# **Bryn Mawr College** Scholarship, Research, and Creative Work at Bryn Mawr College

Graduate School of Social Work and Social Research Faculty Research and Scholarship Graduate School of Social Work and Social Research

2013

# Mental health clinicians' experiences of implementing evidence-based treatments.

Byron J. Powell

Carolina Hausmann-Stabile Bryn Mawr College, chausmanns@brynmawr.edu

J. Curtis McMillen

Let us know how access to this document benefits you.

Follow this and additional works at: http://repository.brynmawr.edu/gsswsr pubs



Part of the Social Work Commons

# **Custom Citation**

Powell, B. J., Hausmann-Stabile, C., McMillen, J. C. 2013. Mental health clinicians' experiences of implementing evidence-based treatments. Journal of Evidence-Based Social Work 10.5: 396-409.

This paper is posted at Scholarship, Research, and Creative Work at Bryn Mawr College. http://repository.brynmawr.edu/gsswsr pubs/74

For more information, please contact repository@brynmawr.edu.

*Evid Based Soc Work*. Author manuscript; available in PMC 2014 October 01.

Published in final edited form as:

J Evid Based Soc Work. 2013 October; 10(5): . doi:10.1080/15433714.2012.664062.

# Mental Health Clinicians' Experiences of Implementing Evidence-Based Treatments

# Byron J. Powell,

George Warren Brown School of Social Work, Washington University in St. Louis.

#### Carolina Hausmann-Stabile, and

George Warren Brown School of Social Work, Washington University in St. Louis.

#### J. Curtis McMillen

The School of Social Service Administration, The University of Chicago.

# **Abstract**

Implementation research has tremendous potential to bridge the research-practice gap; however, we know more about barriers to evidence-based care than the factors that contribute to the adoption and sustainability of evidence-based treatments (EBTs). This qualitative study explores the experiences of clinicians (N=11) who were implementing EBTs, highlighting the factors that they perceived to be most critical to successful implementation. The clinicians' narratives reveal many leverage points that can inform administrators, clinical supervisors, and clinicians who wish to implement EBTs, as well as other stakeholders who wish to develop and test strategies for moving EBTs into routine care.

#### **Keywords**

Evidence-Based	Practice; Imp	lementation I	Research; (	Qualitative I	Research	

#### Introduction

Evidence-based treatments (EBTs) are seldom implemented in routine care (Garland, et al., 2010; Institute of Medicine, 2006; Raghavan, Inoue, Ettner, & Hamilton, 2010; Wang, Berglund, & Kessler, 2000; Zima, et al., 2005) despite their promise as a means of improving the quality of mental health services (Kazdin & Whitley, 2006; President's New Freedom Commission on Mental Health, 2003; Weisz, Jensen-Doss, & Hawley, 2006). This has resulted in an increased emphasis on implementation research, which can be defined as "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices" to improve the quality (effectiveness, reliability, safety, appropriateness, equity, efficiency) of service delivery in routine care (Eccles, et al., 2009; Eccles & Mittman, 2006). The National Institutes of Health has made implementation research a priority (National Institute of Mental Health, 2008; Office of Behavioral and Social Science, 2011), and has made substantial investments in this work (National Institutes of Health, 2010). Similarly, the Institute of Medicine has acknowledged the critical role that

implementation research must play in improving the overall quality of healthcare delivery, and has deemed the testing of strategies for dissemination and implementation a top-quartile priority for comparative effectiveness research (Institute of Medicine, 2007, 2009).

Yet, despite these recent investments in the science of implementation, we still know far more about the barriers to evidence-based practice and implementation (Bond, et al., 2001; Cabana, et al., 1999; Grol & Wensing, 2004; Légaré, 2009; Rapp, et al., 2009; Woltmann, et al., 2008) than we do about the factors that contribute to implementation success. While assessing barriers to evidence-based care is an important aspect of the process of implementation (Légaré, 2009), we must move beyond barriers in order to "identify, develop, and refine effective and efficient methods, structures, and strategies to disseminate and implement' effective treatments (National Institutes of Health, 2010). Although many potential implementation strategies have been identified (Cochrane Effective Practice and Organisation of Care Group, 2002; Grol, Wensing, & Eccles, 2005; Powell, et al., 2011; Straus, Tetroe, & Graham, 2009), the evidence supporting their effectiveness is mixed. Thus, there is a tremendous opportunity to solicit stakeholder perspectives in order to find creative, efficient, and robust methods to integrate EBTs into routine care. Qualitative approaches to implementation research have been underutilized as a means of identifying barriers and facilitators to evidence-based care, understanding contextual factors that influence the success of an implementation effort, and generating hypotheses for future empirical work (Berwick, 2008; Institute of Medicine, 2007).

The purpose of this study is to explore mental health clinicians' subjective experiences of implementing EBTs in routine mental health care using semi-structured qualitative interviews. There was an explicit focus on practitioners who were *currently* implementing EBTs in order to ensure our ability to move beyond an assessment of barriers to an examination of the elements of implementation that clinicians found most crucial to their success. Principle research questions included: 1) What are the clinicians' experiences of delivering ESTs in the real-world?; 2) Are there barriers to implementation that are unique (i.e., that have not been well addressed in the literature)?; 3) What are the primary facilitators of implementation?; 4) How do clinicians balance the tension between fidelity and adaptation when implementing ESTs?; and 5) What factors impact a clinician's intent and perceived ability to sustain the use of EBTs over time?

#### **Methods**

#### Sampling and Recruitment

Mental health clinicians that were implementing EBTs at the time of recruitment were eligible to participate. Treatments were determined to be evidence-based if they were manualized and recognized as empirically supported by one of the evidence-based practice clearinghouses, such as SAMSHA's National Repository of Evidence-Based Programs and Practices or the California Evidence-Based Clearinghouse for Child Welfare. Purposive sampling was used to select two agencies in the St. Louis metropolitan area that were known to be implementing EBTs. Clinicians were recruited by email after seeking permission from the respective agency directors and obtaining a signed letter that provided assurance that clinicians' participation in the study would be confidential and would not (positively or negatively) impact their standing at the organization. All potential participants were emailed a copy of the informed consent form along with the invitation to participate.

#### The Sample (Clinicians, Organizations, Evidence-Based Treatments)

A total of 16 invitations were extended to agency-based participants, 11 of which agreed to participate (5/7 from Agency A and 6 of 9 from Agency B). The 11 participants were

masters-level mental health clinicians with a range of clinical experience and exposure to evidence-based treatments. For example, some clinicians had early exposure to research and EBTs (e.g., one participant was exposed to PhD-level research courses, another was involved with Assertive Community Treatment in the early years of its development), while others were far less familiar with evidence-based practice and the empirical literature (e.g., several participants only learned about evidence-based practice when EBTs were introduced in their organizations). The characteristics of the participants are detailed in Table 1.

Agency A serves primarily children, youth, and families while Agency B serves primarily youth and adults. Both organizations could be considered "early adopters" (Rogers, 2003), as they have embraced a number of EBTs and demonstrated a high level of commitment to providing evidence-based psychosocial care.

The participating clinicians utilized a variety of EBTs in child and adult mental health. While some clinicians discussed the implementation of more than one EBT, the majority discussed the implementation of only one or two EBTs. The EBTs represented in this study are listed in Table 2.

#### Interview Procedures

All interviews were conducted in-person in private offices by the first author. Interview sessions began with a description of the research study and the administration of informed consent form. Clinicians were then asked to complete a brief demographic questionnaire that included information about the participant's gender, race, education, training background (i.e., discipline and level), years of experience in the mental health field, and years of experience in their current agency. The clinicians then participated in a semi-structured, qualitative interview that lasted from between 45 and 75 minutes. An interview guide informed by previous theoretical work focused on the implementation of evidence-based practices (Michie et al., 2005) was developed collaboratively with the study team, and reviewed for face-validity by two individuals with expertise in clinical practice and mental health services research. The interview guide included questions regarding the context of practice and the place of EBTs; clinicians' knowledge, skills, and perceived self-efficacy in relation to the EBTs (including their experiences with training and ongoing support); their motivation and rationale for using EBTs; their decisions related to the utilization and adaptation of EBTs; their intent and perceived ability to sustain the EBTs in the long-term; and a "wrap-up" question prompting clinicians to discuss any uncovered aspects of implementation that they believed to be particularly pertinent. The interview guide represented a preliminary framework for the interviews, and evolved to reflect the responses of participants in earlier interviews.

# **Data Analysis**

All interviews were audio-recorded to increase their descriptive validity (Maxwell, 1992), transcribed verbatim, and entered into NVivo 8 for analysis. First, we identified a subsample of transcripts containing narratives of implementation experiences. These transcripts were read several times to gain a sense of the clinicians' experiences, and to identify a preliminary coding scheme. The coding scheme was first identified within transcripts (Chase, 2005), and later confirmed across interviews. Data reduction resulted in the extraction of text-segments that developed narratives representing the clinicians' experiences while implementing EBTs. These texts were then grouped into summaries, and used to identify the portions that best captured their experiences implementing EBTs. Results outlining clinicians' experiences implementing ESTs are presented in relation to: implementation incentives and motivators, unique implementation barriers, implementation

facilitators, fidelity and patterns of adaptation, and their intent and perceived ability to sustain the use of ESTs over time.

## **Ethics Approval**

Ethics approval for all study procedures was obtained from the Human Research Protection Office at Washington University in St. Louis.

#### Results

#### **Incentives**

The incentives to implement EBTs can be categorized at the professional-, organizational-, clinician-, client-, and intervention-levels.

**Professional-level incentives**—At the professional-level, many participants expressed the need for the field to embrace more of an empowerment or recovery model of clinical practice. One clinician/administrator painted a grim picture of the state of the mental health field:

I mean, I think we've done a really, really grand job of teaching the mental health patients that they can't do @#\$ for themselves! As a way of keeping us in business maybe . . . I don't know. But we've done a really good job of that and they don't even believe they can do it, their families don't believe that they can even be helpful, their families don't even believe that they can do it so, you know, we've crippled the two most important resources — the client and their family.

Yet, a sentiment shared by many was that EBTs promote an empowerment or recovery model by holding both the patient and the clinician accountable for continued progress. One participant proclaimed, "There's something loving in letting somebody go hungry for a few days, if that creates the opportunity for them to learn a new trick so that they never go hungry again." These fundamental beliefs about clients' capacity to change and the role of the helping professional seemed to pave the way for the implementation of EBTs.

**Organizational-level incentives**—At the organizational level, there were several incentives mentioned. Financial rewards, such as the receipt of grants and increased referrals, were cited as powerful incentives. The participants also shared anecdotes that suggested organizational benefits such as reduced staff burnout, increased staff retention, increased staff capacity (i.e., staff were equipped with new skills), and increased accountability to funding agencies. Finally, an organizational incentive for implementing EBTs was to enhance the quality of services provided by introducing some standardization of care delivery.

**Clinician-level incentives**—The most frequently cited incentive to adopt and sustain the use of EBTs was clinicians' lived experiences of the treatments' effectiveness. They expressed that the EBTs were working for them. One clinician/supervisor spoke of the positive effect of seeing a client improve as a result of an effective treatment strategy:

"It's really pretty damn thrilling when you see a client that you never, ever thought would get on a bus and now they're taking a bus and going to work on the bus...I mean, that's really what I have sold people on...it's the personal front seat experience of really, really trying, and where they could see that it really works."

Another clinician echoed the importance of first-hand experiences of effectiveness, "They work. I mean, they're effective! PCIT works! I mean, I've just really seen kids shine...you

know, seeing kids who are in a shell really just come out. It's so positive for the parent-child relationship."

In a similar vein, clinicians expressed feeling much more competent in their work after they began to master the EBTs. This was an especially salient incentive for new clinicians, who expressed having a sense of confidence after learning treatment models that were proven to be effective. Developing professional skills that would serve them well throughout their careers was also a strong incentive. One clinician remarked, "I think as a new clinician it kind of helped with my confidence level, too. Learning something new that has been proven to work...if I ever want to go into private practice I'm going to be shouting on the rooftops, "I can do this [EBT], and this [EBT], and this [EBT]!" Thus, there was an acknowledgment that developing competencies in EBTs offers a competitive advantage in the social service job market.

Some clinicians were candid about the reality that their use of EBTs was not entirely voluntary, in that their job required them to adopt the treatment(s). Clearly, the opportunity to remain employed as organizations adopted new treatment modalities was a very real incentive to adopt and sustain the EBTs. However, clinicians also expressed that learning new treatments kept them fresh, engaged, and served as a protection against burnout.

Client-level incentives—A few clinicians noted that some clients were initially reticent to "buy-in" to EBTs; however, they expressed that most clients eventually come to appreciate the treatments. Indeed, several clinicians discussed how their clients' positive reactions to the EBTs were motivating. In particular, they highlighted the fact that clients appreciated that the interventions were structured. The structure gave them a clearer sense of what they could expect throughout the course of treatment, and facilitated their understanding of the aims and rationale for specific treatment components. Similarly, the clear structure offered clients renewed hope that their difficulties and concerns could be effectively addressed in a relatively short period of time.

Intervention-level incentives—The structure that manualized EBTs provide was especially important, particularly when clinicians were treating children who have experienced trauma of various kinds. Rather than being fearful to explore the trauma experience, they noted that the EBT (Trauma-Focused CBT) allowed them to engage the client in an exploration of the trauma in order to move beyond it. In a way, the structure of the EBTs was noted to be their most important characteristic. In fact, many of the clinicians emphasized that they used many of the components of the EBTs prior to adoption; however, they described the structure of the treatment protocols as a means of helping them to utilize the components in a more thoughtful and less haphazard way. Many of the clinicians mentioned that the EBTs were fun and that they enjoyed delivering them. Some even discussed using the techniques (e.g., of Parent-Child Interaction Therapy) with their own children or grandchildren.

#### **Barriers**

The clinicians in this sample discussed a myriad of implementation barriers that they had directly experienced or heard about through their discussions with other clinicians and administrators. These barriers exist at many levels, including the intervention-, client-, clinician-, organizational-, and systemic-levels. A complete listing of barriers cited can be found in Table 3. Most of the cited barriers have been given a great deal of coverage in the literature; however, three barriers that were discussed are somewhat unique and have not been given much attention. First, clinicians discussed the difficulty of implementing multiple EBTs at once, noting the cognitive and emotional burden that it placed on them.

Faced with the prospect of learning multiple ESTs, one clinician expressed her hesitance, "I know personally I feel pretty overwhelmed. There's a lot of work and I'm willing to put forth the time, but...you can't be an expert on everything!" Second, several participants noted the lack of role models (both within and outside of the organization) who were also implementing similar EBTs, which limited their ability to garner technical and emotional support during implementation. Finally, several clinicians mentioned difficulties with clinical decision making and knowing when certain EBTs are appropriate. One clinician noted, "Sometimes it has been hard to figure out when PCIT is not appropriate. There are definite guidelines and I think that we've stretched them for some developmentally delayed clients... Making those decisions is kind of tricky."

#### **Facilitators**

From the clinicians' vantage point, several factors facilitated successful implementation, namely: organizational commitment, adequate financial support, training and ongoing support, and fidelity monitoring.

Organizational commitment—Clinicians brought attention to the importance of organizational "buy-in" or commitment, from the top-levels of the organizations on down. It was particularly important that the leadership of the organization was committed to ensuring adequate resources (staff, materials, and ongoing support) to implement the EBTs with fidelity. Clinicians also mentioned the importance of having a "critical mass" within the organization that was committed to delivering the EBTs. They found this important because it provided adequate peer support for the technical and emotional aspects of treatment delivery and implementation. One supervisor lamented that, in the absence of buy-in from a critical mass, one of his supervisees left the agency, disillusioned after receiving little to no support from her peers as she attempted to be one of the only clinicians to deliver an EBT with fidelity. Furthermore, he noted that commitment from a critical mass goes a long way in ensuring continuity of service delivery, so that the therapeutic messages delivered by teams of clinicians were consistent.

**Funding**—Perhaps it goes without saying that adequate financial support is essential to the successful adoption, implementation, and sustainment of EBTs. Clinicians emphasized this repeatedly, both as a barrier and facilitator of implementation. Clinicians from grant-driven programs were especially cognizant of the importance of ongoing funding, and stressed the role that it plays in fostering the continuity that it takes to build the type of programs that successfully deliver EBTs.

Training and ongoing support—The majority of clinicians emphasized the importance of investing in intensive initial training, whether that takes place within the organization or through a treatment-developer's training. "Piecemeal" training, in which clinicians' training experiences are not coherent or carefully planned, was cited as a significant problem or barrier to implementation. Clinicians were also quick to note that "intensive" initial training is rarely sufficient; indeed, it often serves as a mere introduction to a treatment model. Thus, the overwhelming majority of clinicians emphasized the need for ongoing training (refresher courses and more advanced clinical training in the model) and support through supervision and consultation. Clinicians discussed multiple forms of supervision, touting the importance of both individual and group supervision. Several clinicians depended upon group supervision as a safe place in which they could discuss their successes, failures, and questions about the EBT and the implementation process. One illustration comes from a clinician who communicated how clinical decision making can be improved through group supervision, "Those supervision groups help, because before I make that decision I realize now that I don't have to make it on my own." Many also stressed the importance of having

access to experts (either the treatment developers or individuals with a great deal of experience in delivering the EBT) available for consultation. Finally, clinicians referenced the importance of having ready access to training resources and intervention materials such as videos, treatment manuals, and clinical tip-sheets.

**Fidelity monitoring**—Even when properly supported in the ways cited above, clinicians acknowledged the tendency to drift from the treatment models. Thus, they discussed the importance of ongoing fidelity monitoring, and of returning to the treatment manuals for ongoing study and reflection.

# **Adaptation and Fidelity**

The majority of clinicians asserted their belief that the EBTs they employed did not need to be adapted and that they would be less effective if they were adapted in a substantial way. One clinician remarked, "I believe it was designed like it was because it was going somewhere, so you stick with it and you'll get there with them...I don't think it would be as effective if you went off on a tangent." However, adaptations were made in several scenarios: 1) When the client's profile (mental retardation, homelessness) did not fit the intervention's targeted populations; 2) when the clients could not handle the materials (illiteracy, cognitive impairments); 3) due to structural factors (funding was ending sooner than the time required for the intervention; there were not enough staff to deliver the intervention as recommended); 4) due to contextual factors (adapting treatments for in-home services); or 5) due to training, experience, or level of knowledge/mastery in the model, the intervention's core components were not fully understood *or* were fully understood ("I think as you grow into the model you see that there is a lot of room to be flexible").

Ultimately, the clinicians felt that there was "room to wiggle," and that the EBTs were flexible enough for them to effectively meet their clients' needs. For instance, one clinician discussed adding sessions to address the unique needs of a client with a cognitive impairment. Others mentioned their ability to make the treatment their own by integrating their own personalities and senses of humor. One clinician noted that although EBTs provide a structure to treatment, there is no substitute for the creativity and therapeutic skills that are required to engage a client:

If you strip away all the specifics, it still comes back down to some fundamental principals. Can you develop a relationship with the people you're working with? Can you help them develop some of their own ideas and get them to implement them? Can you motivate them?

Though clinicians did not report conscientious adaptations to the treatment models, they did acknowledge their tendency to drift from fidelity (as previously discussed).

#### Sustainability

All of the clinicians interviewed mentioned their desire to sustain the EBTs in some form, though one clinician mentioned that she would probably implement the EBT with less fidelity if she were in private practice or another setting in which fidelity was not valued as highly. A salient temporal or sequential component to sustainability was evident in the clinicians' responses. Initially, they emphasized the indispensability of organizational "buyin," intensive training, and ongoing support (supervision, consultation, booster training): "I think when things are new it really takes a high level of support, I really do." This initial investment in implementation seemed to lead to the internalization of the intervention components – that is to say, they became a part of the clinicians' therapeutic repertoire. A clinician who works primarily with children and families describes this process:

Yeah, it really does become a part of you...I believe in the model so much I use it myself, so it does become a part of who you are. I think that's important. I think it's very hard to take on something that you don't really believe works. It would show. If you talk to the people here, you can tell because we have some people that are PCIT [Parent-Child Interaction Therapy] to the heart. They breathe it.

After learning and becoming comfortable with the intervention components, clinicians reported having difficulty imagining not using the EBTs. One clinician exclaimed, "I don't know how I wouldn't do it anymore, because once its there its there." Their lived experiences of the effectiveness of the EBTs reinforced the continued use of the treatments, and ultimately would seem to facilitate their sustained use. Yet, the clinicians' enthusiasm for sustaining the use of EBTs did not approach naïveté. They acknowledged the importance of ongoing support in the way of continued training, supervision, and consultation, and admitted that it would be difficult to sustain the use of these practices if they were isolated in private-practice or an organization that was less supportive of EBTs. Again, they noted the importance of some sort of external validation or fidelity monitoring to ensure that they did not succumb to therapeutic drift.

#### **Discussion**

This study explores the experiences of clinicians who are actively implementing EBTs in their routine practice. Their stories can inform administrators and researchers who are formulating implementation plans, as well as clinical supervisors and clinicians who are considering the adoption of EBTs. The participants (and agencies) in this study demonstrate that EBTs can be successfully integrated in routine care despite the many challenges and barriers to implementation. Indeed, their narratives can inform the development and testing of implementation strategies by specifying opportunities for intervention that have proven to be important in the "real world." Our discussion focuses on some of the elements of both the EBTs and the implementation processes that can be leveraged to increase the chances of implementation success.

# **Incentives to Implement EBTs**

Clinicians discussed incentives and motivators to implement EBTs at multiple levels. Perhaps the most overwhelming motivator to implement and sustained EBTs was the clinicians' lived experiences of their effectiveness. Rarely did clinicians mention the strength of the empirical evidence as a primary motivator, which is consistent with evidence demonstrating that case studies were superior to research reviews in interesting clinicians in training focused on specific EBTs (Stewart & Chambless, 2010). Thus, implementation plans that integrate case studies, video vignettes, role-plays, and other anecdotal case information may be more effective than imploring clinicians to scrutinize the empirical literature. Furthermore, this underscores the importance of the "trialability" of an EBT (Rogers, 2003), as it must be easy to implement, and reject, if it fails (Bond, Drake, & Becker, 2010).

Several clinicians also noted that EBTs were more consistent with their professional commitment to empowering clients. Certainly, the congruence between the EBTs and the clinicians' professional values facilitated their use. Rather than being seen as rigid and mechanistic treatment emanating from the ivory tower, they were viewed as an empathetic way of holding both clinicians and clients accountable to their shared goal of empowerment and recovery.

Another major incentive for clinicians to learn and implement EBTs was the renewed sense of confidence and competence that they attained as a result. They seemed to be aware that

they were investing in themselves and in their career, noting that their skills would be sought after on the job market. The notion that EBT adoption carries a competitive advantage has been acknowledged from the perspective of agency directors (Proctor, et al., 2007); however, it seems that appealing to the self-interests of clinicians and documenting the professional gains they may incur from learning and adopting EBTs may be a promising implementation strategy. Similarly, administrators would be wise to make an effort to publicly recognize the efforts of clinicians to learn and implement new treatment approaches.

Finally, clinicians noted that their use of EBTs kept them fresh, engaged, and less prone to burnout. This is clearly a benefit to both clinicians and organizations given the high rates of turnover and its detrimental effect on implementation success (Woltmann et al., 2008). In fact, research by Aarons and colleagues (2009) demonstrated empirically that implementing EBTs along with routine fidelity monitoring (framed as supportive consultation) actually had a protective effect in terms of staff retention rates. Though implementing EBTs is ultimately more difficult, time consuming, and expensive than usual care, it may ultimately pay dividends in the form of improved patient outcomes and a workforce that is more engaged, stable, and competent.

# **Barriers to Implementing EBTs**

Many of the implementation barriers cited by clinicians have been well documented in the literature, including lack of time, inadequate resources, and lack of knowledge (Bond, et al., 2001; Cabana, et al., 1999; Grol & Wensing, 2004; Légaré, 2009; Rapp, et al., 2009; Woltmann, et al., 2008). The barriers discussed (and listed in Table 3) can be very useful to consider, as they represent avenues for intervention (i.e., strategies can be targeted to overcome them). However, a few of the barriers mentioned are particularly deserving of further research and attention in the literature. First, clinicians discussed the difficulty of implementing multiple EBTs at once, noting the cognitive and emotional burden that it placed on them. Indeed, it will be important for the fields of mental health and implementation science to begin to consider how organizations can effectively build evidence-based programs comprised of multiple EBTs. One organization represented in this study relied upon different clinicians to be trained in specific EBTs, attempting to spread the training burden while ensuring that their clients would receive the best available care. There may also be opportunities for organizations to collaborate across networks in order to share training costs or to create integrated networks of clinicians who are equipped to implement a myriad of EBTs in response to client needs.

Second, several participants noted the lack of role models (both within and outside of the organization) who were also implementing similar EBTs. This made it more difficult to garner the technical and emotional support that implementation processes require. Implementation strategies such as the identification or formation of learning collaboratives (Markiewicz, Ebert, Ling, Amaya-Jackson, & Kisiel, 2006) and other supportive structures may be important ways of mitigating the challenges posed by a lack of peer and organizational support for implementation.

Finally, several clinicians mentioned difficulties with clinical decision making and knowing when certain EBTs should and should not be implemented. This suggests that clinicians may benefit from clinical decision tools in addition to ongoing training, supervision, and consultation.

#### **Facilitators of EBT Implementation**

The main facilitators of implementation for this sample of clinicians were ongoing training, supervision, consultation, and fidelity monitoring (all of which were dependent on ongoing financial support). Several clinicians noted the inadequacy of their initial training in the EBTs, and discussed the importance of booster sessions as well as access to manuals and other educational resources (in both paper and electronic formats). Similarly, they noted the importance of access to treatment developers or other experts in the EBTs. Such consultation can obviously be costly; thus, it will be important to think of efficient and costeffective ways of ensuring adequate levels of consultation (e.g., web-based consultation and other resource sharing arrangements). Several clinicians noted the importance of group supervision or implementation teams that gathered to discuss failures, frustrations, doubts, and successes related to the implementation of a particular EBT (e.g., Dickinson, Edmundson, & Tomlin, 2006; Rapp et al., 2008). These meetings were viewed as a safe place where one could find encouragement and advice without fearing any sort of professional retribution for noting struggles and failures. Indeed, psychological safety, or the shared perception that a team or organization is safe for interpersonal risk taking, has been noted to be an essential component of organizational learning and change (A. Edmondson, 1999; A. C. Edmondson, Bohmer, & Pisano, 2001). Thus, administrators and other implementation stakeholders should take tangible steps toward achieving psychologically safe work environments. Ultimately, the clinicians' general desire for multiple, varied training opportunities and resources is fairly consistent with the literature on the effectiveness of training approaches. Trainings that are more dynamic and involve multiple components are more consistently effective than more passive approaches (Beidas & Kendall, 2010; Herschell, Kolko, Baumann, & Davis, 2010).

# **Adaptation and Fidelity**

Surprisingly, clinicians did not report adapting the EBT models very often. They felt that the EBTs were flexible enough for them to integrate their own personalities and therapeutic styles in order to engage their clients and treat them effectively. This runs contrary to the notion that EBTs are seen as overly rigid or constricting. Adaptations that were reported seemed to be very appropriate, and largely served to increase the fit between the treatment and the client. This finding may seem to contradict the finding that clinicians acknowledged their tendency to drift from fidelity. In this context, adaptations are intentional changes to the treatment model in order to increase their appropriateness or feasibility for a given population, whereas therapeutic drift can be seen as an unintentional process by which one gradually begins to stray from the treatment protocol. Ultimately, the clinicians in this sample maintained that the EBTs did not need to be adapted very often, but acknowledged the difficulty of maintaining strict adherence to the treatment protocols in the absence of supervision, consultation, and routine fidelity monitoring. It will be important for the field to develop practical methods for assessing fidelity in order to ensure that EBTs are delivered appropriately and to examine the effects of planned adaptations.

The entire sample of clinicians reported their intent to sustain the EBTs (in some form). They noted the importance of early investments (training, supervision, consultation, and fidelity monitoring), but ultimately spoke as if the EBTs had become internalized, becoming not only a part of what they do, but who they are as professionals. Some clinicians noted using the therapeutic skills at home. In short, they were "sold" on the EBTs, and could not see themselves abandoning the core principles. Furthermore, the positive experiences they have had with EBTs seemed to build further interest in learning different EBT models. These reports are encouraging, as they suggest that initial investments in training and supporting clinicians may result in increased openness to and capacity for implementing EBTs. Nevertheless, they acknowledged the importance of ongoing support (training,

supervision, and financial), and several clinicians admitted that it would be difficult to continue providing evidence-based care without substantial support.

#### Limitations

This study is limited in several ways, as it involves a small sample size drawn from a limited number of organizations in one Midwestern city. It provides descriptive results based upon the narratives of clinicians, and does not provide firm evidence of their fidelity to treatment models or their effectiveness in attaining clinical outcomes. Additionally, the clinicians in this study implemented a number of EBTs, the characteristics of which varied significantly. Certainly, the characteristics of an intervention can often play an immense role in the success or failure of an implementation effort.

#### Conclusion

This study underscores the complexity of implementation processes, with barriers to evidence-based care emerging at all levels of the implementation context. Though the literature is replete with accounts of implementation barriers, this study provides a number of leverage points for implementation that serve as bright spots for those imagining more effective implementation efforts. It highlights incentives and facilitators to implementation, and presents hopeful narratives about the viability of implementing and sustaining effective treatments. Hopefully, it can serve to inform those wishing to develop and test cost-effective and efficient strategies to move EBTs into routine care, so that organizations and clinicians will have adequate levels of support to improve the quality of mental health services.

# Acknowledgments

This work was supported in part by the Clinical Research Training Center (TL1 RR024995) and the Dissemination and Implementation Research Core of the Institute of Clinical and Translational Sciences (UL1 RR024992), a Ruth L. Kirschstein National Research Service Award (T32 MH19960) from the National Institute of Mental Health (NIMH), and the NIMH-funded Center for Mental Health Services Research (P30 MH068579) at Washington University in St. Louis.

#### References

- Aarons GA, Sommerfeld D, Hecht DB, Silovsky JF, Chaffin MJ. The impact of evidence-based practice implementation and fidelity monitoring on staff turnover: Evidence for a protective effect. Journal of Consulting and Clinical Psychology. 2009; 77(2):270–280. [PubMed: 19309186]
- Beidas RS, Kendall PC. Training therapists in evidence-based practice: A critical review of studies from a systems-contextual perspective. Clinical Psychology: Science and Practice. 2010; 17(1):1–30. [PubMed: 20877441]
- Berwick DM. The science of improvement. JAMA. 2008; 299(10):1182-1184. [PubMed: 18334694]
- Bond GR, Becker DR, Drake RE, Rapp CA, Meisler N, Lehman AF, et al. Implementing supported employment as an evidence-based practice. Psychiatric Services. 2001; 52(3):313–322. [PubMed: 11239097]
- Bond GR, Drake R, Becker D. Beyond evidence-based practice: Nine ideal features of a mental health intervention. Research on Social Work Practice. 2010; 20(5):493–501. doi: 10.1177/1049731509358085.
- Cabana MD, Rand CS, Powe NR, Wu AW, Wilson MH, Abboud P-AC, et al. Why don't physicians follow clinical practice guidelines? JAMA. 1999; 282(15):1458–1465. [PubMed: 10535437]
- Chase, SE. Narrative inquiry: Multiple lenses, approaches, voices.. In: Denzin, NK.; Lincoln, YS., editors. The Sage handbook of qualitative research. Sage Publications; Thousand Oaks, CA: 2005. p. 651-679.
- Cochrane Effective Practice and Organisation of Care Group. Data Collection Checklist. 2002:1–30.

Dickinson DM, Edmundson E, Tomlin K. Implementing motivational interviewing: Lessons from clinical experiences. Journal of Teaching in the Addictions. 2006; 5(2):39–57. doi: 10.1300/J188v05n02\_04.

- Eccles MP, Armstrong D, Baker R, Cleary K, Davies H, Davies S, et al. An implementation research agenda. Implementation Science. 2009; 4(18):1–7. doi: 10.1186/1748-5908-4-18. [PubMed: 19123945]
- Eccles MP, Mittman BS. Welcome to Implementation Science. Implementation Science. 2006; 1(1) doi: 10.1186/1748-5908-1-1.
- Edmondson A. Psychological safety and learning behavior in work teams. Administrative Science Quarterly. 1999; 44(2):350–383.
- Edmondson AC, Bohmer RM, Pisano GP. Disrupted routines: Team learning and new technology implementation in hospitals. Administrative Science Quarterly. 2001; 46(4):685–716.
- Garland AF, Brookman-Frazee L, Hurlburt MS, Accurso EC, Zoffness RJ, Haine-Schlagel R, et al. Mental health care for children with disruptive behavior problems: A view inside therapists' offices. Psychiatric Services. 2010; 61(8):788–795. [PubMed: 20675837]
- Grol R, Wensing M. What drives change? Barriers to and incentives for achieving evidence-based practice. Medical Journal of Australia. 2004; 180:S57–S60. [PubMed: 15012583]
- Grol, R.; Wensing, M.; Eccles, M., editors. Improving patient care: The implementation of change in clinical practice. Elsevier; Edinburgh: 2005.
- Herschell AD, Kolko DJ, Baumann BL, Davis AC. The role of therapist training in the implementation of psychosocial treatments: A review and critique with recommendations. Clinical Psychology Review. 2010; 30:448–466. [PubMed: 20304542]
- Institute of Medicine. Improving the quality of health care for mental and substance-use conditions. National Academy Press; Washington, DC: 2006.
- Institute of Medicine. The state of quality improvement and implementation research: Workshop summary. The National Academies Press; Washington, DC: 2007.
- Institute of Medicine. Initial national priorities for comparative effectiveness research. The National Academies Press; Washington, DC: 2009.
- Kazdin AE, Whitley MK. Comorbidity, case complexity, and effects of evidence-based treatment for children referred for disruptive behavior. Journal of Consulting and Clinical Psychology. 2006; 74(3):455–467. [PubMed: 16822103]
- Légaré, F. Assessing barriers and facilitators to knowledge use.. In: Straus, S.; Tetroe, J.; Graham, ID., editors. Knowledge translation in health care: Moving from evidence to practice. Wiley-Blackwell; Hoboken, NJ: 2009. p. 83-93.
- Markiewicz, J.; Ebert, L.; Ling, D.; Amaya-Jackson, L.; Kisiel, C. Learning collaborative toolkit. National Center for Child Traumatic Stress; Los Angeles, CA and Durham, NC: 2006.
- Maxwell JA. Understanding and validity in qualitative research. Harvard Educational Review. 1992; 62(3):279–300.
- Michie S, Johnston M, Abraham C, Lawton R, Parker D, Walker A. Making psychological theory useful for implementing evidence based practice: A consensus approach. Quality and Safety in Health Care. 2005; 14:26–33. [PubMed: 15692000]
- National Institute of Mental Health. National Institute of Mental Health strategic plan. National Institute of Mental Health; Bethesda, Maryland: 2008.
- National Institutes of Health. Dissemination and implementation research in health. 2010. from http://grants.nih.gov/grants/guide/pa-files/PAR-10-038.html
- Office of Behavioral and Social Science. 4th annual NIH conference on the science of dissemination and implementation: Policy and practice. 2011. from http://conferences.thehillgroup.com/obssr/DI2011/index.html
- Powell, BJ.; McMillen, JC.; Proctor, EK.; Carpenter, CR.; Griffey, RT.; Bunger, AC., et al. A compilation of discrete implementation strategies; Paper presented at the 4th Annual NIH Conference on the Science of Dissemination and Implementation; Bethesda, Maryland. 2011.
- President's New Freedom Commission on Mental Health. Achieving the Promise: Transforming Mental Health Care in America: Final report. Department of Health and Human Services; Rockville, MD: 2003.

Proctor EK, Knudsen KJ, Fedoravicius N, Hovmand P, Rosen A, Perron B. Implementation of evidence-based practice in behavioral health: Agency director perspectives. Adm Policy Ment Health. 2007; 34:479–488. [PubMed: 17636378]

- Raghavan R, Inoue M, Ettner SL, Hamilton BH. A preliminary analysis of the receipt of mental health services consistent with national standards among children in the child welfare system. American Journal of Public Health. 2010; 100(4):742–749. [PubMed: 19608950]
- Rapp CA, Etzel-Wise D, Marty D, Coffman M, Carlson L, Asher D, et al. Evidence-based practice implementation strategies: Results from a qualitative study. Community Mental Health Journal. 2008; 44:213–224. doi: 10.1007/s10597-007-9109-4. [PubMed: 17973191]
- Rapp CA, Etzel-Wise D, Marty D, Coffman M, Carlson L, Asher D, et al. Barriers to evidence-based practice implementation: Results of a qualitative study. Community Mental Health Journal. 2009 doi: 10.1007/s10597-009-9238-z.
- Rogers, EM. Diffusion of Innovations. 5th ed.. Free Press; New York: 2003.
- Stewart RE, Chambless DL. Interesting practitioners in training in empirically supported treatments: Research reviews versus case studies. Journal of Clinical Psychology. 2010; 66(1):73–95. [PubMed: 19899142]
- Straus, S.; Tetroe, J.; Graham, ID. Knowledge translation in health care: Moving from evidence to practice. Wiley-Blackwell; Hoboken, NJ: 2009.
- Wang PS, Berglund P, Kessler RC. Recent care of common mental disorders in the United States. J Gen Intern Med. 2000; 15(5):284–292. doi: 10.1046/j.1525-1497.2000.9908044.x. [PubMed: 10840263]
- Weisz JR, Jensen-Doss A, Hawley KM. Evidence-based youth psychotherapies versus usual clinical care: A meta-analysis of direct comparisons. American Psychologist. 2006; 61(7):671–689. [PubMed: 17032068]
- Woltmann EM, Whitley R, McHugo GJ, Brunette M, Torrey WC, Coots L, et al. The Role of staff turnover in the implementation of evidence-based practices in mental health care. Psychiatric Services. 2008; 59(7):732–737. [PubMed: 18586989]
- Zima BT, Hurlburt MS, Knapp P, Ladd H, Tang L, Duan N, et al. Quality of publicly-funded outpatient specialty mental health care for common childhood psychiatric disorders in California. Journal of the American Academy of Child and Adolescent Psychiatry. 2005; 44(2):130–144. [PubMed: 15689726]

Table 1

# Characteristics of participants (N = 11)

	M or n	SD or %
Age	43	11
Female	7	63.64
Race		
African American	3	27.27
White, Caucasian	8	72.73
Education (Masters Degree)	11	100
Discipline		
Social Work	6	54.55
Psychology or Counseling	5	45.45
Years of Experience	14.86	8.96
Years at Current Agency	9.26	5.72

#### Table 2

# Evidence-based treatments implemented

Assertive Community Treatment (ACT)

Community Reinforcement Approach (CRA)

Critical Time Intervention (CTI)

Illness Management and Recovery (IMR)

Motivational Interviewing (MI)

Multi-Systemic Therapy (MST)

Parent-Child Interaction Therapy (PCIT)

Trauma Focused Cognitive Behavioral Therapy (TF-CBT)

#### Table 3

#### Implementation barriers and challenges identified by participants

<b>-</b>	-	
Intervention	-l evel	l Karrier:

- Proprietary nature of EBTs (fosters reliance on treatment developers)
- Poor intervention-client fit
- · Tensions between flexibility/adaptation and fidelity
- Less convenient and more difficult than practice as usual
- Rigidity of the treatment models (Resistance to adherence)
- · Difficulty with research instruments/assessments

#### Client-Level Barriers

- Drop-out, lack of buy-in or participation
- · Cultural barriers

#### Clinician-Level Barriers

- Clash between clinicians' training and expectations of EBT
- · Clinicians' reluctance to seek out research findings
- · Clinicians' resistance to manualized treatments
- Distrust of "evidence"
- · Theoretical diversity
- · Lack of knowledge/mastery
- Difficult decisions regarding the appropriateness of EBTs
- · Competing demands
- Lack of time/poor time management
- Overwhelmed by learning multiple EBTs at once
- Lack of personal financial incentives
- Entrenched behavior patterns
- Failure to embrace a continuous growth/learning perspective

#### Organizational-Level Barriers

- · Inadequate infrastructure and buy-in from top administrators
- · Difficulties with coordination of care
- Interpersonal conflict
- · Lack of "buy-in" from a critical mass
- Financial (no money for training/consultation, staff, material resources; services not directly reimbursable)
- · Lack of ongoing support
- Lack of adequate oversight/supervision
- · Insufficiency of initial training

#### System-Level Barriers

- Few role models (peer agencies who are also delivering the EBT)
- Different values and priorities of juvenile courts, probation officers, schools, etc.
- · Poor communication between university and applied settings
- Perverse incentives (e.g., financial incentives of keeping clients on the caseload for long periods of time)
- Non-recovery-based model of care
- Paperwork/administrative burdens