a good way for me to use the materials to stay on track but still be creative and to tailor to that client's strengths or that client's needs. But the material was really helpful in just helping me with the type of treatment plan." Many providers stated that their ability to selectively apply MATCH modules improved over time during the study. For instance, "How I utilize it now… it's like there's all these great interventions and modules but I don't necessarily follow the flow chart… I think that's more helpful to be able to tailor in that sense for a client. Even though this isn't in the depression module or flow chart or whatever, it'll still fit with this anxiety client and be a good skill for them to learn."

Treatment Fit

Although providers noted that MATCH could be flexible in tailoring treatment, many also expressed that the intervention did not always fit well with client needs. For example, some providers felt that the conduct modules within MATCH were not able to meet the needs of clients with ADHD, "who are most of your conduct kids," while others described concerns with the developmental appropriateness of the intervention: "It was written more like if you're 8 years old... but if you're a teenager you're looking at me like... no. That practice, it just didn't go to the needs where they are, to their developmental stage." Additionally, providers felt that MATCH was unable to address emergent client needs: "If the family is going to be homeless and that's the crisis of the week, you're not going to take modules and be like, 'ok.'" Another provider

proposed, "I think more needs to be focused on crisis intervention. There needs to be modules around that and case management." As an additional concern about client fit, a few providers described feeling that the intervention was not culturally relevant: "One-on-one time might not really work with some of our families, like just culturally. I mean, maybe the woman who lives in [a wealthy part of town] could handle one-on-one time when the nanny is taking care of the other kids. But not for the... single mom who's working a lot and you [say], 'you just focus 10 minutes on this child,' and it's just like, 'what?'"

Finally, providers described significant difficulties engaging parents and children in MATCH, some of which stemmed from the inherent complexity of community mental health populations. As an example, "Technically you could apply the steps for problem solving but they're gonna look at you like, 'I don't got time for that,' you know?... So that part of the problem was like a lot of our clients are resistant, even if they sign a form saying they agree – their attitude is resistant. And so there's a lot of engagement that's needed." Parents were highlighted as especially tough to engage: "A lot of the interventions and modules rely on a lot on parent involvement... but a lot of times we're kind of working with what we have."

Regarding the intervention's fit with their own needs and preferences, providers at times reported having difficulty integrating their own expertise with MATCH-prescribed actions. For instance, one provider expressed that, "With the conduct module... my consultant had told me that mostly you should just work with the parent… looking back again, that would've been something that if I didn't have a consultant being really directive of me, I would've provided the client with individual therapy while also working with the parent." Other providers took issue with the different requirements across modules: "I got a lot of parent involvement through the conduct modules. But I didn't feel like there was a lot of parent pull-in through the other areas

like anxiety or depression. So it was really hard to engage the parents during those times to really get them to be on board, understanding what was going on." Related to engagement issues, some providers perceived needing more time to build rapport with clients than the intervention allowed for: "It took me so long to get that parent to like, trust me, because every week when I met with her I came in with like, here's something you're doing or that you need to do and why aren't you doing this, instead of getting to know her and getting to know what's holding her back."

Although the bulk of providers' comments about treatment fit concerned areas of poor fit, several providers noted that having translated materials in Spanish was helpful and that some portions of the intervention were developmentally appropriate (e.g., "A lot of the handouts were... child-friendly").

Study Influences

Providers commented that study procedures negatively impacted their experience with MATCH and the general process of therapy with their clients. Some issues pertained to study design, such as difficulty changing the target problem area and trouble scheduling weekly data collection calls. For example, "Changing from one focus to another – such as changing from anxiety to depression – it seemed like that was a glacial process." Providers expressed concerns about the accuracy of weekly phone call data: "My parent would always report the same thing, and she would base her response after one hour in the entire week of how this child behaved. It was very frustrating." Another provider said, "There was often a really big discrepancy between the feedback from the consult calls that I was hearing and what was charted and what was actually happening in session."

Other study design issues arising in the discussion were the referral process and the short assessment time frames enforced by the study. Several providers felt that their study clients were

not appropriately screened and diagnosed prior to the start of the study: "I think they would come off initially as appropriate for the case but then as I started to work with them and build rapport, then some new information that they had never disclosed before would start to come out so it would be like hmm… Maybe you weren't the best fit for this program, but we're still going to try and meet your needs as best we can." Additionally, the short time frames increased pressure on providers to determine a primary problem area and begin treatment: "MATCH wanted them referred in early on in their treatment. So we didn't have enough time to really determine that [primary problem area]." Another provider commented, "So I had one transition session with the old clinician and the family, and then the next session I was expected to implement MATCH techniques in the session. There was no rapport building time given to build rapport with this family, and this kid was a trauma kid to begin with. So it was really hard."

The impact of study procedures on the provider and the therapy process were salient topics as well. Some providers felt that study procedures placed an additional burden on them. For example, "When you're back to back with clients and paperwork, you need to not be given stuff that would require quite as much prep." The interference of study procedures with the therapy process was also reported by some providers: "In a couple of cases the caller couldn't reach the family, so then I was asked to have the calls done in session which then took up my discussion time." Finally, client resistance (separate from engagement issues with the MATCH protocol) was often cited as a consequence of the study procedures: "One of my clients really expressed how much he hated the phone calls." Several providers suggested the level of training of phone callers might have affected their clients' experiences with the calls: "They're at the bachelor level. So their clinical acumen was perhaps not the greatest."

Context

Providers also raised contextual system-level factors as challenges in the implementation process. They described difficulty implementing MATCH within complex community-based mental health service settings. One individual noted that their agency required concurrent attendance at multiple EBT trainings, which interfered with their ability to learn the MATCH protocol: "My experience in the beginning was, I started getting trained in MATCH at a time when I was being trained in other things. I mean within two-months period, we got other trainings. So… I was a little tired. A little overloaded, just with information. So it was a little bit, um, hard to capture everything." Providers also pointed to the mismatch between what was expected of them according to the MATCH protocol and what was feasible given regulations set by the county and their agencies. For instance, in determining the appropriateness of MATCH for their clients, "The struggle was more I think with the limitations of our agency and how we screen our clients and how much time we're given to really determine what a client actually needs. And that's a program issue and didn't really have much to do with STEPs." Comments also focused on the lack of resources and supports within agencies to optimally execute the MATCH protocol: "We have to see the kids. It's a requirement so you have to see the kid once a month or whatever at the school. But the [MATCH] module's really written for the parent." Relatedly, another provider commented, "I feel like the curriculum sometimes presumes we have a lot of things or resources in place that we don't have." Finally, providers felt that, "The suggestions in consultation weren't realistic given the time that I had available as a practitioner in a community mental health setting. I think that in a study if someone has ample time to prepare for this session and like could spend an hour preparing materials and yadda yadda, it's great you could do amazing things with it."

DISCUSSION

Using qualitative data from focus group discussions, the first aim of the present study was to characterize providers' experiences using MATCH, a modular EBT, in the context of a clinical trial for complex community populations in Los Angeles. We found five primary themes of provider comments: (a) Consultation, (b) MATCH effectiveness, acceptability, and flexibility, (c) Treatment fit, (d) Study influences, and (e) Context. Within the themes distilled from the discussions, providers emphasized the importance of consultation in coloring their experience of implementing the novel treatment. Some providers felt that their consultants supported them in flexibly applying MATCH to their clients, whereas others felt that consultation prioritized strict fidelity to MATCH over their own clinical insights. In addition to consultation, while many providers expressed that MATCH content was useful and effective, a major theme that emerged was the difficulty of applying the intervention to certain client concerns, such as crises, resistance to treatment or struggles with treatment engagement, and developmental differences. Finally, providers drew our attention to burdensome or confusing study procedures as well as a perceived mismatch between MATCH and system/agency resources and requirements (i.e., the Los Angeles treatment context).

The consultation process emerged as a primary theme of the focus group discussions despite the fact that, in contrast to queried topics such as providers' impressions and use of MATCH during the trial, consultation was not a proposed discussion topic. While providers clearly had a variety of positive and negative experiences with consultation, there was consensus that the consultation process held great power to improve or detract from their ability to apply and adapt MATCH to their study clients. As one study provider stated simply, "Your consultant makes a big difference." These results are consistent with previous qualitative research

suggesting that consultants' responsiveness to individual provider and client needs following CBT training for child anxiety was a primary component of effective consultation from the provider point of view (Beidas, Edmunds, Cannuscio, Gallagher, Downey, & Kendall, 2013). Additionally, providers' awareness of the importance of ongoing consultation corroborates recent findings that the amount of consultation post-training predicts greater provider adherence and skill at follow-up (Beidas et al., 2012).

In considering the cases where providers felt misperceived and/or unsupported by their consultants, it is worth considering the contrasting frames of reference at play for community providers versus study consultants. For community providers, it is likely that a usual care or individualized care model (i.e., the personalized application of therapeutic techniques determined to fit the client, whether evidence-based or not) served as their frame of reference when evaluating the MATCH intervention. In other words, within the "usual care mindset," providers may have been accustomed to having unlimited flexibility in their choice of interventions. On the other hand, given that study consultants were post-doctoral level individuals operating within the context of a randomized effectiveness trial, some may have approached the consultation process from an EBT frame of reference – that is, a mindset prioritizing providers' fidelity to structured intervention content. Thus, some consultants' emphasis on adherence to the MATCH protocol during consultation may have been perceived as unsupportive or inflexible by providers who were used to greater freedom. However, as some providers commented that their consultants encouraged them to be creative in adapting MATCH (contributing to their perception of MATCH as flexible), our results suggest that there was considerable variance in the extent to which providers' and consultants' frames of reference opposed one another.

A central goal of modular EBT designs is to package the efficacious elements of EBT into a format that providers can more easily adapt to the needs of the client (Chorpita, Daleiden, & Weisz, 2005). Data from the Child STEPs multisite trial (Weisz et al., 2012) suggests that MATCH sessions involved far more evidence-based content than usual care sessions (83% vs. 8%), while also containing more "other" content (i.e., non-evidence-based content) relative to sessions using any of three standard manualized EBTs (17% vs. 7%). Likewise, MATCH has also demonstrated superior therapist satisfaction scores relative to the other conditions (Chorpita et al., 2014). Taken together, these findings suggest that there may be a "sweet spot" between the efficacy offered by the structure of EBT and the flexibility that community providers value in offering individualized care to their complex caseloads. Although modular designs in and of themselves may represent a step towards finding this "sweet spot" between structure and flexibility, feedback from our focus groups indicates that the consultation process also served to either limit or amplify providers' perception of the flexibility of the MATCH intervention during the STEPs Los Angeles trial. Also, it is apparent that not all consultants were identical in where they landed on this structure/flexibility dimension, and the extent to which that deviated from provider preferences was a factor.

Providers generally commented that MATCH and its materials were effective and easy to use. Furthermore, when queried about change in impressions and use of the intervention over time, study providers felt that using MATCH became easier over time and that they became more comfortable selectively using its modules (as opposed to following the full protocol) with increased experience. According to the Revised Technology Acceptance Model (Wu & Wang, 2005), perceived usefulness, perceived ease of use, and compatibility are central factors influencing the adoption of new technologies. Our qualitative feedback suggests that MATCH

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was perceived positively in terms of perceived usefulness and ease of use, but less so in terms of compatibility with providers' and their clients' needs. In an attempt to address their compatibility concerns, providers' increased willingness to modify MATCH via selective use of modules supports Palinkas and colleagues' (2013) findings that modification of the intervention over time was the norm rather than the exception. However, there remains little research on the extent to which such modifications enhance or detract from the effectiveness of EBTs (Stirman, Miller, Toder, & Calloway, 2013).

The focus group discussion revealed a number of ways that MATCH could be improved to better fit with study clients. Primary among these were the need for content to manage clients' emergent life events, issues related to child and family engagement, and developmental considerations (e.g., the age-appropriateness of MATCH content). Each of these topics could potentially be addressed via design modifications to the MATCH intervention. For example, recent research on emergent life events (ELEs; Chorpita, Korathu-Larson, Knowles, & Guan, 2014) shows that ELEs occur commonly in community mental health populations and often disrupt planned EBT implementation. Provider feedback from the current study underscores the need for a structured framework to guide providers in managing ELEs. Such a design modification would allow EBTs to better fit the complex and often unanticipated needs of families being treated in community mental health settings.

As suggested in previous work by Palinkas and colleagues (2008), provider-researcher interactions were identified as influential to providers' implementation experiences. Providers were generally critical of study procedures associated with the clinical trial, such as weekly phone calls, time frames for assessment and treatment, the referral process, and administrative requirements surrounding clinical decisions such as changing the primary problem area. Study

providers felt that these procedures interfered with the process and quality of services offered, posed an additional burden to them as providers, and potentially overlooked the true gains made in therapy. The negativity of study-related comments seemed largely related to a perceived negative impact on client care, as well as burdensome effects on the providers themselves. Given the abundance of county and agency regulations in place as part of Los Angeles County's PEI initiative, provider sensitivity to additional study-related burdens is understandable. Furthermore, their concerns about conflict between these contextual regulations and proper delivery of MATCH reflect the pressures of local system reform illustrated in previous research on Los Angeles County's practice context (e.g., Southam-Gerow et al., 2014; Reding, Chorpita, Lau, & Innes-Gomberg, 2014). Thus, provider feedback suggests that there are opportunities for system design improvements separate from protocol design improvements (e.g., more preparation time for sessions).

Framework to Address Provider Concerns: Application to Concerns About Consultation

Provider feedback offers a variety of avenues for improving the implementation process for MATCH and other EBTs and, hence, to increase the quality of care delivered in community mental health service settings. As such, all stakeholders serve to benefit from the development of efficient and effective solutions that address the concerns raised by providers. Two promising channels for addressing provider concerns are design modifications to the EBT and supportive strategies to improve provider experiences with the EBT. In line with the second aim for the current study, we consider the theme of consultation to demonstrate this two-channel approach to addressing provider concerns.

Design strategies. A design-centered approach to addressing providers' concerns about the variability of their consultation experience could involve training consultants in a more

structured "consultant curriculum," thereby decreasing the likelihood that some consultants would encourage providers to use MATCH flexibly while others would expect strict adherence to the manual content. In the current trial, these individual differences in consultant styles were not controlled for explicitly – rather, consultants received weekly support from the PI regarding implementation issues. Although the present study lacked manualized guidance for consultants, and such guidance appears to be rare in the world of EBT implementation, a few examples exist of structures designed to promote quality and standardization of consultation. One such example is Multisystemic therapy (MST; Henggeler & Borduin, 1990), which has a manualized consultation protocol (Schoenwald, 1998) and demonstrated that expert consultation was positively associated with therapist adherence and child outcomes (Schoenwald, Sheidow, & Letourneau, 2004). Another example is the development of a supervisor process model that coordinates key supervisory decisions, actions, and knowledge within a decision flowchart (Chorpita & Daleiden, 2014). Within this model, supervisor guides – brief guidelines for how to implement a given supervision practice, based on knowledge distilled from the literature on supervision – are offered as resources for addressing various provider concerns. For example, a lack of provider engagement in supervision can be addressed with supervisor guides on topics such as motivation and preparation of supervisees. Provider feedback from the current study suggests that a similar framework, in which provider concerns about the consultation process are regularly reviewed and addressed, may help alter perceptions such as, "There were times where I felt like I had no say." Furthermore, evidence suggests that a more structured consultation approach (i.e., in the form of a clinical supervision protocol) can positively impact both provider and youth outcomes (Schoenwald, Sheidow, & Chapman, 2009). Although there remain many questions about the types of consultation that best support implementation efforts (e.g., Nadeem,

Gleacher, & Beidas, 2013), results from our study highlight the need for design-oriented strategies to improve providers' consultation experience.

Supportive strategies. A supportive approach to addressing provider concerns about their consultation experience could involve detailing a set of common provider concerns (e.g., being forced to rigidly apply interventions; being perceived as defiant when voicing input) about the supervision process and orienting consultants to them during the consultant training process and ongoing support meetings. This type of orientation to and ongoing focus on provider concerns could prepare consultants to more effectively recognize and flexibly address these concerns when they arise during the supervision process with providers. In their qualitative study of provider consultation experiences, Beidas et al. (2013) found that all three core components of effective consultation nominated by providers were related to perceptions of supportiveness embedded in interpersonal processes: connectedness (the shared experience of learning along with colleagues and the consultant), authenticity (alignment of supervision with relevant, real-world clinical experiences), and responsiveness (help adapting techniques and respect shown for provider needs). Thus, preparing consultants to better support their providers may allow them to more skillfully reconcile provider concerns with the evidence-based interventions indicated by the protocol. In situations when providers' clinical opinions contradict the evidence base, supplying consultants with strategies to manage this conflict in a manner that preserves the interpersonal relationship while retaining the objective of evidence-based care may minimize the risk that providers would feel misperceived. For example, consultants can be trained to develop agreements with their providers to monitor client improvement via the clinical dashboard and, if the provider's desired course of treatment fails to show improvement after an agreed-upon period of time, switch to the appropriate evidence-based strategy. It should be noted that supportive

strategies do not necessitate design changes to the intervention, but they are also not exclusive of design-focused approaches and could in fact compliment such efforts to improve the consultation process.

Table 2 provides additional examples of provider concerns and how they might be addressed via the two channels proposed above. We believe that this approach can prove helpful in addressing a range of provider concerns about EBT implementation, particularly within a modular treatment framework that facilitates the addition of new practice and support content over time. By continually striving to improve the treatments offered based on the emerging evidence base as well as stakeholder feedback, the utility of EBTs can be enhanced as part of a continuous quality improvement process (e.g., Bishop & Dougherty, 2005).

Limitations

The current study has several limitations. First, we examined MATCH implementation experiences through the lens of study providers, who do not represent the entire group of providers and administrators participating in the implementation process. Additionally, our sample included only providers who: a) remained with their agency until the time of data collection, and b) sought additional training in EBTs. Hence, our sample may not have represented the overall population of providers who used MATCH in the Child STEPs Los Angeles Effectiveness Trial.

Next, although the focus groups allowed for the emergence and elaboration of provider experiences (both expected and unexpected) in a dynamic discussion format, there were also drawbacks to this methodology. For example, we were unable to measure or control for group effects on individual feedback, such as opinions not voiced for fear of negative reactions from other group members, the disproportionate influence of certain group members, or group

polarization effects that may have exaggerated the apparent salience of certain topics. Despite these drawbacks of the focus group format, each of the key themes outlined above arose independently and were significant topics of discussion in both groups.

Finally, as with all qualitative research, investigator biases had the potential to influence the coding and interpretation process. We attempted to minimize these potential influences by utilizing three investigators to code the transcripts and consolidate the themes presented.

Conclusions

The current study investigated the experiences of providers in a rapidly changing and multi-EBT implementation environment in Los Angeles, the nation's largest community mental health system. As such, the factors emerging from our qualitative inquiry represent implementation challenges that may generalize to providers in other contexts that mandate EBTs and serve diverse and acute clinical populations.

The themes nominated by providers in this study should be further investigated by researchers via quantitative and mixed methods approaches as potential explanatory variables for provider behavior and attitudes during the EBT implementation process. For example, it may be important to account for consultant effects on provider satisfaction with and attitudes toward EBT, as well as provider perceptions of treatment adaptability. Addressing provider concerns via design, supportive, and other approaches while continuing to solicit their feedback about the implementation process serves to benefit all stakeholders working toward the common goal of providing better mental health services to those in need.

Table 1.

Participant demographic information.

Variable	Mean	SD	N	%
Age	31.87	4.61		
Gender				
Male			1	6.7
Female			14	93.3
Licensed in CA			2	13.3
Degree				
Master's			14	93.3
Doctoral			1	6.7
Ethnicity				
Spanish/Hispanic/Latino			7	46.7
White/Caucasian/European-American			4	27.7
Asian			2	13.3
Black/African-American			1	6.7
Mixed/Other			1	6.7
Primary theoretical orientation				
Cognitive-Behavioral			5	33.3
Eclectic			5	33.3
Family Systems			2	13.3
Humanistic			2	13.3
Psychodynamic			0	0.0
Other			1	6.7
Primary treatment population				
Child/adolescent			15	100.0
Preferred condition				
Modular Manualized Therapy			7	46.7
Usual Standard of Care			1	6.7
No Preference			7	46.7
Time since degree (yrs.)	5.58	2.45		
Avg. burnout (0 "Never" - 4 "All the Time")	1.73	0.59		
Avg. caseload size	14.93	4.91		
Ideal caseload size	13.73	2.02		
Hrs. of supervision per wk.	2.67	0.98		

Table 2.

Hypothetical design and interpersonal strategies for addressing provider concerns with a novel evidence-based treatment.

Provider Concern	Potential Design Strategy	Potential Interpersonal Strategy
1) Experience with treatment impacted by consultation experience	Design structured supervision/consultation guidelines	Psychoeducation and training for consultants on dealing with provider concerns
2) Treatment not flexible to meet client needs	Increase flexibility within treatment design (e.g., ability to choose modules more freely)	Provider training/consultation emphasizing ways that treatment can be flexible, while managing expectations about flexibility relative to usual care
3) Difficulty engaging clients in treatment	Add structured engagement modules to treatment	Consultation focused on problem-solving engagement issues
4) Not enough time to assess client concerns before beginning treatment	Include more time for assessment prior to treatment	Psychoeducation for providers about the most effective time frames for beginning treatment
5) Insufficient resources at agency to support treatment	Design treatment with agency limitations in mind	Provider education to think flexibly about using the resources available

REFERENCES

Aarons, G. A., Fettes, D. L., Flores, L. E., & Sommerfeld, D. H. (2009). Evidence-based practice implementation and staff emotional exhaustion in children's services. *Behavior Research and Therapy, 47*(11), 954–960. doi:10.1016/j.brat.2009.07.006.

Aarons, G. A., & Sommerfeld, D. H. (2012). Leadership, innovation climate, and attitudes toward evidence-based practice during a statewide implementation. *Journal of the American Academy of Child and Adolescent Psychology, 51*(4), 423–431. doi:10.1016/j.jaac.2012.01.018.

Addis, M. E., & Krasnow, A. D. (2000). A national survey of practicing psychologists' attitudes toward psychotherapy treatment manuals. *Journal of Consulting and Clinical Psychology*, *68*(2), 331. doi:10.1037/0022-006X.68.2.331

Beidas, R. S., Edmunds, J. M., Cannuscio, C. C., Gallagher, M., Downey, M. M., & Kendall, P. C. (2013). Therapists' perspectives on the effective elements of consultation following training. *Administration and Policy in Mental Health and Mental Health Services Research*, *40*(6), 507–517. doi:10.1007/s10488-013-0475-7

Beidas, R. S., Edmunds, J. M., Marcus, S. C., & Kendall, P. C. (2012). Training and consultation to promote implementation of an empirically supported treatment: A randomized trial. *Psychiatric Services*, *63*(7), 660-665. doi:10.1176/appi.ps.201100401

Beidas, R. S., & Kendall, P. C. (2010). Training therapists in evidence-based practice: A critical review of studies from a systems-contextual perspective. *Clinical Psychology: Science and Practice, 17*(1), 1-30. doi:10.1111/j.1468-2850.2009.01187.x

Bishop, A., & Dougherty, R. (2005). Implementing CQI at the healthcare provider level. *Behavioral Healthcare Tomorrow*, *14*(1), 38-39.

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Borntrager, C. F., Chorpita, B. F., Higa-McMillan, C., & Weisz, J. R. (2009). Provider attitudes
toward evidence-based practices: Are the concerns with the evidence or with the
manuals? *Psychiatric Services*, *60*(5), 677-681. doi:10.1176/ps.2009.60.5.677

Chorpita, B. F., & Daleiden, E. L. (2014). Structuring the collaboration of science and service in
pursuit of a shared vision. *Journal of Clinical Child & Adolescent Psychology*, *43*(2),
323–338. doi:10.1080/15374416.2013.828297

Chorpita, B. F., Daleiden, E. L., & Weisz, J. R. (2005). Modularity in the design and application
of therapeutic interventions. *Applied and Preventive Psychology, 11*(3), 141-156.
doi:10.1016/j.appsy.2005.05.002

Chorpita, B. F., Korathu-Larson, P., Knowles, L. M., & Guan, K. (2014). Emergent life events
and their impact on service delivery: Should we expect the unexpected? *Professional
Psychology: Research and Practice*, *45*(5), 387. doi:10.1037/a0037746

Chorpita, B. F., Park, A., Tsai, K., Korathu-Larson, P., Higa-McMillan, C. K., Nakamura, B. J.,
... & Krull, J. (2015). Balancing effectiveness with responsiveness: Therapist satisfaction
across different treatment designs in the Child STEPs randomized effectiveness trial.
Journal of consulting and clinical psychology, 83(4), 709. doi:10.1037/a0039301

Chorpita, B. F., & Weisz, J. R. (2005). *Modular approach to therapy for children with anxiety,
depression, or conduct problems*. Honolulu, Hi, and Boston, MA: University of Hawaii at
Manoa and Judge Baker Children's Center, Harvard Medical School.

Chorpita, B.F., & Weisz, J.R. (2009). *Modular Approach to Therapy for Children With Anxiety,
Depression, or Conduct Problems*. Satellite Beach, FL: PracticeWise, LLC.

Chorpita, B. F., Weisz, J. R., Daleiden, E. L., Schoenwald, S. K., Palinkas, L. A., Miranda, J., ...
& Gibbons, R. D. (2013). Long-term outcomes for the Child STEPs randomized

effectiveness trial: A comparison of modular and standard treatment designs with usual care. *Journal of Consulting and Clinical Psychology*, *81*(6), 999. doi:10.1037/a0034200

Edmunds, J. M., Read, K. L., Ringle, V. A., Brodman, D. M., Kendall, P. C., & Beidas, R. S. (2014). Sustaining clinician penetration, attitudes and knowledge in cognitive-behavioral therapy for youth anxiety. *Implementation Science*, *9*(1), 89. doi:10.1186/s13012-014-0089-9

Garland, A.F., Brookman-Frazee, L., Hurlburt, M.S., Accurso, E.C., Zoffness, R.J., Haine-Schlagel, R., & Ganger, W. (2010). Mental health care for children with disruptive behavior problems: A view inside therapists' offices. *Psychiatric Services, 61*, 788-795. doi:10.1176/appi.ps.61.8.788

Glaser, B. G. (1965). The constant comparative method of qualitative analysis. *Social problems*, *12*(4), 436-445. doi:10.2307/798843

Glaser, B., & Strauss, A. (1967). The discovery of grounded theory. *Weidenfield & Nicolson, London*.

Glisson, C., Landsverk, J., Schoenwald, S., Kelleher, K., Hoagwood, K. E., Mayberg, S., & Green, P. (2008). Assessing the organizational social context (OSC) of mental health services: Implications for research and practice. *Administration and Policy in Mental Health and Mental Health Services Research*, *35*(1-2), 98-113. doi:10.1007/s10488-007-0148-5

Henggeler, S. W., & Borduin, C. M. (1990). Family therapy and beyond: A multisystemic approach to treating the behavior problems of children and adolescents. *Brooks/Cole Pub Co*.

Jensen-Doss, A., Cusack, K. J., & de Arellano, M. A. (2008). Workshop-based training in

    trauma-focused CBT: An in-depth analysis of impact on provider practices. *Community*

    Mental Health Journal, 44, 227–244. doi:10.1007/s10597-007-9121-8.

Lim, A., Nakamura, B. J., Higa-McMillan, C. K., Shimabukuro, S., & Slavin, L. (2012). Effects

    of workshop trainings on evidence- based practice attitudes among youth community

    mental health providers. *Behavior Research and Therapy, 50*(6), 397–406.

    doi:10.1016/j.brat.2012.03.008.

Los Angeles County Department of Mental Health (LACDMH) (June 30, 2014). *Countywide*

    Data Report for PEI Programs, Fiscal Year 2013-2014. Retrieved from

    http://file.lacounty.gov/dmh/cms1_220395.pdf

Nadeem, E., Gleacher, A., & Beidas, R. S. (2013). Consultation as an implementation strategy

    for evidence-based practices across multiple contexts: Unpacking the black box.

    Administration and Policy in Mental Health and Mental Health Services Research, *40*(6),

    439–450. doi:10.1007/s10488-013-0502-8

Palinkas, L. A. (2014). Qualitative and mixed methods in mental health services and

    implementation research. *Journal of Clinical Child & Adolescent Psychology*, *43*(6),

    851–861. doi:10.1080/15374416.2014.910791

Palinkas, L. A., Weisz, J. R., Chorpita, B. F., Levine, B., Garland, A. F., Hoagwood, K. E., &

    Landsverk, J. (2013). Continued Use of Evidence-Based Treatments After a Randomized

    Controlled Effectiveness Trial: A Qualitative Study. *Psychiatric Services*, *64*(11), 1110-

    1118. doi:10.1176/appi.ps.004682012

Palinkas, L., Schoenwald, S., Hoagwood, K., Landsverk, J., Chorpita, B., & Weisz, J. (2008). An

ethnographic study of implementation of evidence-based treatments in child mental

health: First steps. *Psychiatric Services*, *59*(7), 738-746. doi:10.1176/ps.2008.59.7.738

Reding, M. E. J., Chorpita, B. F., Lau. A. S., & Innes-Gomberg, D. (2014). Providers' attitudes

toward evidence-based practices: Is it just about providers, or do practices matter, too?

Administration and Policy in Mental Health and Mental Health Services Research, 41,

767–776. doi:10.1007/s10488-013-0525-1

Schoenwald, S. K. (1998). Multisystemic therapy consultation manual. *Charleston, SC: The MST

Institute*.

Schoenwald, S. K., Kelleher, K., & Weisz, J. R. (2008). Building bridges to evidence-based

practice: The MacArthur Foundation child system and treatment enhancement projects

(Child STEPS). *Administration and Policy in Mental Health and Mental Health Services

Research*, *35*(1-2), 66-72. doi:10.1007/s10488-007-0160-9

Schoenwald, S. K., Sheidow, A. J., & Chapman, J. E. (2009). Clinical supervision in treatment

transport: Effects on adherence and outcomes. *Journal of Consulting and Clinical

Psychology*, *77*(3), 410–421. doi:10.1037/a0013788

Schoenwald, S. K., Sheidow, A. J., & Letourneau, E. J. (2004). Toward effective quality

assurance in evidence-based practice: Links between expert consultation, therapist

fidelity, and child outcomes. *Journal of Clinical Child and Adolescent Psychology*, *33*(1),

94-104. doi:10.1207/S15374424JCCP3301_10

Stirman, S. W., Miller, C. J., Toder, K., & Calloway, A. (2013). Development of a framework

and coding system for modifications and adaptations of evidence-based interventions.

Implementation Science, 8(1), 65. doi:10.1186/1748-5908-8-65

Southam-Gerow, M. A., Daleiden, E. L., Chorpita, B. F., Bae, C., Mitchell, C., Faye, M., &
Alba, M. (2014). MAPping Los Angeles County: Taking an evidence-informed model of
mental health care to scale. *Journal of Clinical Child & Adolescent Psychology*, *43*(2),
190-200. doi:10.1080/15374416.2013.833098

Weingardt, K. R. (2004). The role of instructional design and technology in the dissemination of
empirically supported, manual-based therapies. *Clinical Psychology: Science and
Practice*, *11*(3), 313–331. doi:10.1093/clipsy/bph087

Weisz, J. R., Chorpita, B. F., Palinkas, L. A., Schoenwald, S. K., Miranda, J., Bearman, S. K., ...
& Gibbons, R. D. (2012). Testing standard and modular designs for psychotherapy
treating depression, anxiety, and conduct problems in youth: A randomized effectiveness
trial. *Archives of General Psychiatry*, *69*(3), 274.
doi:10.1001/archgenpsychiatry.2011.147

Weisz, J.R., Jensen, A.L., & McLeod, B.D. (2005). Development and dissemination of child and
adolescent psychotherapies: Milestones, methods, and a new deployment-focused model.
In E.D. Hibbs & P.S. Jensen (Eds.), *Psychosocial Treatments for Child and Adolescent
Disorders, Second Edition* (pp. 9-39). Washington, DC: American Psychological Assoc.

Willms, D. G., Best, J. A., Taylor, D. W., Gilbert, J. R., Wilson, D., Lindsay, E. A., & Singer, J.
(1990). A systematic approach for using qualitative methods in primary prevention
research. *Medical Anthropology Quarterly*, *4*(4), 391-409.
doi:10.1525/maq.1990.4.4.02a00020

Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce?: An empirical evaluation of
the revised technology acceptance model. *Information & Management*, *42*(5), 719-729.
doi:10.1016/j.im.2004.07.001