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Cultural Exchange and the Implementation of Evidence-Based Practices

Two Case Studies

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Objective: The dynamics of interactions between evidence-based intervention (EBI) developers and trainers and organizations and providers that deliver the EBI was examined in two case studies, a statewide randomized effectiveness trial of an EBI to reduce child neglect and a randomized trial of EBIs for depression, anxiety, and conduct problems in children and adolescents. **Methods:** Data were collected using ethnographic methods of participant observation and semistructured interviews and analyzed using grounded theory analytic methods. **Results:** Formal and informal interactions between EBI propagators and end users provide access to resources and exchange of global and local knowledge of service delivery. Productive interactions require accessibility, mutual respect, a shared language, and a willingness to engage in negotiation and compromise to resolve differences in demands imposed by organizational culture, the need for EBI fidelity, and client characteristics. **Conclusion:** A cultural exchange characterized by information sharing and behavioral change through a process of negotiation and compromise is central to evidence-based practice in youth serving systems of care.

Keywords: *translational science; evidence-based practice; implementation; social work; mental health; evidence-based interventions*

As with health services in general (Institute of Medicine, 2000), there remains a large gap between interventions shown to be effective in the prevention and treatment of mental health and behavioral problems among children and adolescents and their use in everyday clinical care. Although there are numerous evidence-based interventions (EBIs) for this purpose (Burns, 2003; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998; Webster-Stratton, Reid, & Hammond, 2004; Weisz, Hawley, & Jensen-Doss, 2004), they are not widely used in clinical practice

(Bickman, Lambert, Andrade, & Penaloza, 2000; Chorpita et al., 2002); instead, most of the interventions in practice appear to have little or no empirical evidence of effectiveness (Burns et al., 2004; Leslie, Hurlburt, Landsverk, Barth, & Slymen, 2004). In fact, it has been estimated that 90% of publicly funded child-serving systems do not use EBIs (Hoagwood & Olin, 2002). Many in the field agree that a great deal of research will be needed to identify factors that facilitate or impede EBI implementation in service sectors that cater to children and adolescents, including specialty mental health, schools,

juvenile justice, primary care, and child welfare (Aarons & Palinkas, 2007; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Garland, Kruse, & Aarons, 2003; Glisson, 2002; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Schoenwald & Hoagwood, 2001).

Although many factors influence the implementation of EBIs, a number of researchers have found that interpersonal contacts within and between organizations and communities are important influences on the adoption of new behaviors (Palinkas, Allred, & Landsverk, 2005; Rogers, 2003). Diffusion of Innovation Theory (Rogers, 2003) is based on the concept of diffusion as a process in which an innovation is communicated through certain channels over time among the members of a social system. The channels are typically social networks comprised of peers and opinion leaders (Fuller et al., 2007). Studies by Valente and colleagues (Valente, Chou, & Pentz, 2007; Valente & Davis, 1999; Valente, Hoffman, Rin-Olson, Lichtman, & Johnson, 2003) have found that although external influences played a crucial role in the diffusion of innovations in health services and health promotion efforts, it was usually the interpersonal persuasion of trusted others that finally convinced individuals to actually adopt. However, Rogers (2003) also noted that communication is a process in which participants create and share information with one another in order to reach a mutual understanding through the exchange of information. It is a two-way process rather than a one-way, linear act. Studies by Palinkas and colleagues (Aarons & Palinkas, 2007; Palinkas & Aarons, in press; Palinkas et al., 2005) found that the extent of collaboration between researchers and practitioners is often dependent upon the willingness and ability to exchange information and values through their interactions.

In this article, we describe the dynamics of interactions and exchanges between EBI developers and trainers and organizations and providers that deliver the EBI in two contexts, a statewide randomized effectiveness trial of an EBI to reduce child neglect, and a randomized trial of EBIs for depression, anxiety, and conduct problems in children and adolescents. Our objective was to examine both the process and the outcomes of these interactions with respect to EBI implementation and to identify requirements for interactions that facilitate the implementation of evidence-based practice. We define evidence-based *practice* as the integration of individual clinical expertise with the best available external clinical evidence from systematic research (Sackett, Richardson, Rosenberg, & Haynes, 1997) during phase 2 translation as defined by the NIH Roadmap (Department of Health and Human Services [DHHS], 2007). EBIs, also known as evidence-based *practices*, designed for the purpose

of prevention or treatment, are the product of this integration during phase 1 translation. Consistent with Klein and Sorra (1996) and Rogers (2003), we defined implementation in this study as the gateway or phase of innovation that lies between the decision to adopt the innovation (in this case, to participate in an effectiveness trial of EBIs) and the routine use of the innovation (in this case, sustainability of these EBIs). It is “the transition period during which targeted organizational members ideally become increasingly skillful, consistent, and committed in their use of an innovation” (Klein & Sorra, 1996, p. 1057).

Methods

Design

This study was based on qualitative data collected from two ongoing investigations of the implementation of EBIs targeting youth mental health and well-being, the Organizational Readiness for Innovation Project (Gregory Aarons, PI; also known as “Mixed-Methods Study of a Statewide EBP Implementation”) in Oklahoma, and the Clinic Treatment Project of the MacArthur Foundation’s Child STEPS Research Network (John Weisz, PI, Bruce Chorpita, Co, PI) in Boston, MA, and Honolulu, HI.

Organizational Readiness for Innovation. Oklahoma Children’s Services is a regionalized statewide contracted community-based home-visiting family preservation and reunification service system for child-welfare cases. It

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serves approximately 1,500 new child-welfare referred families annually. In collaboration with investigators at the University of Oklahoma Health Sciences Center (OUHSC; Mark Chaffin, PI), Oklahoma Children's Services conducted an National Institutes of Mental Health (NIMH)-funded randomized effectiveness trial and implemented an EBI, the SafeCare (SC) model (Lutzker, 1990; also known in Oklahoma as the eco-behavioral or EB model), with ongoing technical assistance and training support provided by the Centers for Disease Control Division of Violence Prevention. The effectiveness of the model in reducing out-of-home placements was experimentally tested with the SC model being implemented in a randomized fashion in three of six regions statewide, whereas the other three regions continued to provide customary case-management services as usual. As part of this effort, a mixed method study was conducted to identify factors that impede or facilitate the real-world implementation of an EBI intended to reduce child abuse and neglect, examine the impact of implementation on organizations and staff, and examine the effect of organizational factors on working alliance and client outcomes.

Participants in Wave 1 of data collection in this study were 15 case managers and 2 ongoing consultants (i.e., trainers; 13 women and 4 men) between the ages of 22 and 60 years involved in the implementation of SC and ongoing fidelity monitoring of the intervention. Case manager participants were selected by maximum variation sampling to represent those having the most positive and those having the most negative views of SC based on results of a web-based quantitative survey asking about the perceived value and usefulness of SC. Participants in Wave 2 were 13 executive and program directors (8 women and 5 men) between the ages of 35 and 65 years representing each of the agencies participating in the statewide implementation trial. A sampling strategy was not used because every administrator eligible to participate agreed to do so.

Semistructured interviews were conducted at two different intervals over a 2-year period by an experienced doctoral level medical anthropologist. An interview guide for case managers and trainers was designed to elucidate the experience of being trained and using SC with a focus on identifying barriers and facilitators to implementation. An interview guide was designed for use with administrators to focus on their experience with the statewide trial of SC, the nature of interactions between agencies and OUHSC investigators, experience in using SC and other EBIs, impact of SC on agency and staff, and requirements for implementation and sustainability of SC at the conclusion of the trial. Interview duration was approximately 1 hour. The protocol was

approved by Institutional Review Boards of the University of Southern California and the Rady Children's Hospital, and all participants gave written informed consent.

The Clinic Treatment Project. The Clinic Treatment Project (CTP) focused on children aged 8–13 years who had been referred for treatment of problems involving disruptive conduct, depression, anxiety, or any combination of these. Eleven agencies (5 in Honolulu and 6 in Boston) participated in the project. As part of the study, children were assigned to be treated with the usual treatment procedures in their settings or with selected treatments identified in an earlier scientific review (Weisz, 2004): cognitive-behavioral therapy (CBT) for anxiety, CBT for depression, and behavioral parent training (BPT) for conduct problems. Specific treatment manuals using these three approaches were identified for use in the study. For CBT for anxiety, the specific manualized program was *Coping Cat*, developed by Kendall (1990). For CBT for depression, the specific manualized program was Primary and Secondary Control Enhancement Training (PASCET), developed by Weisz, Thurber, Sweeney, Proffitt, and LeGagnoux (1997). For BPT, the specific manualized program was *Defiant Children: A Clinician's Manual for Assessment and Parent Training*, developed by Barkley (1997). These evidence-based treatments were tested in two forms: standard manual treatment (SMT), using full treatment manuals, in the manner they have been tested in previous research trials; and modular manual treatment (MMT) in which therapists learn all the component practices of the evidence-based treatments but individualize the use of the components for each child, guided by a clinical algorithm (Chorpita, Becker, & Daleiden, 2007; Chorpita, Daleiden, & Weisz, 2005). Therapists who consented to participate were randomly assigned to one of the three conditions: SMT, MMT, or usual clinical care (i.e., treatment as usual). Therapists randomized to SMT or MMT received training in the specific treatment procedures (from trainers who are expert in the treatment), plus weekly case consultation from project supervisors familiar with the protocols to assist the therapists in applying the treatment procedures to youngsters in their caseload.

As part of the CTP, a qualitative study was conducted to identify factors that facilitated or hindered the successful implementation of the SMT and the MMT interventions. Participants in this study were 7 clinic directors, 47 therapists, 4 trainers, and 6 supervisors involved in the implementation of SMT and MMT in Boston MA and Honolulu, HI. Most of the clinicians (80%) had master's degrees; the remainder had

doctorates in clinical psychology. Of the professional disciplines represented, most were trained in social work, followed by clinical psychology, mental health counseling, and marriage and family therapy.

Data collection consisted of participant observation, interviews with study participants, and review of minutes of teleconferences between supervisors, trainers, and CTP investigators. Participant observation by the first author occurred at researcher meetings, attendance at CTP training workshops, visits to study clinics, and social events for project clinicians. Approximately 230 hours of observations between January 2004 and March 2007 provided an opportunity to collect information on the following: (a) comparison of goals and objectives of researchers and therapists, (b) therapist motivations for participating in the CTP; (c) structure and process of researcher/trainer—therapist interactions; and (d) features of the study treatments and of the project clinics' organization that facilitate or impede the training and use of SMT and MMT.

Extended semistructured interviews were conducted by the first author with four clinical supervisors in Boston in September, 2006 and two clinical supervisors in Honolulu in October, 2006. These interviews were conducted with the use of an interview guide that collected information on therapist understanding of the principles and procedures of SMT and MMT, therapist experience in using the EBIs, supervisor experience in supervising and interacting with project therapists to date, indicators of acceptance of the study treatments by therapists, and clinic organization and environment. During two of the training sessions in Boston, brief semistructured individual interviews were also conducted with eight clinicians attending one session and five clinicians attending another. During the CTP social events, brief semistructured interviews were conducted with six clinicians and four clinic directors in Honolulu and four clinicians and three clinic directors in Boston. These interviews were used to collect information on experience in using EBIs to date, initial assessments of usefulness and practicality of SMT and MMT, motivations for participating in the project, and clinic organization and environment. All interviews lasted approximately 1 hour. The protocol was approved by Institutional Review Boards of the University of Southern California, University of Hawaii, and the Judge Baker Children's Center, and all participants gave verbal informed consent.

Data Analysis

All interviews in both studies were digitally recorded and uploaded to digital sound files. Transcriptions were reviewed and checked for accuracy by the first author.

Using a methodology of "Coding Consensus, Co-occurrence, and Comparison" outlined by Willms et al. (1992) and rooted in grounded theory (i.e., theory derived from data and then illustrated by characteristic examples of data; Glaser & Strauss, 1967), all data were analyzed in the following manner. First, all data were reviewed to develop a broad understanding of content as it relates to the project's specific aims and to identify topics of discussion and observation. During this step, short descriptive statements or "memos" were prepared to document initial impressions of topics and themes and their relationships and to define the boundaries of specific codes (i.e., the inclusion and exclusion criteria for assigning a specific code; Miles & Huberman, 1994). Second, material in field notes, interviews, and archival material were coded to condense the data into analyzable units. Segments of text ranging from a phrase to several paragraphs were assigned codes based on a priori (i.e., from the interview guide) or emergent themes (also known as open coding; Strauss & Corbin, 1998). Third, codes were then assigned to describe connections between categories and between categories and subcategories (also known as axial coding; Strauss & Corbin, 1998). The final list of codes or codebook consisted of a list of themes, issues, accounts of behaviors, and opinions that related to individual, organizational, and system characteristics that influenced implementation of the EBIs in each case study. Fourth, based on these codes, the computer program QSR NVivo (Fraser, 2000) was used to generate a series of categories arranged in a treelike structure connecting text segments grouped into separate categories of codes or "nodes" to further the process of axial or pattern coding to examine the association between different a priori and emergent categories. Fifth, by constantly comparing these categories with each other, the different categories were further condensed into broad themes using a format that placed the EBIs within the framework of the individual, organizational, and system characteristics.

Results

Analyses of field notes and interview transcripts revealed five sets of themes relating to the interactions among researchers and trainers and agency administrators and clinicians: interaction types, quality, content, outcomes, and requirements. Each of these themes will be examined in turn below.

Types of Interactions

Both projects involved two types of interactions. The first type was comprised of formal interactions between

EBI propagators (researchers, trainers, and supervisors) and EBI end users (agency directors, clinicians). In Oklahoma, researchers and agency directors interacted almost weekly by telephone or in person during the start-up phase of the project. The purpose of these interactions was to establish guidelines for adherence to contracts awarded to the agency by the Oklahoma Department of Health Services and to clarify issues related to staff training, budget, data collection protocols, and timelines. Eventually, the duration between interactions increased to occasional telephone calls to resolve issues related to the research protocol, budget, or personnel issues, as well as quarterly meetings in Oklahoma City where all agencies were provided with updates as to study progress. In Boston and Honolulu, researchers met regularly with agency directors early on, and then the frequency of meetings was adjusted depending on the nature of the relationship which was very individualized to each organization. For example, meetings were less frequent with some agencies due to schedule conflicts and other priorities. Directors of other organizations were content to meet with researchers over lunch every few months. Regular meetings were scheduled throughout the entire project period for still other agencies.

Formal interactions between EBI propagators and end users also occurred during training and supervision phases of EBI implementation. In Oklahoma, this interaction occurred during workshops designed to instruct Clinical Case Managers (CCMs) in the principles and practice of SC, and then during home visits where trainers would observe the CCM's use of the SC modules and then provide feedback or model the desired application of a particular module. In Boston and Honolulu, workshops were held where clinicians randomized into the two interventions received training from researchers, trainers, and clinical supervisors for each of the three problem areas (anxiety, depression, and conduct problems). Each clinician attended one 2-day workshop for each problem area over a 3- to 6-month period. The first day and a half of each workshop was devoted to the principles and practice of the evidence-based treatment for that specific problem, whereas the final half-day was devoted to implementation issues specific to either SMT or MMT, covered in separate groups. The next phase of training occurred with the clinical supervisors who met with therapists each week to address issues related to the application of each of the evidence-based treatments.

In addition to these formal interactions, CTP researchers, trainers, clinical supervisors, clinic directors, and clinicians interacted with one another at dinners organized and sponsored by the researchers in Boston and Honolulu. Informal interactions also occurred frequently

between clinical supervisors and clinicians. For instance, one CTP supervisor commented that during the hour of supervision, if the clinician did not have an active case or has just taken on a case, conversation extended to topics ranging from baseball to personal matters like caring for ailing parents, pregnancies, or children heading off to college. Conversations during this time also extended to professional issues outside the scope of the study. The extent of these nonproject related discussions varied with CTP supervisors and the extent to which the clinician was making progress in his or her cases. Occasionally, these interactions extended beyond the hourly sessions of clinical supervisions and included meetings for coffee or lunch or organizing potluck picnics. Most of these meetings were initiated by clinicians, but their frequency appeared to be dependent upon the willingness and ability of supervisors to engage in such interactions.

Quality of Interactions

For the most part, members of each of these groups reported interactions between EBI propagators and end users to be positive. Researchers and trainers in both case studies reported agency directors and staff to be cooperative in implementing the protocol and adhering to data collection requirements. In turn, administrators and clinicians reported being excited about participating in a research project, getting additional clinical supervision through their participation in the project, and learning new techniques for working with clients. One of the Oklahoma CCMs commented that her success in using the SC model was due in large part to her trainer who "is really good at explaining things and expanding on things and answering questions. So that made it easy and I liked it."

However, not all interactions were viewed in a positive light. Although most of the CCMs in Oklahoma found the participation of trainers to be helpful in their attempts to apply the SC practices, others found it to be too intrusive and disruptive of the therapeutic alliance between CCM and client family. In the CTP, some of the clinical supervisors reported difficulties engaging with therapists. In one instance, a supervisor described the need to be thoughtful in the way she phrased things around a particular therapist "because she would get so tense and phrase things in a negative way." Another supervisor reported that a therapist had been upset with her and misunderstood what she was doing during the weekly sessions: "It turned out that she had felt misunderstood and had been angry with me."

Content of Interactions

An analysis of the content of interactions between EBI propagators and end users revealed two types of

exchange. The first type was access to resources. By agreeing to participate in these studies, agencies obtained funding for services (in Oklahoma); training for their staff, which they could then use for marketing, recruiting, and quality improvement; and a method for assessing program effectiveness. In turn, investigators obtained access to study participants (therapists and clients) and assistance in evaluating the effectiveness of the EBIs. The second was the exchange of knowledge. Researchers provided therapists with knowledge that was global in the sense that each of the EBIs was based on a well-grounded conceptual framework, supported by evidence gathered from rigorously conducted clinical trials, generalizable to different groups of clients, and offered a way of serving clients that was more systematic, ordered, and detailed than practices currently in use. In the CTP, for instance, clinicians commented on the fact that the manuals helped to “keep them on track” in working with their clients. In Oklahoma, CCMs praised the SC model for “making the job easier because it’s more structured” and for providing information on parenting and “help that is good for everybody,” even for the clinician. In turn, clinicians provided researchers with knowledge that was local, in the sense that it was based on personal experience in meeting the needs of a specific group of clients. As one trainer in Oklahoma observed, CCMs “don’t want to feel that they’re being told to do it this way exactly, every single time, with every single client. Because they know. They’re the ones in the field. They know what their clients need and what and how they can understand it. And so they need to feel empowered by that.” A clinical supervisor in the CTP described this exchange between global and local knowledge in her interaction with one of her therapist trainees

When we supervise them on an individual basis, they sort of say something like ‘Well that’s a fine and dandy plan, but when it comes to a real child, there has to be more flexibility there, and we won’t necessarily do it that way.’ And so, I think that’s when it sort of more comes out what their actual beliefs are about things. It comes with an actual child that they’re working with. Their pre-existing assumptions, or their pre-existing or normal way of treating kids, in the supervision, that’s what we have to try to guide back toward . . . , guide back toward the protocol.

However, propagators and end users exchanged more than knowledge of a global or local approach to clinical practice; they also exchanged the attitudes and opinions that accompanied that knowledge, attitudes, and opinions that revealed differences in values related to clinical practice possessed by either group. Thus, researchers and

trainers in both case studies emphasized the scientific foundation of evidence supporting the EBIs being introduced, while clinicians emphasized the experiential foundation of the evidence supporting their treatment or practice as usual. Propagators emphasized the importance of standardization in practice as a means of improving quality of care, while end users expressed doubts as to the validity of such an approach with clients who have unique clusters of issues needing to be addressed and the potential for loss of control of the therapeutic process by adopting a global approach to care that minimizes the importance of local variation in client need and clinician competence in addressing that need.

Outcomes of Interactions

For the most part, these interactions have produced three perspectives on evidence-based practice implementation. The first perspective is that the process as a whole has been successful. As one agency administrator in Oklahoma asserted, “if this were just us and Child Welfare implementing all of this information and this study or even a new way of doing things, implementing a new model without OU’s (the researchers at OUHSC) involvement, I don’t think it would have been successful at all.” A CCM attributed her success in using SC to the trainer who attended home visits and either modeled the use of the intervention or provided a critique of the CCM’s performance with the client family.

A second outcome of the interaction was resistance to use of a particular EBI. As described by one of the trainers in Oklahoma,

I think that they had some workers there that had been there for a while and had not used EB (SC) from the beginning of their employment. There was resistance to EB to begin with, resistance to using it. They didn’t want to use it. They felt like the traditional services that they had used, certain services prior to that, they had used had worked just fine There was resistance to me coming out and going with them because they felt like they didn’t need someone monitoring them.

However, the most common outcome in both projects was an adapted use of the EBIs that represented the emergence of evidence-based practice. In the case of Oklahoma, this appears to have taken the form of using some SC modules with every family and other modules with all families. All of the CTP supervisors felt that the majority of the therapists would continue to use some of the techniques, but “either they might select one of the protocols and use it, or use it for some of their clients, but not for the majority of them.” One of the therapists in the SMT condition stated that “I would like to use

them again, but not necessarily in the same order. I like some of these pieces a lot, and some of these not so much. I really like the relaxation part. I can use it for all my cases.” This observation supported one of the larger study aims of the CTP, which was to investigate whether altering the design features of the protocols would lead to differential attitudes toward evidence-based practice on the part of the SMT and MMT groups.

Interaction Requirements

A review of the interactions in both case studies revealed four specific themes that appear to reflect requirements for interactions that led to productive exchanges among EBI propagators and end users. The first requirement was accessibility of each group to the other. As one agency administrator in Oklahoma noted,

Not a week goes by that I'm not having some kind of conversation with either [X] or [Y] or [Z]. And it's never a big deal, just checking in to see what's going on. Keeping posted on what's going on here. Having lunch with them, just you know, just kinda trying to kinda stay on top I think there's a lot of business that gets . . . done in a non formal setting. So yeah, it was real important to me that when, if we're gonna be working with [X] and [Y] that I have a good relationship with them.

However, such accessibility requires effort on the part of both groups. According to one of the SC trainers in Oklahoma, “I think the biggest challenge is being available to CCMs when they need you. The new CCMs really need you when they need you. And you're trying to schedule appointments, and you get CCMs that are hard to schedule appointments with and some that aren't. And you have to make yourself realize that ‘Wait a minute, they're doing SC,’ and you need to drop whatever you're doing to make yourself available.” CTP researchers noted variability in the frequency and ease of communications with clinic administrators based on their willingness to adopt innovative practices within clinics, with the result being that certain administrators were less accessible than others.

The second requirement for interaction was a sense of mutual respect. In Oklahoma, for instance, an agency administrator pointed to a specific researcher as a primary factor in successfully implementing the SC intervention in her agency

She came to us very nice and respectful. She provided information whenever we wanted. She said, ‘if you want outcomes data, I'll give you outcomes data. If you want any other information, I will get it for you.’ She made us feel that we were not on our own, that we were doing this together. She really wants us to succeed and

has done whatever she can to make that happen. The fact that she has been to all the training sessions has made a big difference to our staff.

A third requirement for successful interaction was possession or creation of a shared language between EBI propagators and end users. According to one of the CTP clinical supervisors, therapists “have different languages. I try to find their language for the things I'm talking about and kind of nudge it in the right direction. And I think we end up finding we have more commonalities than differences.” This task was echoed by another CTP supervisor

So we have a common language, and that gave us a really better starting point with [one of the clinics], I think, where the common language wasn't there and we had to build one . . . Yeah, so I think the work was made easier by the fact that we had some shared language at least. I think some of the assumptions that we're making about what you can do with that, you know, that was where the learning had to start.

Finally, the willingness of all stakeholders to compromise and accommodate to the needs of the other appears to be a significant requirement for successful implementation. In both projects, EBI propagators made it clear to end users that some adaptations of the EBIs were desirable and perhaps necessary to meet the needs of their clients. During the CTP supervisory sessions, for instance, the role of the supervisor was to tailor the EBIs to the specific case and fit it into the therapist's own framework for working with clients. This willingness appeared to have alleviated end user concern that there would be no flexibility in the use of the EBIs. As one agency administrator in Oklahoma stated, “initially, we were concerned whether we could make this work or not, but she [one of the OUHSC researchers] has gone to great lengths to help us make it work and to keep us from worrying about whether we were doing what we should be doing or what were expected to do.” Such flexibility required a willingness to negotiate and a certain degree of compromise on the part of both EBI propagators and end users. For instance, one of the Oklahoma agency administrators conceded that “even though they [the researchers] have a very strict focus on the research and making sure everything stays, you know, tight with the respect to research, they also want to make sure that it's delivered in a way that is implementable and really useful to the family and, I guess, customer friendly in terms about serving families.” Another administrator credited the propagators of the EB model for being “very realistic. And when we go to them and say ‘You know what? This just doesn't quite fit with our day-to-day practice.’ They go ‘Oh well, that's not that important anyway, you don't

need to do that.' I mean, they've been just really good about that And they . . . adjust the rules as we go to make sure that it's gonna really fit in with reality.'"

However, the limits to this flexibility were not always made clear. For instance, one of the Oklahoma CCMs acknowledged that while the trainers made it clear that they wanted the SC model to be flexible, "to me, what I've seen is there's no clarity at all about how much flexibility there could be. Now when the trainers come in, they say, 'This is the way we want it done.' But they don't say, 'Ok, this part has to be done this way and in this order.'" Thus, some trainers are perceived as being "very loyal to the model," while others clearly state "you can make modifications in it if you need to," which apparently is what many CCMs did.

Perhaps it is because the limits to adaptation are never entirely clear that the exchange between EBI propagators and end users is characterized by a process of debate and compromise. An illustration of this process is found in the case of one clinician as described by his CTP clinical supervisor:

So like one of the people in the study, in this new group, is pretty adamant that nutrition is fundamental to mental health. I guess in a Maslow kind of way it's true. He added a component about nutrition in what he talks to the moms about. And it was sort of funny. They sort of see it as a combination approach. You know, "I leave everything else I do on the side and I do this." And I think that's good. You know, I haven't discouraged him from also talking about nutrition as long as he covers what I want him to cover. That it is in there But what I mean by that is that they have all these clinical skills right, and they have what they believe to be right, their own orientation in what they have been trained in for a long time People just don't want to hear that what they've been doing for 30 years is just not right, you know This idea that we want them to use these skills and protocol, but they bring with them all these skills and knowledge, it's kind of what we always have said to these folks. And so, the nutrition stuff, I don't necessarily advocate that we do that. I am more for reinforcing him for doing what he is doing, rather than the things that are non-harmful that he is also saying. That is how I view it. I want to see him doing more of the things on the evidence-based protocol for that week, and if he is doing all this extra stuff, I don't really mind. Getting him to do anything that I said is a good thing.

Discussion and Applications to Practice

The two case studies reveal variations in the types, quality, outcomes, and requirements of interactions

between EBI propagators and end users. At the center of each of these variations, however, is the translation and transformation of the cognitive (information) and affective (motivation) elements of meaning systems of both groups through a process of cultural exchange, which is a transaction of knowledge, attitudes, and practices that occurs when two individuals or groups of individuals representing diverse cultural systems (ethnic, professional, organizational, national) interact and engage in a process of debate and compromise (Brekke, Ell, & Palinkas, 2007; Palinkas et al., 2005). In both case studies, there was an exchange of resources. Propagators provided funding, a means for measuring program effectiveness and quality control, prestige and potential staff recruitment associated with participation in a research project, and opportunities for valued staff training and clinical supervision. In turn, end users provided access to study participants and assistance in conducting rigorous translational research in real world settings. There was also an exchange of knowledge. Propagators provided a global evidence-based approach to services found to be effective with other populations in other settings, thereby enhancing its generalizability to the target populations of the two projects. Clinicians provided a local knowledge of the specific needs of clients in the research sites as well as experience addressing these needs through long-established treatment strategies. The exchange of knowledge is central to evidence-based practice.

The exchange of global versus local knowledge reflects the challenge as well as the opportunity of implementation of evidence-based practice. The challenge lies in attempting to integrate very different value orientations. For instance, evidence-based practice is often associated with a more positivistic tradition of clinical practice, while the distinctive, individualized practices and perspectives of many of the clinicians in both studies tend to reflect a more postmodernist, social constructivist orientation toward behavior and practice (Robbins, Chatterjee, & Canda, 2006). The perspective of the propagators is oriented primarily toward the desire to advance and apply the science of mental health care, while the perspective of the end users is oriented primarily toward the desire to advance practice through the application of theory and of practices consistent with their prior training and experience. In essence, the challenge faced by both groups is in accommodating to different priorities rooted in two different cultural systems (Palinkas et al., 2005), one academic and one clinical. As stated by one of the CTP supervisors when describing her interaction with one of the clinicians, "I really had to personally put my own world view right next to hers. And I had to be just as willing to have her

ask me about how I see and feel things as I was asking her to be with me.” As illustrated by both case studies, such accommodation requires a certain degree of collaboration, communication, and compromise. This combination was best articulated by one of the agency administrators who described his experience interacting with the OUHSC researchers as follows: “Yeah I think it’s been a real teamwork project. And they take it very seriously; they’re very professional. But they’re also very good at relating to people and communicating, and very, very open to questions, comments and criticisms.”

The results from this study, in addition to those from previous studies of these two projects (Aarons & Palinkas, 2007; Palinkas & Aarons, in press), also suggest that the extent to which evidence-based practice is adopted and implemented within an organization is based on three conditions: (a) the status and skills of a change agent who introduces and advocates for a particular EBI or for evidence-based practice in general; (b) the extent to which a specific EBI or evidence-based practice in general supports or threatens the value hierarchy (Bailey, 1973) of the existing cultural system; and (c) the extent to which that value hierarchy is sustained and supported by the external environment. In the two case studies, an EBI was introduced by university-based researchers, some of whom participated in the development of the protocol. It may be hypothesized that the success of the researchers in both case studies lay in the fact that they placed higher priority on utility and less of a priority on fidelity than some of their more “scientifically minded” academic colleagues. In Oklahoma, a few of the agency administrators made a point of distinguishing the OUHSC researchers engaged in the implementation of SC from other researchers with whom they had had negative experiences. For their part, most of the clinicians in each case study were not necessarily representative of all clinicians because they had agreed to participate in the respective effectiveness trial. In both instances, neither represented a homogeneous or monolithic academic or clinical culture but represented to varying degrees a combination of both cultural systems. Change agents may also be an agency administrator wishing to improve the performance of his or her agency, a legislator wishing to support only programs with proven outcomes, a case manager or clinician respected for his or her ability to communicate and collaborate with other agency staff (Valente & Pumpuang, 2007), or a biological parent or foster caregiver wishing to obtain a specific form of assistance.

In both case studies, the EBI being implemented was consistent with the agency’s goals (e.g., prevention of placement of children in foster care, remission of symptoms of depression, anxiety or conduct problems) but

required additional time and resources that burden existing personnel at all levels within the agency. In some instances, these EBIs conflicted with current patterns of service delivery viewed by staff as the most desirable approach given existing regulatory mandates and funding streams. For instance, some of the CCMs in Oklahoma argued that implementing SC modules constrained them in dealing with more immediate issues like parent substance abuse, mental health problems, financial hardship and imminent eviction from homes, or life-threatening situations. If the costs of adopting an innovation like evidence-based practice or specific EBIs are perceived to outweigh the benefits, “the more ramifying the expected consequences of introducing an item into a system, the more difficult is likely to be its acceptance” (Bailey, 1973, pp. 8). Costs and benefits themselves are influenced by external factors like demands for improved services or the inability of existing programs to meet goals and objectives. A successful change agent in youth serving systems is thus likely to be an individual or group of individuals who possess both the status and skill to persuade other members of the agency that the benefits of the innovation outweigh the costs and are consistent with the existing hierarchy of the system’s values and shared understandings.

The key to the cultural exchange process, however, lies in the dynamics of the interactions between the key stakeholders. Characteristics of collaborative stakeholder interpersonal dynamics that are likely to be associated with the extent of evidence-based practice implementation in youth serving organizations include the following: (a) possession of similar goals (e.g., the well being of the child versus protection of “turf” or academic advancement); (b) a sense of teamwork and shared control in the evidence-based practice implementation (e.g., scheduling, training, monitoring of performance, adaptation to suit the needs of specific groups of clients); (c) perceived reciprocity (i.e., do both get something desirable out of interaction?); and (d) frequency of communication with one another.

The two case studies provide only a glimpse of the cultural exchanges that occur during the process of implementation of EBI and the development of evidence-based practice in youth serving systems of care. However, the results do suggest that such exchanges may be critical to successful implementation as representatives of two different cultural systems, one academic-based and one practice-based, attempt to find common ground in their efforts to meet the needs of children and adolescents and create a new cultural system that incorporates the use of evidence-based practice in some form through collaboration, communication, and compromise. Further research is required to develop means of measuring both the

predictors as well as the outcomes of these exchanges and to identify interventions that may facilitate these exchanges and thus lead to improved clinical care.

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