Chapter Two

Issues in Implementing Evidence-based Practice

The Top Five Strategies to Enable the Use of Evidence-Based Programs: Results from the Research Conference

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Introduction

Evidence-based programs and practices are being emphasized as answers to long-standing criticisms of variable, often ineffective, and sometimes harmful practices in human services (Institute of Medicine, 2002). The field is searching for better ways of implementing them with fidelity and good outcome (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). At the 17th Annual Research and Training Center (RTC) conference (March 2004), participants were informally interviewed to gain insight into reasons *not* to adopt evidence-based practices and programs. The top five reasons were:

1. Research base is not convincing
2. Evidence-based programs are difficult to implement
3. Evidence-based programs require too much change
4. Evidence-based programs are incomplete given the problems we face
5. Infrastructure for implementation does not exist or is not supported

The purpose of the survey reported here was to obtain information on some of the reasons *for* adopting evidence-based practices and programs.

Methods

At the poster session sponsored by the 18th Annual RTC Conference (March, 2005), the authors developed an interactive presentation on *The Top Five Strategies to Enable the Use of Evidence-Based Programs*, in which the authors interviewed conference attendees who passed by the poster location. RTC Conference attendees who voluntarily participated in this interactive presentation were asked if they were currently involved in using an evidence-based program. If the participant replied in the affirmative, the authors asked what their experience had been on the front end when the evidence-based program was being considered and just starting to be implemented. If the participant replied in the negative (not using an evidence-based practice), the authors then asked them about the reasons they might have for considering using an evidence-based program. Participants were then asked if they would like to contribute their comments to the authors' list of strategies to enable the use of evidence-based programs. Participant's comments were then placed on the poster, where other participants and conference attendees could see their comments.

Results

The authors categorized the participant's comments to arrive at the top five strategies to enable the use of evidence-based programs. The reasons for using evidence-based programs (with a few comments from participants) are briefly summarized below.

1. Enhance effectiveness of interventions
   - Change what we are doing to be more effective
   - Get past fragmentation
   - Produce good outcomes (get rid of "flim-flammers")
2. Improve provider organizations
   - Training and ongoing supervision
   - Mechanisms to maintain fidelity
   - Have the evidence-based program drive the organizational structure

3. Availability of funding for evidence-based practices and programs
   - Funding available for evidence-based practices
   - Most evidence-based practices and programs are affordable
   - Promote policies that support funding for implementation of evidence-based practices and programs
4. Adaptability of evidence-based practices and programs
   - Allow different cultures to modify evidence-based practices and programs to fit their culture
   - Flexibility of evidence-based practices and programs and their implementation
   - Allows for evolution from a known base
5. Availability of useful information
   - Systematic reviews (Campbell Collaborative equals credibility)
   - Clinicians have ready access to internet to get information
   - Regional conferences and trainings

Discussion

These interviews were conducted to gain insight into the views of practitioners and administrators in the field. Needless to say, the sample was self-selected and the results are not generalizable. However, they do provide a glimpse of what some people are thinking and they might stimulate some discussion and thought. It was interesting that evidence-based practices and programs were seen not only as good ways to promote better practices but also as good ways to change provider organizations. It was encouraging to note that information about evidence-based practices and programs is seen as readily available and funding for better practices and their implementation is viewed as accessible.

Comparing the items generated at the 17th RTC Conference (reasons *not* to use evidence-based practices and programs) with those generated at the 18th RTC Conference (reasons *for*), we found many similarities. The similarities in the pros and cons tell us that the reasons/strategies that facilitate the use of evidence-based practices and programs for some may be barriers for others and may depend on the context/environment in which they are implemented. Although we have a lot of evidence about "programs that work," we have much less knowledge about the implementation and dissemination of evidence-based practices and programs in real world settings. There is still much more to be learned from program developers and implementation sites that are implementing evidence-based practices in the field.

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State Activities in Implementing Evidence-Based Programs for Children, Youth, and Families

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Introduction

This summary presents preliminary results of a state survey conducted by the National Association of State Mental Health Program Directors (NASMHPD) Research Institute. The survey was designed to obtain detailed descriptive information on state mental health agencies' (SMHA) policies, strategies, and mechanisms for implementing evidence-based practices (EBP) in mental health service systems for children, youth, and families. The study was conducted in the national context of the U.S. Surgeon General's Report (U.S. Department of Health and Human Services, 1999), which highlighted the discrepancies between the scientific knowledge base of effective interventions and routine practice in mental health service delivery settings, and the more recent report of the President's New Freedom Commission on Mental Health (New Freedom Commission on Mental Health, 2004), which underscored the pressing need for access to effective mental health interventions.

Demonstration projects have revealed the challenges faced by providers, practitioners, and consumers/families engaged in implementing evidence-based practices and strategies to overcome barriers (Bachman & Duckworth, 2003; Dixon et al., 2001; Drake et al., 2001; Hoagwood, Burns, Kiser, Ringeisen & Schoenwald, 2001; McFarlane, McNary, Dixon, Hornby, & Cimett, 2001; Schoenwald & Hoagwood, 2001; Torrey et al., 2001, 2002). Consideration has also been given to the policy-level implications (Goldman et al., 2001; Ganju, 2003) of incorporating EBPs into statewide mental health service systems. By documenting current state activities and implementation strategies, the field can understand the current scope of EBP and promising practice implementation, identify successful strategies for replication, and pinpoint areas for change and further research.

Methods

The survey instrument was developed in collaboration with states and other stakeholder partners and was composed of primarily open-ended questions covering the following topic areas:

- Types of EBPs and promising practices being planned or implemented
- Integration of EBP initiatives with other major initiatives
- How EBPs are implemented in rural and frontier areas
- Description of policy, procedural, or programmatic approaches used to integrate EBPs into practice settings
- Financing strategies
- Mechanisms used for training, coaching, and technical assistance
- Strategies used for evaluating and monitoring fidelity and outcomes; and methods for incorporating these data into management information systems
- Mechanisms used to collaborate with other agencies on initiatives related to EBP implementation
- Differential implementation strategies and needs for varying EBPs
- Facilitators of EBP adoption and implementation
- Needs for future implementation and dissemination

The sample included 50 states. Primary respondents were SMHA directors of adult and child/family mental health services. The survey was conducted during the period from December 2003 to June 2004 through telephone interviews lasting 1 to 1.5 hours. Interviews were audio taped and transcribed. Qualitative data from the transcribed interviews were collated into tables containing responses to each topic area from all states. Data in each table were then reviewed for emerging themes and categorized.

Results

A sample of findings from the larger survey results are presented in three areas: (a) cross-cutting issues faced by most states in implementing EBPs in both adult and child systems, and general approaches/strategies used; (b) types of EBPs being implemented across the states in children's mental health; and (c) examples of specific strategies being used to implement children's EBPs.

Cross-Cutting Issues

SMHA Governance and Structure of State Mental Health Systems. EBP initiatives are greatly influenced by the varied and somewhat unique governance and administrative structures of SMHAs. These vary by type (e.g., single state agency or divisions of larger health and human services agencies), extent of direct or indirect influence over regional or county community mental health centers, and whether provider agencies are public or private organizations. Some SMHAs are administratively linked with State Medicaid Authorities, which can facilitate restructuring of Medicaid programs to cover EBPs.

Motivation for EBP Initiatives. Most evidence-based practice initiatives were stimulated by leadership influences and the demand to transition high-need target populations from hospitals and other institutional settings into community-based treatment settings. Existing public-academic partnerships often were vehicles to start initiatives through collaborative demonstration grants.

Stage of EBP Initiatives and Competing Initiatives. States in early-stage initiatives of limited scope focused their responses more on implementation plans, consensus building, training efforts, and evaluation. States with a longer history of EBP implementation focused on how to promote statewide dissemination and make changes in the infrastructure to support EBPs. In these states more examples of innovative strategies were evident. States also faced the challenge of trying to integrate children's EBPs with other important initiatives and demonstrations related to Systems of Care, trauma interventions, early intervention, and violence prevention.

Promising and Emerging Practices. The need for more research on promising and emerging practices was most frequently expressed for child/family interventions such as wraparound approaches, respite, use of paraprofessionals for behavioral interventions, family support, and practices effective for more diverse cultural, ethnic, and geographic populations.

Monitoring Fidelity and Outcomes. Monitoring fidelity of EBPs remains an important concern of states in early phases of implementation. Some states in later stages of implementation have eased up on compliance to the original EBP standards, but acknowledge the need to focus on adherence more intensively. In contrast other states in later implementation stages have made adherence to fidelity a contract stipulation.

General Approaches and Strategies for Incorporating EBPs into Service Systems. The survey revealed states using an amalgam of approaches and strategies to bring EBPs and promising practices to their service delivery systems. Examples of the types of approaches include:

- Special legislative initiatives to fund EBPs
- Pooling funds from multiple agencies, and other forms of leveraging finances
- Statewide planning initiatives used to build consensus with multiple stakeholder groups
- System reform/deinstitutionalization as the driver of EBP initiatives
- Nesting EBP initiatives in quality improvement initiatives
- Nesting EBP initiatives in systems of care
- Building on existing service platforms
- Building new relationships with providers
- EBP information dissemination
- Interagency collaboration

Types of Practices Being Implemented

Table 1 outlines the proportion of states that reported implementing a particular evidence-based or promising practice in children's mental health services. However, with the exception of Multisystemic Therapy (MST) and Functional Family Therapy, the other practices listed do not signify adherence to a particular model. In addition, states reported having varying program standards and reporting criteria. The table shows a broad range of evidence-based and promising practices being implemented, but a relatively low proportion of states using most practices.

Table 1
Types of Evidence-Based or Promising Practices Implemented Across States

Evidence-Based or Promising Practice	*Percent of States Implementing (N=44)*
Therapeutic Foster Care	86 %
Multisystemic Therapy	61%
Wraparound	55%
School-based Mental Health	45%
Clinical Interventions (CBT,MDFT)	43%
Functional Family Therapy	30%
Intensive Home Intervention	27%
Family Support	27%
Trauma Interventions	27%
Respite	23%
Independent Living Skills	18%
Early Childhood Interventions	18%
Medication Guidelines or Algorithms	11%
Crisis Intervention	11%
Telepsychiatry	9%
Parent Management Training	9%
Screening/Assessment Support	5%

Specific Strategies for Implementing Children's EBPs

Following are a few examples illustrating strategies used to implement some of the most frequently utilized evidence-based and promising practices.

Multisystemic Therapy. The 27 states implementing MST reported collaboration with juvenile justice, the courts, and/or child welfare, often for children being diverted or transitioning from the juvenile justice system or out-of -home placements. Funding is accomplished through a variety of structures—sometimes using funds from Medicaid, juvenile justice, child welfare, and/or state funds. Medicaid is used, either by billing as an in-home service (using the rehabilitation option), or as the Medicaid managed care organization providing an enhanced service package. Initial training is typically conducted by MST services. In a few states the responsibility has been transferred to the state training and supervision infrastructure. One state has a state coordinator co-located at MST services.

School-based Mental Health. Many states report that they are working with schools to provide mental health services in schools, either through locating mental health counselors in schools or collaborating in school-based mental health centers. South Carolina has been instituting a best practices model which is currently in 467 elementary and middle schools. Therapists provide direct services and referrals to community mental health centers, and are jointly funded by the state mental health agency and school districts. In West Virginia 17 school-based mental health centers have been created through a collaborative initiative between mental health, schools, and primary health care that is funded through block grant, state dollars, Medicaid, and/or foundation dollars. These centers are reported to be effective in increasing access to mental health services in rural mountain areas.

Clinical Interventions. Many states reported providing clinical EBPs, such as functional family therapy, cognitive behavior therapy, dialectical behavior therapy, multidimensional family therapy, and intensive in-home psychiatric services. The states of Hawaii, Connecticut, and New York have public-academic relationships to provide the infrastructure for training clinicians. In New York school-based mental health counselors are being trained in a range of clinical EBPs, and the state is also collaborating with child welfare to implement family functional therapy.

Wraparound Services. Wraparound is reported in 24 states, with the Vandenberg model most frequently mentioned (VanDenBerg & Grealish, 1996). Funding for the program is pooled from the State Mental Health Authority, other state agencies, state general funds, block grant dollars, Medicaid (targeted case management) or system of care grants. Training is provided by the state for certification, or national experts are utilized with the responsibility then transferred to the state. Family members are also used as trainers in some states.

Conclusion

This qualitative survey allowed for a broad-brush assessment of state EBP and promising practice implementation scope, strategies, and challenges. However, because of the variation in state mental health agency structures and reporting criteria, the mental health authority may not know every EBP being planned, piloted, or offered (especially clinical ones). The frequency and types of practices reported here are most likely lower than if we also included county-level mental health authorities. The results show that most states are still in the implementation phase, versus dissemination stage. This involves exploring, trying out, and working through how to integrate EBPs in the current service system and how to change the system as needed. The next step is to conduct more focused, in-depth studies of specific EBPs and strategies integrating process and outcome data for better understanding of impact and effectiveness.

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Symposium
Evidence-based Practices in the Community-based Service Setting: Findings from the Evidence-based Treatment (EBT) Survey of Providers

Chair
Angela K. Sheehan

Discussant
Sylvia Fisher

Authors
Wendy L. Struchen-Shellhorn et al.
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Symposium Introduction

Angela K. Sheehan

In efforts to understand the gap between research and practice, it is important to understand the status of evidence-based practice (EBP) knowledge, use, and the factors that influence use from the provider perspective. This symposium included three papers that summarized findings from the Evidence-Based Treatment (EBT) Survey, administered to providers affiliated with Center for Mental Health Services (CMHS)-funded systems of care to explore provider knowledge of EBPs and the factors that influence the use of EBPs among various subgroups of providers. The goal of the symposium was to provide an understanding of EBP knowledge and use among providers affiliated with CMHS-funded systems of care. The first summary focuses on provider knowledge of EBP and explores the relationship between the correct definition of EBP and provider characteristics. The second summary looks at training and treatment implementation factors related to the use of the six most commonly identified evidence-based practices. Descriptive analyses were used to summarize provider demographic and workforce characteristics and training and treatment implementation factors by type of EBP reported as used. The third summary focuses on differences between providers affiliated with Native American communities and those affiliated with non-Native American communities. Differences related to EBP familiarity, perceived effectiveness and use and relationships between groups on demographic and workforce characteristics and factors considered when deciding to use an EBP were explored. Dr. Sylvia Fisher, Director of Evaluation for the Child Adolescent and Family Branch at the Center for Mental Health Services was the discussant. Dr. Fisher discussed the implications of the EBT survey findings and future directions for the field related to the transfer of knowledge and use of evidence-based practices with children with severe emotional disturbances.

Understanding the Evidence-based Practice Knowledge Base of Mental Health Providers Serving Children with Severe Emotional Disturbance

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Introduction

Changes in the mental health care system, such as the increase in managed care environments, over the past few decades have begun to demand that mental health service providers truly integrate science with practice resulting in a shift toward the more efficient use of evidence-based practices (EBPs). However, there is some division in the field regarding the use of a standardized format for treatment, with some individuals placing a higher value on the use of research to support practitioner training while others place greater value in training for practice (Chwalisz, 2003; Hoshmand, 2003). Chwalisz (2003) suggests that the use of an EBT model that advocates for an expansion of the notion of scientific evidence can help bridge this gap. The process of integrating EBTs has been slow (Schor, 1997), in part because of the variety of educational backgrounds and degrees of practicing mental health providers that support the differing research-based and client-based mindsets. As a result, there is a need to better understand the variations in their ongoing EBP training needs so that effect of therapeutic interventions can be maximized.

Method

For a number of years, the Center for Mental Health Services (CMHS) has provided resources to facilitate implementation of the system of care (SOC) approach across multiple child- and family-serving agencies (Eber, Sugai, Smith, & Scott, 2002; Webb & Jones Harden, 2003). Subsequently, efforts to document and evaluate activities within SOC communities led the CMHS to sponsor a national evaluation of the initiative. The national evaluation has included child and family descriptive and outcome data collection and system-level assessments within funded SOC communities, as well as special studies such as the comparison of outcomes between children served in SOCs to those served in service-as-usual settings (Holden, Friedman & Santiago, 2001; Hernandez et al., 2001; Stephens et al., 2005).

The cross-sectional study described in this summary includes data gathered from mental health professionals working with children identified as having severe emotional disturbance. These professionals were affiliated with 26 system-of-care communities funded in 1997/98 and two non-funded communities that participated in the comparison study. A modified snowball sampling approach was used to recruit respondents providing services in the target communities to complete a web-based or paper copy of a 65-item survey regarding EBP knowledge, use and practice. A total of 422 respondents completed all items under investigation. In addition to descriptive statistics, Pearson correlation coefficients, and regression analyses were calculated. Study limitations include voluntary participation, limits to randomness in recruitment, and lack of racial/ethnic diversity among respondents.

Respondents were mostly women (67.1%), White (88.9%), and averaging 42 years old with 9.4 years of experience. Most (76.1%) were licensed with at least a Master's degree (MA; 89.3%). Degrees included counseling/social work (56.4%), psychology/psychiatry (25.4%), medical (2.1%) and other fields of study (9.2%). Respondents were asked to define the term evidence-based treatment. The open-ended definitions were then classified into five categories; these included definitions which made reference to: *proven effective through research* (64.7%), *documented change in clients* (16.4%), *developed individualized outcomes* (10.0%), *proven to work* (7.3%), and *Other* (1.4%). For the purpose of this study, proven effective through research was identified as a correct definition of EBT. The category proven to work was dropped from analyses due to a lack of clarity regarding whether it was based on individual client outcomes or research. The remaining categories were combined and defined as an incorrect definition.

Results

Characteristics of respondents varied greatly. For example, on average, men were older (43.6 years) than women (41.2 years; $p < .05$). Men were more likely to have earned a higher degree (professional or doctoral degree, 48.1%) than not (29.6, $p < .01$) and were more likely to have a degree in psychology/psychiatry (42.1% vs. 29.8%, $p < .01$). There were also racial differences with Whites (17.9%) being more likely to have a higher degree than Blacks (8.3%, $p < .05$). Bivariate correlations revealed that age, education, years of experience and licensure were significantly correlated with one another. A multivariate logistic regression model of the correct definition of EBT with age and education (<MA, MA, >MA) identified a negative association with age ($p = .02$) and a positive association with education ($p < .05$). Neither age, race, nor ethnicity was significant when subsequently added to the model.

In addition to being asked to define EBTs, respondents listed up to three advantages and disadvantages to using evidence-based treatments. The leading advantages to using EBTs were that the practices were an effective and efficient approach to treatment and that protocols and guidelines provided standardized structure. Respondents indicated that EBTs offered measurable outcomes of client change and that EBTs were supported by research of their effectiveness. Finally, respondents indicated that EBTs offered consistent, valid approaches that increased client satisfaction with the intervention. The most common disadvantages included the belief that EBTs were too structured and lacked flexibility

to address individual differences among clients, thereby limiting their usefulness at the practice level. There were also concerns regarding the quality and generalizability of the research, especially across cultural differences. Finally, it was reported that the use of EBTs were resource intensive and inhibited the development and use of other therapies.

Another set of survey questions asked respondents to identify, from a list of known evidence-based treatments, which ones they: (a) believed resulted in positive outcomes; (b) did not believe resulted in positive outcomes; (c) were familiar with but were not sure whether it resulted in positive outcomes; or (d) were not familiar with the practice. Based on the beliefs of the respondents, the EBTs most commonly reported as being effective in producing positive outcomes included social skills training, family education and support, medication, cognitive behavior therapy, anger management, modeling, problem solving training, case management, mentoring and relaxation training. For some practices, there were statistically significant differences between the proportion of respondents with differing education levels that indicated the approach was effective, including cognitive behavioral therapy, stimulant medication for Attention Deficit Hyperactive Disorder, anti-depressants for mood disorders, systematic desensitization, mentoring, exposure therapy, and voucher-based contingency management.

Conclusions

Knowledge regarding EBTs is provided through formal academic training and continuing professional development activities, which have evolved over time. Younger professionals with higher degrees are likely to have received more academic training regarding EBTs while older professionals who may be more likely to have received their training prior to the focus on EBTs may lack adequate knowledge in their use. Conversely, professionals without higher levels of academic training or licensure also need additional, and yet different, training foci based on their knowledge base.

Previous literature has indicated that variations in the workforce exist and that those variations should be considered when targeting future professional development activities. For example, older providers have been found to serve fewer patients and receive less managed care funding than younger professionals (Pignitore, Scheffler, Schwalm, Zarin & West, 2002). This may be an indication that they are spending more of their time practicing outside the growing mainstream of managed care. As a result, it may be more efficient to focus professional development training efforts regarding specific EBTs on younger professionals, especially those with a Master's degree or less. In addition, identifying differences in the knowledge base of various types of mental health professionals will help to identify subpopulations to target for professional development training. These differences can also provide guidance regarding the types of EBT approaches that should be included in that training. Finally, understanding specific professional development training needs regarding EBTs for different mental health providers can help tailor learning opportunities to succinctly meet those individual needs and can improve provider skills and ultimately improve the treatment outcomes for children identified with severe emotional disturbance.

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Evidence-based Practice in the Community-based Service Setting: Factors that Influence Mental Health Provider Use

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Introduction

An evolving mental health care environment has focused attention on the need for research-based practices that support effective treatment for mental disorders. Local, state and federal level officials have called for enhanced service quality specifically for children, through the practice of research-based clinical interventions (Burns & Friedman, 1990; Burns, 1999, US Department of Health and Human Services [USDHHS], 2001). As a result, more attention has been given to studying the efficacy and to a lesser extent the effectiveness of treatment interventions in the community-based setting (Burns & Hoagwood, 2002; USDHHS, 2001). However, there is a growing consensus that what is known about treatment interventions have not been adequately transferred into clinical practice (Burns, Hoagwood, & Mrazek, 1999; Jensen, Hoagwood, & Petti, 1996; Wells, 1999; National Advisory Mental Health Council Workgroup, 2001; Hoagwood, 1997; Simpson, 2002; Weisz & Donenberg, 1995). Difficulties transferring knowledge to the practice setting have been attributed to many factors, including workforce issues.

This study attempted to provide an understanding of the status of evidence based practice (EBPs) use in Center for Mental Health Services (CMHS)-funded systems of care by exploring factors that influence mental health providers' use of EBPs in the community-based setting. Data from the Evidence-based Treatment Survey of providers affiliated with the federally funded Comprehensive Community Mental Health Services for Children and Their Families Program (CMHS, 2001) were used to describe provider characteristics and address issues of whether adequate implementation of EBPs is occurring, as evidenced by follow-up training activities and full implementation of the treatment protocols.

Methods

Sample and Measures. The EBT Survey was designed as a 65-item web-based survey (with available hard copy) of direct mental health service providers to children with serious emotional disturbance (SED) and their families affiliated with the Comprehensive Community Mental Health Services for Children and Their Families Program. The Survey was conducted as part of the mandated national evaluation of this federal initiative with a subset of communities. More detail about the national evaluation is provided elsewhere (Holden, Stephens, & Santiago, 2001).

The EBT Survey contained questions related to (a) provider knowledge about existing evidence-based practices; (b) provider use of evidence-based practices; (c) the training received in evidence-based practice approaches; (d) the extent to which evidence-base practices are implemented according to guidelines; and (e) provider demographic information, including age, gender, race, primary employer, current position, highest degree earned, years as a mental health service provider, years in the current service system, and years as a children's mental health service provider. Training characteristics included type of initial training received and year since initial training. Frequency of follow-up training activities and treatment guideline characteristics included the extent to which respondents indicated their full implementation of the EBP protocol.

Procedure. A two-stage process (i.e., modified snowball approach) was used to identify a comprehensive list of mental health clinicians from each targeted community. The first stage involved a structured phone contact with the community director during which they were asked to identify all agencies and organizations that provide mental health services to children eligible for or enrolled in system of care services. The second stage involved contact with each agency/organization identified

at stage one, and a request for a list of their mental health clinicians (1,669 appropriate respondents identified; range 1 – 90 per agency; average number of appropriate respondents per stage two contact = 5.5). A proportional sample (using an average of 50 respondents per community for a total of 1,402 respondents as the target) was selected from the list of identified potential respondents. Sampling was performed within any system-of-care community where 80 or more potential respondents were identified. A five-stage mailing process was used to recruit selected potential respondents for the cross-sectional EBT Survey.

Participants. Data collection for the EBT Survey began in late August 2003 and continued through January 2004. Survey responses were received from 616 individuals from 28 communities who were identified via 26 system-of-care sites funded in 1997/98 and two comparison sites for a 44% response rate.

Six hundred and sixteen individuals responded to the survey. Of those, 556 (90%) indicated they were direct mental health service providers and 446 (80%) of those identified that they used at least one known evidence-based practice other then medication in the course of their work. The 446 direct service providers who identified the use of at least one documented EBP were included in the current study sample. The majority of respondents in the current sample had received a Master's or Doctoral degree (89%) as their highest level of education. Most respondents were employed by a mental health agency (57%) and were licensed mental health providers (77%) with primary positions as clinicians or therapists (51%). Respondents in the current study had worked an average of 6.1 (*SD* = 5.9) years in their current service system, 9.2 years (*SD* = 7.4) serving children with SED, and 11.2 years (*SD* = 8.4) as mental health providers. The majority of respondents were female (67.6%), White (85.4%), and had an average age of 42.2 (*SD* = 10.8) years.

Results

Respondents were asked to identify up to three evidence-based practices other than medication used in the course of their work. The most commonly identified EBPs were Cognitive Behavioral Therapy (CBT; 65.0%), wraparound (18.4%), followed by anger management, social skills training, family education and support, and case management, which were all identified by over 10% of respondents. Descriptive analyses were used to summarize the demographic and workforce characteristics of providers of the six most frequently identified EBPs and the training and treatment implementation factors related to those EBPs. CBT was the most commonly identified EBP used in the course of work, with 65.0% of respondents identifying it as one of their three primary EBPs. Wraparound was the second most frequently identified (18.4%), followed by anger management, social skills training, family education and support, and case management, which were all identified by over 10% of respondents.

Demographic and Workforce Characteristics

The majority of providers across the six most commonly identified EBPs were female, White, with an average age ranging from 40.8 for social skills training to 44.5 for family education and support (see Table 1). Table 1 also shows that for each of the six most commonly identified EBPs, the majority of respondents were highly educated, particularly for CBT with over 95% of CBT users having an advanced degree. Most were employed by a mental health agency, but were not required by their agency to implement EBP.

Training and Treatment Implementation

The study focused on the training and treatment implementation factors for the six most commonly identified EBPs. Provider training activities and implementation factors differed depending on the practice identified as used (see Table 2). Within each practice, providers of anger management, social skills training, and family education and support varied widely in their training and treatment implementation experiences. For example, initial training for anger management providers was evenly split across graduate school, conferences/workshops, agency sponsored/inservice, and other or

no training. Among social skills training providers, a similar percentage indicated *never or less than annually* participating in follow-up activities as indicated *at least monthly follow-up*. This suggests that these practices are provided with greater variability within the service settings. CBT providers, wraparound providers, and case management providers seemed to share similar training and treatment implementation experiences within each practice. For example, the majority of CBT providers received initial training in graduate school and the majority of wraparound and case management providers received instruction through *agency sponsored or inservice training*.

Overall, there was a lack of full treatment implementation for providers of all six practices, particularly CBT. Interestingly, a little over half of wraparound providers and case management providers reported implementing the full protocol, which is somewhat surprising given the lack of a clear formalized protocol for these practices.

Table 1
Demographic and Workforce Characteristics for Most Commonly Identified EBPs

	CBT (n=256)	*Wraparound (n=75)*	*Anger Management (n=64)*	*Social Skills Training (n=56)*	*FES (n=60)*	*Case Management (n=54)*
Demographic characteristics						
Female	68.8%	65.3%	73.0%	71.4%	65.0%	72.2%
Age [Mean (*SD*)]	42.8 (11.0)	41.1 (10.7)	42.7 (11.4)	40.8 (10.7)	44.5 (10.6)	40.4 (9.9)
White	92.6%	90.7%	82.8%	87.5%	90.0%	81.5%
Workforce characteristics						
Advanced degree	95.4%	77.3%	82.8%	82.5%	88.3%	83.3%
Employed by Mental Health Agency	58.0%	73.7%	57.8%	55.4%	60.0%	66.7%
Agency required use of EBP	36.2%	54.7%	34.9%	35.1%	41.0%	41.5%
Years in current delivery system [Mean (*SD*)]	6.1 (5.9)	5.3 (5.1)	6.4 (6.2)	5.4 (6.1)	7.8 (7.0)	5.6 (4.7)
Years as mental health provider [Mean (*SD*)]	11.2 (8.6)	10.4 (6.9)	10.9 (8.2)	11.9 (8.5)	13.5 (9.1)	10.7 (7.0)
Years as provider for children with SED [Mean (*SD*)]	9.1 (7.5)	8.6 (7.0)	8.0 (7.1)	9.5 (7.6)	11.1 (8.4)	9.1 (7.2)

Table 2
Training and Treatment Implementation Factors for Most Commonly Identified EBPs

	CBT (n=256)	*Wraparound (n=75)*	*Anger Management (n=64)*	*Social Skills Training (n=56)*	*FES (n=60)*	*Case Management (n=54)*
Training Activities						
Source of initial training						
Graduate School	68.8%	6.8%	25.0%	25.0%	24.1%	18.0%
Conf/Workshop/Cont. Ed	12.9%	23.0%	28.3%	32.1%	24.1%	10.0%
Agency sponsored or in-service	4.7%	54.1%	25.0%	25.0%	18.5%	40.0%
Other or no initial training	13.7%	16.2%	21.7%	17.9%	33.3%	32.0%
Follow-up Frequency						
Annually	47.2%	43.8%	41.4%	36.5%	39.1%	38.1%
At least monthly	23.6%	37.5%	19.0%	32.7%	30.4%	45.2%
Never/Less than annually	29.2%	18.8%	39.7%	30.8%	30.4%	16.7%
Years since initial training [Mean (*SD*)]	10.7 (7.0)	6.2 (5.6)	9.5 (6.2)	9.6 (6.2)	12.7 (8.5)	9.4 (7.2)
Full implementation of protocol	35.4%	68.0%	54.1%	50.8%	50.0%	58.8%

Discussion

The results of this study yielded a number of interesting findings for consideration, as policies are developed to increase and improve the EBP training efforts among frontline service providers, and ultimately the use of evidence-based interventions for children and their families at the community practice level. Providers responding to the survey reported the use of 25 practices with an existing evidence base in these service systems. Of the most commonly identified EBPs, CBT, anger management and social skills training share many of the same features in terms of theoretical background and therapy procedures. Alternatively, wraparound, family education/support and case management are emerging intervention approaches that do not strictly satisfy the research criteria to be considered evidence-based (Burns & Hoagwood, 2002), but are used with increasing frequency with children displaying complex and chronic mental health disorders that require interagency involvement and collaboration (Bruns, Burchard, Suter, Leverentz-Brady & Force, 2004). In terms of initial training, it is clear that sources of initial training vary, particularly for those who provide anger management, family education and support, and social skills training. There was less variation for CBT, wraparound and case management. The high percentage of initial training received through agency sponsored or inservice training for wraparound and case management providers was not surprising considering the respondents were affiliated with systems of care, which utilize family involvement, case management and wraparound as the cornerstone of their approaches (Holden et al., 2003).

Interestingly, there was a low level of full treatment implementation across all six practices, particularly for CBT. This suggests that the use of these practices may be occurring in the absence of ongoing training and implementation fidelity supports, and that the resources targeted toward training and supporting the implementation may not be fully realized. A little over half of wraparound providers and case management providers reported implementing the full protocol, which is somewhat surprising given the lack of a clear formalized protocol for these practices. As more attention is given to the need to provide evidence-based practice in the community-based service setting, it is important to understand EBP use and the training and treatment implementation experiences of mental health providers. Morris & Stuart (2002) attributed challenges in implementing treatment interventions to financial constraints placed on child-serving agencies. As a result, policy makers and administrators must develop strategies to maximize scarce resources. Ensuring that effective treatment is provided in the service setting and that service providers are trained and adequately implementing treatment protocols is essential.

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Native American Community Affiliated Mental Health Providers for Children with Severe Emotional Disturbance: Evidence-based Practice Knowledge, Perceptions and Factors that Influence Decisions

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Introduction

In a 1990 assessment of mental health needs of American Indian and Alaska Native adolescent health issues, the U.S. Congress, Office of Technology Assessment (1990) found existing data to be scarce regarding the mental health needs of Native American and Alaska Native children. A recent issue of *The Journal of the National Center* (2004) indicates this problem continues. However, what little data does exist suggests American Indian and Alaska Native children have a higher degree of mental health issues compared to the rest of the U.S. population (Freeman, Iron Cloud Two-Dogs, Novins, & LeMaster, 2004). According to a 1996 study, there was an estimated 93,000 Indian children with serious emotional disturbance in the United States (Deserly & Cross, 1996). Given the prevalence of severe emotional disturbance in Native American children, strategies to meet their mental health needs, such as implementing evidence-based practices, are needed. The purpose of this study is to explore the knowledge and use of EBPs by providers that serve Native American children and to compare Native American affiliated providers to non-Native American affiliated providers on factors that influence their decisions to use an EBP with a child and family.

This study described EBP knowledge and use among providers that serve Native American children with severe emotional disturbance (SED) and compares providers affiliated with CMHS-funded Native American communities (NA providers) to providers from non-Native American CMHS-funded communities (non-NA providers) on demographic and workforce characteristics and factors that influence decisions to use EBPs with children. Data from the Evidence-based Treatment (EBT) Survey of providers affiliated with the federally funded Comprehensive Community Mental Health Services for Children and Their Families Program (Center for Mental Health Services [CMHS], 2001) were used.

Methods

Sample and measures. The Evidence-based Treatment (EBT) Survey was designed as a 65-item web-based survey (with available hard copy) of direct mental health service providers to children with serious emotional disturbance and their families affiliated with the Comprehensive Community Mental Health Services for Children and Their Families Program. The Survey was conducted as part of the mandated national evaluation of this federal initiative with a subset of communities. More detail about the national evaluation is provided elsewhere (Holden, Friedman, & Santiago, 2001).

Survey respondents were identified through contacts with agencies involved with 28 communities affiliated with the Comprehensive Communities Program, 26 of which were funded as part of the program and two not funded but selected as comparison sites. Of the 28 communities, four were communities serving Native American children and families. Six hundred and sixteen individuals responded to the survey, 76 of which were affiliated with Native American communities. Of total respondents, 556 (90%) indicated they were direct mental health service providers and 467 (76%) of those identified the use of EBPs in the course of their work. Of the 76 providers affiliated with Native American communities, 67 (88%) were direct service providers and 59 (78%) identified the use of EBPs in the course of their work. Available data were used for each respondent.

Results

Bivariate Relationships

Table 1 summarizes bivariate relationships between provider community affiliation and provider characteristics. NA providers differed significantly from non-NA providers by gender, race, and primary employer. Females accounted for a smaller percentage of NA providers compared to non-NA providers. A higher percentage of NA providers were of American Indian or Alaska Native backgrounds, with more NA providers employed by residential treatment facilities compared to non-NA providers. NA providers did not differ significantly from non-NA providers on factors of age, education level, field of discipline, and primary position, with the majority in both groups being highly educated, serving as clinicians or therapists, and having degrees in psychology or social work. NA providers were as experienced if not more experienced, with more years as a mental health provider and a higher percentage of licensed mental health providers. A significantly smaller percentage of NA providers were required by their agency to provide EBPs.

Table 1
Demographic Characteristics for EBT Survey Respondents

Provider Characteristics	*NA Affiliated Provider*	*Non-NA Affiliated Provider*	*Statistical Tests*	*Odds Ratio (SE)*
Race (*n*=425)				
White	82.4%	85.6%	$\chi^2(2) = 8.550^*$	18.4 (1.3) *
American Indian or Alaska Native	3.9%	0.3%		
Other or Not Specified	13.7%	14.2%		
Gender (*n*=424)				
Female	54.9%	69.7%	$\chi^2(1) = 4.513^*$	ns
Male	45.1%	30.3%		
Primary Employer (*n*=426)				
Mental Health Agency	58.8%	57.6%	$\chi^2(2) = 15.841$ ***	Reference
Residential Treatment	11.8%	1.9%		5.362 (.71) *
Other	29.4%	40.5%		ns
Advanced Degree (*n*=428)				
Yes		88.5%	89.4%	ns
No	11.5%	10.6%		
Primary Field of Discipline (*n*=393)				
Psychology	36.7%	28.8%	ns	not entered
Social Work	15.2%	27.6%		
Counseling	10.2%	20.6%		
Other	18.4%	23.0%		
Primary Position (*n*=370)				
Clinician/Therapist	57.5%	50.9%	ns	not entered
Clinical Social Worker	17.5%	13.0%		
Other	25.0%	36.1%		
Agency Requirements (*n*=376)				
Yes	23.1%	40.2%	$\chi^2(1) = 5.653^*$	ns
Licensed Mental Health Provider (*n*=376)				
Yes	94.2%	73.7%	$\chi^2(1) = 10.639$***	4.6 (.76) *
Age (n=*4*25)	44.8 (9.2)	41.8 (11.0)	ns	not entered
Years as a mental health service provider (*n*=423)	14.2 (8.4)	10.9 (8.3)	$F(1.1) = 3.3$**	1.04 (.02) *
Years as a mental health service provider for kids (*n*=420)	10.9 (8.3)	14.2 (8.5)	ns	not entered
Years in the current delivery system (*n*=408)	7.4 (7.0)	5.8 (5.5)	ns	not entered

$^*p < .05$, $^{**}p < .01$

Table 2 summarizes bivariate relationships between provider community affiliation and the factors they considered when deciding to use an EBP. Interestingly, NA providers did not significantly differ from non-NA providers on the extent to which child factors were considered when deciding when to use an EBP, with the exception of home situation and treatment setting. Specifically, although one might expect NA providers to consider the child's race or cultural background to a greater extent than non-NA providers, neither group endorsed these factors, with less than 25% of both groups always/almost always considering these factors.

Table 2
Factors That Influence the Decision to Use EBP with a Particular Child and Family

Child's Factor	*NA Affiliated Provider*	*Non-NA Affiliated Provider*	*Statistical Tests*	*Odds Ratio (SE)*
Child's Age			ns	not entered
Always / almost always	56.9%	60.6%		
Sometimes	29.4%	24.1%		
Never / almost never	13.7%	15.2%		
Child's Gender			ns	not entered
Always / almost always	16.0%	17.7%		
Sometimes	26.0%	22.7%		
Never / almost never	58.0%	59.6%		
Child's Race				
Always / almost always	23.5%	19.5%	ns	not entered
Sometimes	35.3%	28.0%		
Never / almost never	41.2%	52.5%		
Child's Cultural Background			ns	not entered
Always / almost always	23.5%	23.5%		
Sometimes	43.1%	38.8%		
Never / almost never	33.3%	37.7%		
Child's Caregiver			ns	not entered
Always / almost always	54.9%	47.4%		
Sometimes	29.4%	34.5%		
Never / almost never	15.7%	18.2%		
Child's diagnosis			ns	not entered
Always / almost always	76.5%	68.5%		
Sometimes	15.7%	18.4%		
Never / almost never	7.8%	13.1%		
Child's home situation			$\chi^2(2)^*=6.07^*$	ns
Always / almost always	72.5%	55.3%		
Sometimes	21.6%	29.7%		
Never / almost never	5.9%	15.0%		
Child's treatment setting			$\chi^2(2)^*=8.295$	
Always / almost always	71.4%	49.6%		3.1 (.59)*
Sometimes	18.4%	31.4%		ns
Never / almost never	10.2%	19.0%		Reference

Notes: $^*p < .05$

Logistic Regression Analyses

To identify whether a provider's community affiliation was associated with their demographic characteristics, employment characteristics, and factors that influence their EBP use, a backward stepwise logistic regression analyses was performed. Only those factors and characteristics that resulted in bivariate relationships with provider community affiliation at a significance level of $p \leq .10$ level were entered into the model and results are summarized in Table 1. The results indicated a significant association between provider affiliation and race, primary employer, licensed mental health provider, years as a provider, and consideration of the child's treatment setting (see Table 1),

Providers' Community Affiliation and their EBP Knowledge, Effectiveness, and Use

After exploring the association between community affiliation and demographic and workforce related characteristics, and child related factors that influence EBP, differences in EBP knowledge and use by community affiliation were explored. Significant differences in practice familiarity between NA providers and non-NA providers were found, with NA providers indicating significantly less familiarity with certain practices and more familiarity with other practices (although not significant). For example, NA providers indicated less familiarity than non-NA providers with brief strategic family therapy (81.1% vs. 91.8%), $\chi^2(1) = 6.22$, $p < .05$, Webster Stratton's parent child series (5.7% vs. 19.8%), $\chi^2(1) = 6.31$, $p < .05$, systemic desensitization (85.2% vs. 93.3%), $\chi^2(1) = 4.06$, $p < .05$, and functional family therapy (62.3% vs. 75.3%), $\chi^2(1) = 4.06$, $p < .05$. NA providers demonstrated a higher familiarity with a number of practices compared to non-NA providers although these differences were not significant (e.g. multi-systemic therapy, wraparound, case management, cognitive behavioral therapy (CBT), mentoring, family education and support, social skills training, emotive imagery therapy, common sense parenting).

Similarly, perceived effectiveness for the entire study sample was relatively high, with a few exceptions. Interestingly, those who did not perceive a practice to be effective indicated that they did not know the effectiveness rather than that the practice was not effective. For example, of the nine practices with only a minority of respondents believing it to be effective, only two practices had over 5% of respondents believe it to be ineffective. These included emotive imagery therapy (8.3%) and exposure therapy (8.0%). The only significant differences in perceived effectiveness between NA providers and non-NA providers were found for wraparound and stimulant medication for Attention Deficit Hyperactive Disorder, with 64.2% of NA providers believing wraparound to be effective compared to 77.5% of non-NA providers, $\chi^2(1) = 4.5$, $p < .05$, and 81.5% of NA providers believing stimulant medication for ADHD to be effective compared to 86.8% of non-NA providers, $\chi^2(2) = 6.53$, $p < .05$. However, neither provider group found wraparound to be ineffective; rather, a higher percentage of NA providers did not know of the practice's effectiveness (35.8%).

The most commonly used EBPs by all respondents were CBT (62.1%), wraparound (17.6%), anger management (14.6%), family education and support (14.3%), social skills training (13.1%), and case management (11.8%). A few significant differences between provider groups were found. For example, a higher percentage of NA providers identified assertiveness training (8.5%) than non-NA providers (2.9%), $\chi^2(1) = 4.50$, $p < .05$ and exposure therapy compared to non-NA providers (6.8% vs. 1.5%), $\chi^2(1) = 4.5$, $p < .01$. In addition, a significantly higher percentage of NA providers identified solution-focused therapy compared to non-NA providers (13.6% vs. 5.4%), $\chi^2(1) = 5.72$, $p < .05$, and respite compared to non-NA providers (3.4% vs. 0.5%), $\chi^2(1) = 5.10$, $p < .05$. Conversely, a higher percentage of non-NA providers identified wraparound (19.1%) compared to NA providers (6.8%), $\chi^2(1) = 5.42$, $p < .05$.

Discussion

The findings suggest that providers affiliated with Native American communities are as experienced if not more experienced than non-Native American affiliated providers, do not differ in terms of familiarity, perceived effectiveness, and use of most EBPS, and do not differ on what factors influence the decision to use an EBP with a child and family. The implications of these findings have multiple interpretations.

Although providers affiliated with Native American sites differ in some respects from non-Native affiliated providers in terms of demographic and workforce characteristics, it seems that for the most part they do not differ by the factors they consider when deciding to use EBP, with the exception of the child's treatment setting, and do not differ in terms of EBP knowledge, perceived effectiveness, and use, with a few exceptions. Although NA providers indicated not knowing the effectiveness of wraparound at a higher rate, this is not surprising given that NA providers were as familiar if not more familiar with wraparound, and there is a lack of effectiveness research for wraparound.

The seemingly similar perceptions and use of EBP is encouraging from the perspective of consistency in treatment and EBP use for Native American children and non-Native American children alike, but less encouraging when considering Native American cultural implications. Retraditionalization, defined by LaFromboise, Trimble, & Mohatt (1990) as the reliance on cultural beliefs and customs to overcome Native American problems and achieve self-determination, has been identified as essential to the revitalization of American Indian and Alaska Native communities (Morris, Crowley, & Morris, 2002). The findings of the EBT survey suggest that providers serving children in Native American communities are fairly similar in terms of EBP use to providers working in non-Native American communities, which, given that most EBPs have not been specifically developed for Native American children and Native American culture, seems to contradict the call for retraditionalization.

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Symposium Discussion

Sylvia Fisher

The Evidence-based Treatment (EBT) Survey provides important information on the types of treatments being used with children with severe emotional disturbance (SED) in the community-based setting. Although the survey has limitations, the findings provide a better understanding of EBP knowledge and use from the provider perspective. A few limitations that must be considered when interpreting these findings include how well the survey sample represents providers serving children participating in systems of care and providers in non-system of care settings. Another limitation of the survey is that it is not clear how much the child population being served (i.e. diagnoses, age, etc.) influences the use of specific EBP in these service systems, which may have impacted the EBPs that were endorsed by providers.

The use of a modified snowball sampling is certainly an appropriate choice of sampling technique for this type of survey study. However, it should be noted that snowball sampling typically relies upon relationships between people who know each other or at least know of each other. This type of referral process has a small potential problem: people who refer others for a snowball sampling study may be quite likely to refer people who are very similar to them and/or who hold similar opinions. This dimension is difficult to assess when using snowball samples, but should be considered as a potential limitation of the design.

Even with these limitations, there are a few interesting implications of the survey findings. Surveyed providers seem to be well educated and have an overall understanding of EBPs, with the majority providing a correct definition. This suggests that the gap between research and practice may have more to do with the service providing agencies than the individual providers, calling for more education at the agency level. The findings from the survey provided an interesting picture of providers affiliated with Native American sites. It was somewhat surprising that more Native American affiliated providers did not endorse wraparound, although this may be due to these providers using different language when describing a similar approach. Survey findings also suggest that there is clearly a need for resources dedicated to bringing more males into the mental health profession. In addition, the lack of full treatment implementation brings into question whether resources are being properly allocated and suggests that more focus be placed on monitoring the administration of EBPs beyond initial training.

The information gathered through the EBT Survey is important to better understand EBPs in the system of care context. Future efforts should focus on organizational factors that influence the use of EBPs in the service setting and broaden the information gathered to address practice-based evidence.

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Organizational Readiness for Change and Implementation of Evidence-Based Practices in Children's Mental Health

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Introduction

Evidence-based practice is an emerging concept that reflects a burgeoning effort to build quality and accountability in mental health service delivery. Though not yet formally recognized on the national Canadian health care agenda, the concept conveys a fundamental belief that children with emotional and behavioral disorders should be able to count on receiving care that meets their needs and that is based on the best scientific evidence available; there is a fundamental concern that for many of these children, the care that is delivered is not effective care (Huang, Hepburn & Espiritu, 2003). Bringing evidence-based treatment to Ontario requires a dual effort: (1) to provide the financial resources and public agenda to see that children receive services on the basis of need, not availability, and (2) to ensure that the services provided are of the highest quality and most scientifically sound. While the government must address the financial aspects of this course, the children's mental health sector is challenged to move forward on the accountability and quality front.

If Ontario's children's mental health system is going to tackle the implementation of evidence-based practices, then what do we need to know to get the job done? This question provides the main focus of the work described here[1]. A survey of Executive Directors and clinical staff in 80 children's mental health service provider organizations was conducted in order to better understand the barriers and facilitators to their use of research knowledge, their capacity to link with the evidence based literature, their use of evidence-based treatments, and their characteristics relative to organizational readiness for change.

Methodology

Procedure and Instrumentation Package

Two data collection forms were used to survey clinical staff and Executive Directors from the 80 Children's Mental Health Ontario (CMHO) member organizations. Clinical staff and Executive Director survey forms were developed using a web-based survey application. A letter describing the purpose of the project and providing the URL links to the two surveys was sent by electronic mail from the office of CMHO to the Executive Directors of member organizations, with a request that they complete the Executive Director's survey and circulate the clinical staff survey to practitioners within their organization. In addition, a Microsoft Word file format version of the clinical staff survey was included in the email communication to be circulated to clinical staff for whom the web version presented a barrier. In order to increase the response rate, the letter and its attachments were re-circulated to Executive Directors on a weekly basis, beginning with the onset of the survey (June 21, 2004) to the last week (July 19, 2004).

Organizational Capacity for Research Utilization: Acquire, Assess, Apply, Adapt

One section of the survey conducted with Executive Directors and clinical staff working for CMHO member organizations involved members' capacity for research utilization. The four A's concept – Acquire, Assess, Apply, and Adapt was proposed by the Canadian Health Services Research Foundation (CHSRF, 2004) to capture the essential elements of an organization's capacity for knowledge/research utilization. According to the CHSRF, "many organizations would like to make better use of research but aren't sure where to start. Others feel they are doing well, but would also like to know if there are areas in which they could improve" (CHSRF, 2004).

[1] *For the full report, visit http://www.cmho.org/documents/KTandIofEBP.pdf*

Survey questions on this topic explored whether the organization can find the research evidence it needs (Acquire), can assess whether the research is reliable and of high quality, relevant and applicable (Assess), can adapt the information to suit its needs, client population, environment (Adapt); and whether the organization can implement and adopt the research information in their context (Apply). This framework was also used in an earlier research study with multiple stakeholders and sectors involved in Ontario's children's mental health system (Barwick, Boydell, & Omrin, 2002).

Organizational Readiness for Change

Another section of the survey addressed factors related to organizational readiness for change. The literature identifies major factors seemingly involved in transferring evidence-based practices (EBPs) to practitioners; however, understanding how to do it needs improvement (Simpson 2002). Simpson and colleagues have incorporated these major factors as elements in an integrated framework. This kind of infrastructure is particularly important for conducting systematic studies of efforts to disseminate feasible and effective treatment innovations.

Although change at both the personal and organizational levels is constant and universal, making it intentional and positive requires attention and planning. This is especially true at the organizational level, which incorporates the collective attitudes, actions, and relationships of a group of individuals. There is growing consensus that problems in transferring research to practice are more likely to be due to organizational factors (e.g., leadership attitudes, staff resources, organizational stress, regulatory financial pressures, management style, tolerance for change) than how materials are disseminated (e.g., packaging, training, roll-out).

Texas Christian University (TCU) Program Change Model

Simpson (2002) presents a process model of program change that describes the introduction of new knowledge into a program or organization. This process includes exposure to new knowledge (i.e., new practice), adoption of the practice or knowledge, implementation or exploratory use, and practice or routine use. If fully realized, the transfer process can then lead to program or organizational change and improvement. Each of these stages of transfer can be impacted by organizational attributes. Of particular importance are institutional and individual readiness (e.g., motivation and resources), and organizational dynamics, such as climate for change and staff attributes. The literature identifies several important factors that appear to influence the change process.

The TCU Organizational Readiness for Change (ORC) assessment includes 115 Likert-type items (5-point Likert response) on 18 content domains that take 10 minutes to complete. It has satisfactory reliability and validity with samples in the addictions field. The ORC focuses on the following dimensions and subscales: motivation for change (program needs, training needs, pressure for change), program resources (office/staffing, training, equipment), and organizational dynamics (staff—growth, efficacy, influence, adaptability, and orientation; and climate—mission, cohesion, autonomy, communications, stress, and change). The ORC was modified for purposes of this study by altering terminology to fit the CMH sector and through the elimination of several items in order to reduce completion time and improve response rate.

Provision of Evidence-Based Treatments. Respondents were also provided with a list of evidence-based interventions / programs and asked to identify those provided within their service setting.

Results

Respondent Characteristics. Three-quarters of 80 Executive Directors surveyed responded. They predominantly had backgrounds in social work, had over 16 years of clinical and managerial experience, and represented organizations providing a wide range of clinical services. Among an estimated population of 3,951 clinical staff, 12.2% responded. The majority had backgrounds in social work, had over 16 years experience, and were affiliated with a range of clinical services. Of these respondents, 65.7% were clinical staff, 16% were clinical managers also providing service, and 18.3% were clinical managers not providing service. Half the responding agencies had annual budgets in the $1 to $5 million range.

Linking to the Internet & to the Evidence Base. Among both Executive Directors and clinical staff, over 65% thought it was "likely" that their colleagues would turn to the Internet as a resource. About two-thirds of clinical staff and 77% of Executive Directors link with a college or university. Fewer than 40% of CMHAs have organizational access to a university or college library.

Utilization of Research Information. Both Executive Directors and clinical staff regard their organizations' ability to access, assess, adapt, and adopt research information as "somewhat well"—this provides a useful benchmark for future comparison, and suggests there is possibility for improvement.

Organizational Readiness for Change. Results indicated that clinical staff and their Executive Directors share many attitudes and perceptions about their readiness to deal with organizational change. There were two exceptions: clinical staff perceive higher pressure for change and Executive Directors sense greater need for program improvements. Curiously, pressure for change is not perceived as coming from agency boards or consumers, but rather from supervisors (62.5%), other staff (52.6%), funders (39%). Fewer than one-third of respondents from both groups perceive pressure for change from consumers, and fewer than one-quarter of Executive Directors perceive pressure for change from their board of directors. Such pressures need to increase to a point where they will be sufficient to motivate change

Use of Evidence-based Treatments. The 10 most commonly used EBTs were cognitive behavior therapy (65%), COPE (42.7%), wraparound (42.5%), behavioral parent training (41.2%), brief strategic family therapy (39.2%), narrative therapy (38.8%), "The Incredible Years" (36.4%), multisystemic therapy (35.9%), "Stop Now and Plan" (32.4%), and "Right from the Start" (29.3%). Among Executive Directors, half perceived their services/programs to be supported by research evidence "somewhat," while the majority of clinical staff were more optimistic (40% said "pretty much"). This information provides a useful benchmark against which to measure improvement.

Conclusion

A seemingly simple task of transferring a number of evidence-based practices to the field is anything but simple. It requires involvement from all stakeholders, good planning and resourcing, and a system that can develop a culture of evidence-based practice delivery and accountability. This will not be a quick and easy journey. Changing practice is a formidable task that occurs at a painstakingly slow pace often requiring changes in practice behavior, program restructuring, and reallocation of resources. This is especially difficult in an environment of tight budgets and competing priorities. It will require engaging policy and decision-makers, leaders, and practitioners; educating and supporting the absorption of new knowledge and ways of doing things; planning and patience. There will be opportunities and the challenge will be to find them and take them up. This research leaves some important questions unanswered and, thus, some future directions: who are the champions of change, what are the incentives for change, and how can we balance the importance of professional development with the onslaught of service need?

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Symposium
Challenges in Implementing Evidence-based Treatments in a State System of Care

Chair & Discussant
Martha Morrison Dore

Authors
Judith Meyers
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Joseph Woolston

Symposium Introduction

Martha Morrison Dore

According to a report from the National Advisory Mental Health Council (NIMH, 1999), transporting models of mental health treatment whose efficacy has been well established in rigorous clinical trials to application in daily practice is a top priority. Further, taking such models to scale, that is, implementing them throughout a public service system, is essential to insure their widespread application as well as to demonstrate their effectiveness in the "real world," outside the highly controlled environment of the laboratory. Further, without large-scale application of these models of mental health treatment, their effectiveness within a range of service settings, under a variety of conditions, and with various client populations cannot be determined.

Despite the recognized importance of large-scale implementation of evidence-based mental health treatments (EBTs), few studies have examined the process of implementing these models on a statewide basis. While there is an extensive and growing literature on *technology transfer* that looks at what it takes to move an EBT from the laboratory to the field, particularly in the substance abuse field, most of the previous work in this area has studied the experience of a single agency or organization in adapting a new treatment technology and focused on the organizational variables that facilitate or impede implementation. The processes involved in large-scale technological innovation carried out on a statewide basis are largely unexplored. Further, the work that has been done on technology transfer has focused primarily on adult services. There are few, if any, studies of this process with regard to EBTs in the children's mental health field.

Five years ago Connecticut's Department of Children and Families, which provides mental health, juvenile corrections, and child welfare services to children and families, moved to implement evidence-based, family-focused children's mental health services state-wide as part of the local systems of care. Three nationally recognized EBTs, as well as one promising practice model developed locally at the Yale Child Study Center, were selected for implementation. In this symposium, those involved in this effort examined the processes involved in implementing, developing, and adapting evidence-based treatments for children within a state system of care.

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Setting the Context for a State-Wide System of Care

Judith Meyers

Integrating research-proven psychosocial treatments in a newly developed community delivery system has been an important mechanism of child mental health reform in Connecticut. These efforts to enhance local systems of care by implementing evidence-based treatments (EBTs) are both the culmination and beginning of a process of systems change that began in 1975 when Connecticut established a consolidated state children's agency, the Department of Children and Families (DCF), which included child welfare, child mental health, and juvenile reform services.

One of the mandates of the newly formed agency was to create a children's mental health system that connected all Connecticut children with mental health needs to appropriate and timely care. However, unlike many other states, Connecticut did not have a history of investing in community-based mental health services for children and families, nor did it have the kind of strong family advocacy and support system that brought system of care changes in other states. Despite this, in 1997 legislation was passed that mandated DCF to adopt system of care principles and approaches to service delivery. By 1999, approximately 18 communities had developed local systems of care collaboratives, thereby laying the groundwork for the expansion of the system of care initiative by DCF.

By 1999, Connecticut was investing more than $200 million dollars a year in mental health services for children, primarily in residential treatment and acute psychiatric hospital care. These programs were administered by five separate state and local systems, resulting in a complex, fragmented system of care that was difficult for families to access and unresponsive to the mental health needs of children. A state budget crisis precipitated the state legislature to request a study of the state system of mental health care for children including service utilization and expenditures across state agencies. This report, which was prepared under the direction of the Child Health and Development Institute (CHDI), a not-for-profit policy, research and educational organization, was issued in 2000 and contained a series of recommendations to improve the quality and integration of children's mental health services state-wide. These recommendations included significant restructuring in the way services were organized, financed and delivered to build capacity at the local level, using community-based, family-centered, culturally competent, systemic approaches to treatment rather than a "bricks and mortar" approach that would increase residential capacity. Among recommendations were the following:

- Organize and develop a local care delivery system;
- Change the practices of providers which focused on out-of-home care of children and were individually rather than family-based;
- Use scarce resources in a more integrated, efficient fashion;
- Challenge communities to develop new community resources, both formal and informal; and,
- Involve families in care decisions and processes.

In mid-2000, in response to the CHDI report and a report from the Governor's Commission on Mental Health, the state's General Assembly charged the DCF and Department of Social Services (DSS) commissioners with developing a plan to reform the delivery and financing of children's mental health services in Connecticut. This plan, which was presented to the General Assembly in January 2001, outlined the initiative entitled Connecticut Community KidCare, which built on and expanded the existing community collaborative structure to develop local systems of mental health care for children and their families. The KidCare initiative, which began operation in July 2002, called for re-allocating state funds to develop a wider range of community level services, including intensive home-based mental health services. Since that time, over 21 million dollars have been allocated annually to fund local services such as mobile crisis teams, care coordination, intensive in-home services, as well as a state-wide family advocacy organization and KidCare Institutes designed by CHDI to bring state and provider agencies and family members together to learn how to work with a community-based, family-centered, strengths based approach.

Since its inception, CHDI has provided technical assistance, consultation, and facilitation in the design and development of the KidCare plan. For example, DCF contracted with CHDI to manage an evaluation of the initiative. The first year of this multi-year evaluation process focused on how the initiative was implemented and on establishing baseline measures to assess its impact on service delivery. The evaluation will address questions such as whether KidCare services are being implemented as planned, whether these services are child and family-centered, whether families are satisfied with the services they are receiving under the KidCare initiative, and whether system capacity and responsiveness are improving as intended.

In early 2001, CHDI sought foundation support to establish a Center for Effective Practice (CCEP) in children's mental health and substance abuse services. CCEP was designed as a collaborative endeavor among the major state child-serving agencies in Connecticut and its two premier academic institutions, Yale University and the University of Connecticut, to advance the level of children's mental health care through development, evaluation, training and dissemination of evidence-based prevention and treatment services. CCEP assumed responsibility for oversight of the implementation and expansion of one evidence based treatment (EBT), Multisystemic Therapy, statewide, as well as the identification and transportation of other EBTs into the KidCare system of care.

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Contextual and Organizational Factors Impacting Growth of Connecticut's MST Service System

Janet Williams

Researchers have begun to examine the contextual factors and variables (organizational and extra-organizational) that influence the transportability of evidence-based treatment (EBT) models from research to real world settings (Schoenwald & Hoagwood, 2001). During the past three years, Connecticut has implemented several EBT models within the children's public service system. During that time, one particular EBT, Multisystemic Therapy (MST), has been disseminated state-wide. Beginning with three MST teams piloted in two private, non-profit provider organizations, the MST service system in Connecticut now includes twenty-four MST teams hosted in eight agencies, funded by two large collaborating state child-serving systems. In addition, there is a MST support system within Connecticut established specifically to handle MST training, program management and quality assurance. Attention to developing this state infrastructure to support MST dissemination was a key factor in facilitating the adoption and expansion of this EBT model across the state. Important contextual and organizational factors in the implementation process are examined here because of their significance in Connecticut's success in transporting MST successfully from a controlled research setting to real world Connecticut practice.

The Connecticut Department of Children and Families (DCF) made the initial decision to bring MST to Connecticut in 2001, based upon several driving factors. First, was a pressing need to create services for serious juvenile offenders with mental health needs who were returning to the community from residential placements and training schools. Second, was the opportunity for DCF to utilize a federal funding stream (Juvenile Accountability Block Grants) for new program development awarded by the state Office of Policy and Management. Third, was the well-documented success with conduct disordered youth of the MST program and the offer from model developers for technical assistance with planning, training and quality assurance mechanisms.

Connecticut's interest in growing a community-based service system filled with empirically supported children's treatments led to DCF pilots of several comprehensive, family-based EBP models with research evidence demonstrating treatment efficacy. MST increasingly was being showcased nationally as being cost effective, performance-driven and enhanced by techniques for measuring the model adherence of program staff (Barnoski, 2004).

Connecticut began with three DCF-initiated MST pilots that eventually expanded to nine teams serving post-adjudicated youth under DCF guardianship. The clear rationale was the comparative cost advantages in setting up community-based MST programs versus the steadily rising costs of out-of-home treatments and institutions for treating juvenile delinquents with emotional and behavioral disorders. DCF established goals to move delinquent children within the juvenile justice and child welfare service systems into predominantly community-based services. This was consistent with the principles of the evolving statewide system of care, officially adopted by the state legislature in early 2001.

DCF developed an MST program request for proposals (RFP) with the assistance of MST Services, Inc., the technical assistance arm of MST dissemination, offering agencies a training and quality assurance package helpful in planning and adopting the MST model. The RFP included program development details such as referral criteria, staffing requirements and quality assurance mechanisms necessary to implement MST programs within agency settings. A competitive bid process among Connecticut non-profit community providers resulted in the selection of two private provider agencies with experience in serving youth with conduct disorders. Key participants in those selected agencies began working closely with DCF and MST Services, Inc. to develop a shared program vision and to define specific procedures for program outcomes and adherence monitoring.

One important aspect of DCF MST development was the careful assessment of potential program sites. Transportability studies (Schoenwald, Sheidow, Letourneau, & Liao, 2003) have identified certain organizational variables as influencing EBT implementation. Organizational variables that have been found to influence service delivery and model effectiveness are the size and organizational stability of an agency; the leadership style and commitment to EBP from agency administrators; the availability of qualified staff, and; the reputation and networking ability of agencies with the larger service system (Elliot & Mihalic, 2004).

The two initial MST host agencies were Connecticut-based but belonged to larger parent service organizations with multiple agency sites in Connecticut and in other states. For both host agencies, there was compatibility evident between the agency's organizational mission and MST program principles. Both agencies had strong and innovative leaders, successful reputations serving the target population, and managers with enthusiastic commitment to MST. There also was compatibility and agreement between the provider agency and DCF, who was responsible for both making the MST referrals and funding the agency's contracts. These factors contributed to ease of model implementation and program start-up for new MST host agencies.

Other organizational factors have been identified as influencing staff adherence to the specific EBT model and the achievement of desirable treatment outcomes (Henggeler, Schoenwald, Liao, Letourneau & Edwards, 2002). In the MST host agencies, there were correlations between these variables that were probably mediated by organizational factors such as work climate, job satisfaction, opportunity for rewards and organizational advancement. These positive agency characteristics contributed to workforce stability within MST programs, staff satisfaction and the development of theoretical and clinical skills necessary for effective MST program implementation.

Some contextual variables presented barriers to effective MST model dissemination. Access to funding streams to support MST model implementation and expansion in Connecticut was challenging. State and federal funding streams were generally categorical, time-limited, and difficult to coordinate across service systems and often limited in the flexibility needed to support community-based program development. This was particularly evident in piloting MST programs for multi-problem children and families that appealed to the needs of several state agencies serving that target population (e.g., Education, Juvenile Justice, Mental Health, etc.). Additional capacity for these state services agencies to contribute to the development, implementation and sustainability of a state MST system would have facilitated financing infrastructure building and program dissemination of MST. It was also challenging to build EBT services within a state system where service dollars do not able follow the child, thus creating financial disincentives for EBT adoption. Higher reimbursement rates for institutionalization

and restrictive treatment services worked against MST dissemination efforts, despite the opportunity to achieve cost savings, earlier treatment intervention and superior service outcomes. In spite of strong state commitment to empirically supported, community-based children's services, state and federal funding mechanisms and service disincentives sometimes worked against the MST adoption efforts.

Workforce development was another area that proved difficult and was ultimately a limiting factor in the rate of state-wide MST service dissemination. In spite of competitive salaries and attractive work environments, there were not sufficient numbers of trained therapists or supervisors to keep pace with the demands of new program development and usual rates of staff turnover. Efforts were made to enlist the help of local universities and training institutions; out-of-state recruitment efforts and creative hiring incentives were necessary to recruit adequate staff numbers to open new programs without adversely impacting existing MST programs. Resources designated for continuous staff training and professional development were helpful in supporting the demands created by the rapid growth and development of an MST service system within Connecticut.

The variety of conditions and processes to be described herein reflect the range of contextual variables and organizational factors that come into play when adopting an established and well researched treatment model within a state public service system. Completing four stages of implementation—including the preparation, planning, development and expanding of MST pilots in Connecticut—provided the experience and lessons necessary to support a statewide implementation process. The mechanics of successful state adoption of MST was only a first leg of a technology transfer process. The subsequent legs of evaluating the effectiveness of the implementation and resulting service outcomes now lie ahead.

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Transforming IICAPS into an Evidence-Based Practice (EBP)

Joseph Woolston

Most evidence-based treatments have been developed under nearly ideal conditions that support careful selection and training of intervention staff and allow for the considered selection of patients to eliminate the possibility of confounding disorders. In addition, these treatments are generally guided by a treatment manual, have well-developed adherence and treatment effect measures and technically sophisticated mechanisms for data management. Under these conditions, new treatments have maximal opportunities to demonstrate efficacy or effectiveness and prepare for their transport into the messy real world of community based clinical care. Such was not the case with the Intensive In-Home Child and Adolescent Psychiatric Service (IICAPS).

The IICAPS was developed at Yale in 1996 to address the gridlock resulting from the constantly escalating numbers of children presenting at psychiatric hospitals and emergency rooms with serious psychiatric disturbances and the problems of shrinking access to and availability of treatment resources (Woolson, 2003). Although originally implemented in one of Connecticut's larger cities and funded by managed Medicaid, within six years of its initial implementation, IICAPS was selected for statewide replication by the Connecticut Department of Children and Families (DCF) as one of several home-based models of behavioral health treatment. In a one-year period, IICAPS was replicated in fifteen different behavioral health sites across the state as part of KidCare, an innovative public mental health initiative. Almost none of the essential elements for establishing an evidence based treatment (EBT) described above were in place. This model's effectiveness would have to be established in the real world of day-to-day practice in a wide range of situations. This summary describes how the developers of IICAPS put mechanisms in place to begin this process.

IICAPS is a structured, manualized intervention informed by theories derived from developmental psychopathology, systems change theory and transactional risk models. IICAPS services are provided by a two-member team consisting of a master's level clinician and a bachelor's level mental health counselor. This team provides a continuum of psychiatric and other comprehensive services to the child and family in their own home and community. All teams are supervised regularly by a child psychiatrist, who also serves as IICAPS Medical Director and presides at weekly rounds, and by a senior clinician. Children appropriate for IICAPS are those who are in transition between psychiatric hospital and home, who can be diverted from psychiatric hospitalization following a visit to the Emergency Department, or whose needs are not being met through traditional outpatient care. IICAPS services include: (1) direct psychiatric assessment and treatment of youth with serious emotional disturbances; (2) intensive, comprehensive assessment and intervention for all household members as needed; and (3) availability of 24/7 mobile crisis intervention.

Although seen as a promising practice, the rapid proliferation of IICAPS programs in Connecticut presented a significant challenge to the developers' interest in refining the model and assessing its effectiveness. Serious questions arose about the ways in which fidelity to the model could be insured and clinical effectiveness could be sustained when there was considerable variance in the skill level of the clinicians providing the service and in their understanding of the model, and when direct supervision by IICAPS' developers was not always possible.

Phase-specific tools developed and refined in the field as mechanisms for insuring treatment fidelity and adherence to the program's aims. These IICAPS tools are used to create tasks that are shared by the family and treatment team, resulting in specific documents, action steps and treatment phases that lead to the specific outcomes desired by the child and family. The multiple purposes served by IICAPS tools as simultaneous structures for engagement, assessment, treatment, supervision and quality assurance are unique to the model. Three distinct treatment phases of Assessment and Engagement, Work and Action, and Ending and Wrap-Up, and four domains of intervention—Child, Family, School and Environment and other Systems—are defined by the use of these tools. These tools and others such as a three

generation Genogram, Main Problem identification, an Eco-domain Map, a pictogram representing the child's strengths and vulnerabilities, and goal attainment scaling provide the programmatic infrastructure that forms the basis for measurement of fidelity to the model. This infrastructure is further supported by training, case conferencing, supervision and consultation.

With this structure in place, field-based studies of programmatic effectiveness in multiple sites and with widely varying populations are able to move forward to inform further model development as well as practice in the field. Next steps in the establishment of IICAPS as an EBT include: (1) development of, and measurement of fidelity to a treatment manual; (2) assessment of the relationship between adherence to the IICAPS model and treatment outcomes for children and their families; (3) development of a web-based data management system accessible by clinicians and supervisors as well as the model's developers; and (4) generating additional funding for further evaluation of the model's effectiveness across problems and populations.

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Symposium Discussion: Moving into the Future

Martha Morrison Dore

Lessons learned in Connecticut's efforts to implement evidence-based treatments (EBTs) statewide include the need for increased interagency collaboration between those advocating for adoption of EBTs in the public and private sectors and the community-based clinicians who must implement these models. The experiences in Connecticut illustrate both problems and progress in taking EBTs to scale. One ongoing issue in the state has been the absence of an integrated information management system that can aid in insuring treatment fidelity, track treatment progress, and capture the relationship between implementation of EBTs and treatment outcomes. In addition to the construction of such a data management system, the need for technical support and access is ever present. Setting a standard of empirical inquiry for all service providers with the expectation that service delivery will be evaluated and subjected to continued improvement is essential to supporting a statewide commitment to evidence-based treatments. In addition, the implementation of a learning organization model, which establishes a collaborative network across agencies and positions, aims to open up dialogue among researchers, clinicians, managers, consumers and other key stakeholders regarding best practices in children's mental health services. Facilitating such cross-agency collaborations in empirically-based knowledge development can help support the public agencies' need for accountability to legislators and other audiences, and respond in a timely fashion to cross-cutting workforce training and development issues and needs which are key to treatment fidelity in implementing EBTs.

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Symposium
Enhancing and Adapting Treatment Foster Care

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Symposium Introduction

Elizabeth M. Z. Farmer

Treatment Foster Care (TFC) is considered to be an evidence-based treatment for youth. This symposium discusses research findings and research focused on existing TFC programs, factors related to positive outcomes, and an ongoing research project to improve "real world" practice in TFC. Background from Chamberlain's evidence-based model of TFC and from our observational study of TFC in real world practice provide a backdrop for a new randomized trial of "enhanced real world" TFC, "Together Facing the Challenge." This symposium highlights findings, provides rationale and details on modifications of evidence-based TFC, and discusses research challenges and opportunities in this type of work.

What We Learned and Where It Led Us

Elizabeth M. Z. Farmer

Introduction

Treatment Foster Care (TFC) is one of few community-based treatment options for youth that is viewed as evidence based. Available evidence, though, comes almost exclusively from a small set of studies conducted by Chamberlain and colleagues on TFC delivered via the Oregon Social Learning Center (OLSC; Chamberlain, 1994, 2002). Little is known about implementation or outcomes of TFC in other settings. From 1998-2002, our group conducted a National Institute of Mental Health (NIMH)-funded naturalistic study of TFC in North Carolina to examine how TFC is used within systems of care, to examine variation in implementation of TFC, and to determine whether variations in implementation were associated with variations in outcomes for youth (Farmer, Burns, Dubs, & Thompson, 2002; Farmer, Wagner, Burns, & Richards, 2003).

This work suggested substantial variation in implementation and significant deviations from established standards of care, but also identifiable factors related to improved outcomes for youth. Hence, we used these findings, in conjunction with the framework provided by Chamberlain's evidence-based model, to develop an enhanced version of TFC to use in existing TFC agencies in an attempt to improve the overall quality of TFC and to address the needs of agencies, families, and youth. The resulting model, called "Together Facing the Challenge," is now being tested in an NIMH-funded randomized trial. The current study examines whether enhanced TFC, Together Facing the Challenge, results in better practice and outcomes than "usual practice" TFC.

Method

The initial study, Therapeutic Foster Care in a System of Care, was conducted between 1998 and 2002 throughout North Carolina. Preliminary findings from this study have previously been summarized in these *Proceedings* (Farmer, Allred, Breland-Noble, Elbogen, & Burns, 2004). Quality of implementation of TFC was assessed in two ways: (1) the degree of conformity to the Foster Family-based Treatment Association's Standards of Care for TFC (FFTA, 1995), and (2) the conformity to elements of Chamberlain's evidence-based model (Chamberlain & Mihalic, 1998; Chamberlain,

2002). The study included 183 youth and their treatment foster families served by 46 TFC programs. Data were collected at study entry, every four months, at discharge, and at six, 12, and 18 months post-discharge.

Findings from this study were used to develop the model and methodology for the ongoing NIMH-funded randomized trial of enhanced TFC. In the current study, 18 of the original agencies are participating: nine in the intervention condition, and nine as control sites (150 families in each condition). Training and consultation are provided to intervention sites for TFC supervisors, treatment parents, and clinicians. Data are collected at baseline, and every two months for two years.

Results and Discussion

Results from the initial study showed tremendous variation in implementation of TFC (Farmer, Burns, Dubs, & Thompson, 2002). Overall conformity to the FFTA Standards of Care was not related to outcomes. However, better conformity on the Program Standards subscale of the FFTA standards was related to several process variables that are core elements in Chamberlain's evidence-based model of TFC. TFC agencies with higher conformity on the Program Standards portion of the FFTA Standards showed more frequent meetings between treatment parents and supervisors ($p < .05$), better supervision of youth ($p < .01$), and more consistent consequences for youths' problematic behaviors ($p < .05$). All of these are core elements or mediators related to better outcomes in the evidence-based model.

In addition, we assessed correspondence between usual practice TFC and Chamberlain's evidence-based model. As noted above, evidence-based TFC is based upon a growing body of work by Chamberlain and colleagues at the OSLC (e.g., Chamberlain, 2002, 2003; Chamberlain, Ray, & Moore, 1996; Smith, Stormshak, Chamberlain, & Bridges-Whaley, 2001). In addition to work conducted by Chamberlain and colleagues, TFC is built upon decades of work on social learning and the development/prevention/treatment of antisocial behaviors. TFC at OSLC is an integrated, coherent, well-staffed program. It is clearly an ideal type of TFC. As with other community-based comprehensive services, it uses its resources to provide individualized services to youth and support to treatment parents. Most of the services are provided by in-house providers, hired and supervised by the TFC program or OSLC. Evidence-based TFC is based firmly in the tenets and practices of social learning, with a strong emphasis on proactive and positive approaches (this is operationalized, concretely, in consistent use of a points and levels system within treatment homes). It also provides very consistent supervision and support to treatment parents (e.g., daily contact, weekly group meetings).

Data from the initial study suggested that usual practice TFC was quite different from Chamberlain's evidence-based model. For example, OSLC provides brief didactic pre-service training for new treatment parents and then includes extensive in-home support and training once a youth is placed with a family. In contrast, most of the usual practice TFC agencies provided longer didactic pre-service training (97% required some pre-service training, and 71% required at least 30 hours of such training), however, only 21% of agencies provided at least 24 hours of in-service training annually. While the OSLC treatment parents had almost daily contact with supervisors or other program staff, this was virtually unheard of in our usual practice sample, and only 29% of the treatment parents reported meeting weekly with their supervisor. A points and levels system, a standard part of OSLC TFC, was being used in 18% of our sample of TFC homes.

As in the OSLC model, however, our data show that improved outcomes for youth were related to better implementation of some of these elements. For example, youth outcomes were more positive in homes with closer supervision of the youth ($p < .10$), increased training for treatment parents ($p < .05$), and increased contact between treatment parents and their supervisors ($p < .05$).

However, interviews with agency directors suggested elements of evidence-based TFC that would be very difficult to replicate in our sample. For example, a cadre of in-house therapists, skill trainers, and close relationships with other agencies (e.g., schools, juvenile justice) were not available or feasible in

our agencies. There was also a strong ideological concern about comprehensive use of points and levels systems within TFC homes (agency directors repeatedly said that this was "something that's done in group homes or residential treatment, not something people should do in their homes."). Therefore, rather than disseminating the entire package of OSLC TFC, we focused on strengthening two elements of evidence-based TFC that were weak in existing TFC agencies but could be reasonably improved. The focal elements were: (1) improved supervision of treatment parents, and (2) improved training and supervision of treatment parents to implement effective (and, where possible, proactive) behavioral strategies for youths' problem behaviors.

In addition to this lack of correspondence between usual practice TFC and Chamberlain's evidence-based model, findings also suggested some significant differences in the mission and nature of usual practice TFC. Of primary importance was length of stay. Evidence-based TFC is designed to be a relatively short-term treatment (i.e., six to nine months). In our usual practice sites, in contrast, TFC was often a relatively long-term placement for youth—nearly half of the sample remained in care for longer than two years (Farmer, Wagner, Burns, & Richards, 2003). This shift in length of treatment provided opportunities and needs that are not focal in the evidence-based version of TFC. Two of these appeared to be particularly central: treatment for prior trauma (particularly sexual abuse), and activities related to preparation for adulthood.

Therefore, these findings were used to build an enhanced approach to TFC for community-based TFC agencies. This enhanced model, Together Facing the Challenge, includes elements from three sources: (a) elements that are core to evidence-based TFC and were also evident in the majority of existing usual practice TFC programs, (b) elements from the evidence-based model that appeared particularly key for producing outcomes (and that were viewed as feasible in usual practice), and (c) elements not currently included in evidence-based TFC or usual practice (i.e., apparent gaps). Table 1 provides an overview of these components. The shaded area indicates components that are the focus of implementation and training for the ongoing intervention study. From Chamberlain's evidence-based TFC, we have incorporated increased supervision/support for treatment parents and increased training/support for treatment parents to implement proactive behavioral strategies (see Murray's summary below). In addition, to fill apparent gaps in both evidence-based TFC and usual practice, we have added an emphasis on trauma-focused treatment and preparation for adulthood (see Dorsey's summary below).

Table 1
Development of Together Facing the Challenge

	Evidence-based model	*Found in "usual practice"*	*Together Facing the Challenge*
Service Coordination/Case Management	Yes	Yes	Yes
Treatment Parents as key providers/change agents	Yes	Yes	Yes
Team approach to treatment	Yes	Yes	Yes
Respite	Yes	Yes	Yes
Work with youth's family	Yes	Yes	Yes
Reduce association with deviant peers	Yes	Yes	Yes
Intensive Supervision/Support	Yes	No	Yes
Proactive approach to behavior problems	Yes	No	Yes
Preparing for transition to adulthood	Not systematic	No	Yes
Addressing previous trauma and sequelae	Not systematic	No	Yes

Conclusion

TFC is an evidence-based treatment for youth. Current evidence comes from a limited number of randomized trials conducted by Chamberlain and colleagues in Oregon. Current efforts in North Carolina build from this evidence-based approach to develop and test an enhanced model of TFC aimed at improving practice in usual care TFC programs. This enhanced model, Together Facing the Challenge, builds from existing TFC programs, incorporates elements of evidence-based TFC, and extends TFC to fill gaps in usual care TFC. This enhanced model is currently being implemented and tested, via randomized trial.

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Together Facing the Challenge: Adapting Evidence-based TFC

Maureen Murray

Introduction

Together Facing the Challenge is a model of care that incorporates many of the elements of evidence-based Treatment Foster Care (TFC). This model has included additional components from other well established resources. This summary highlights the approach for modifying the TFC-specific components of evidence-based TFC into "real world" practice.

Method

Our intervention involves the following components: in-person training with TFC supervisors; in-person training with TFC parents; in-person training with clinicians working with TFC kids; and follow-up consultation, training, and support. In this summary we describe the interventions aimed at the treatment parents and their supervisors. The implementation is guided by a desire to change practice in the participating agencies. Therefore, training with supervisors is used as an opportunity to engage these individuals in the TFC approach and to prepare them to work intensively with their treatment families. The initial two-day training leads them through an accelerated version of the parent management training for the treatment parents and lays the foundation for our partnership with them. One of our goals is to provide supervisors with the needed information and training that will enable them to co-facilitate the upcoming parent sessions with our staff.

The parent training consists of a standardized six-week curriculum that addresses core concepts of the Oregon Social Learning Center approach to behavior management. This training is conducted one evening a week for 2.5 hours and includes a meal. Although adaptations to this structure have been made based on agency request and/or need, we have found that the training is most effective when administered over the six-week period. The weekly interval offers parents an ideal opportunity to practice the skills being presented in the training and to obtain feedback from the leaders about specific problems or issues faced while trying out some of the parenting strategies during the week. We also encourage supervisors to follow-up with their families between sessions to prompt, encourage, and assist families as they practice these newly acquired parenting skills.

Follow-up consultation with supervisors begins when the parent training ends, and continues for one year. The goal of this component is to teach, support, and coach supervisors as they work with their assigned families. The consultation consists of bi-weekly or monthly in-person or phone meetings with each agency. These meetings are generally an hour in length and the agenda is tailored to best meet the individual needs of each group. Some of the topics covered during the sessions include: development of a structured form for supervisors to use during individual meetings with treatment parents; dealing with challenging parents; problem solving difficult child behaviors; developing action plans; using a supervisor worksheet and guide; and planning for a follow-up booster session with parents. In addition, supervisors are encouraged to e-mail or call between scheduled meetings for consultation or support as needed.

A key to our success thus far in implementing the enhanced model of TCF within real world TFC agencies is the amount of time and effort we put forth at the start. The "up front" time spent building that foundation has been well worth the effort. We have learned the importance of providing support at both the direct staff (supervisor) and administrative levels. Although we had the advantage of having a previously established relationship with these agencies, maintaining those ties continues to be a very important variable in effectively implementing our enhanced model of TFC.

In order to move forward, we needed to overcome barriers confronted along the way. Agency staff initially voiced concern about getting parents to attend the trainings. Although this issue has come up across agencies, we have consistently had high turnout over the course of the six-week parent training. Being pro-active and identifying potential problems upfront (child care needs, food, reinforcements,

location), has helped us to avoid some of these problems that agencies have previously faced. Once we completed the initial trainings for treatment parents and their supervisors, we next confronted the challenge of figuring out how to be most effective and efficient in working to reach our ultimate goal of changing practice in the participating agencies. We are currently in this phase of our implementation across sites and are actively working toward "bringing it all together" by collaborating with agency staff and treatment parents in an effort to bring about change in practice.

Results and Discussion

It has been exciting to watch agency staff and treatment parents incorporate various components of our enhanced model of care into their usual practice. Some examples of this include: videotaping training sessions for future use; using a bi-weekly form (one of our materials) to replace existing required documentation; establishing or re-establishing parent groups; and incorporating our training materials into their on-going training packet.

We have currently completed initial training for agency supervisors and treatment foster care parents at five of the nine agency sites that comprise the intervention condition of our study. We have trained a total of 60 agency supervisors and 250 treatment foster parents across the five sites. The number of supervisors trained per site ranged from 5 to 20 with treatment parent groups ranging from 15 to 57.

We are presently working in a collaborative effort in follow-up consultation with each of the agencies that have completed the initial (Phase 1) component of the enhanced model of care project. The follow-up component (Phase 2) consists of bi-weekly or monthly in-person and/or phone contacts with each site. This formal consultation continues over a 12-month period. In addition, booster sessions for treatment parents are conducted at 6 months and one year post initial training.

As previously mentioned, the initial stage of establishing and building relationships with staff at individual agency sites is critical to providing the foundation for the ongoing collaboration which will follow. This level of intervention within a real world setting requires a significant level of time, energy, and commitment on the part of each staff member. If staff are not invested in the project and do not think it will truly benefit them, the intervention will likely fail. Our goal is to train the supervisors, then offer them continuing support through the consultation model in an effort to sustain the intervention once the study has come to an end. This train-the-trainer model is viewed as a viable method of sustaining the training over time, and incorporating it into "practice as usual."

The feedback we have received from the supervisors has been very positive across sites. Many of the comments pertained to the usefulness of the training materials, and the supervisors reported that they could readily apply the specific parenting skills and techniques presented during the training with families on their caseload. One supervisor, reflecting back over the training, stated: "It's like we now have a common language or common ground in which to talk about parenting strategies during our individual meetings with treatment parents." Supervisors also mentioned that they enjoyed the interactive style of the presenters and the hands-on activities presented throughout the training.

Although treatment parents initially balked about the length and duration of the trainings, the vast majority attended each session. After an initial meeting, one treatment parent said to me, "You know if I didn't get anything out of coming here this evening I wouldn't be back. See you next week." Being able to engage the treatment parents in the training and making it meaningful to them was an essential ingredient in having such a high rate of attendance throughout the six-week period. Across sites, individual agencies required that their treatment parents attend the training. Agency staff were not convinced that parents would show up for the training. Many had previously experienced a significant degree of difficulty in this area. Some incentives that we provided and found to be effective included earning required training hours, nightly raffles, and providing dinner and child care. Some agencies offered additional incentives including money, or a larger raffle such as a weekend getaway or $100 gift certificate. The catch was that you needed to be in attendance for all six sessions to qualify for participation in the drawing.

Evaluations from the parent training were very positive from both the seasoned treatment foster parents (e.g., "Even after 13 years of experience it's helpful to hear new/different views in caring for kids in care."), as well as from those new to the field (e.g., "This training has helped prepare me for bringing a child into my care."). A few of the comments pertained to a desire for more advanced training, training in specific areas such as sexual abuse, dealing with reclusive kids, working with children with mental disabilities, and condensing the training into fewer sessions.

At each phase of our intervention, we make every effort to work collaboratively with the staff and encourage them to take on more of a co-facilitator role as we initiate training with their treatment families. By doing so we are laying the foundation for the on-going consultation (Phase 2) component of the intervention.

Thus far we have found that follow-up work with agency staff is necessary in order to facilitate the process of putting the enhanced model of care into practice as usual. Regularly scheduled in-person meetings and phone calls help to prevent potential problems from becoming insurmountable barriers to implementation. The consultation offers a forum for on-going dialogue with the supervisors of the treatment parents and provides them a vehicle to process issues and concerns they experience as they try to assist their treatment families in implementing the various skills and techniques presented in the parent training.

New Additions to "Together Facing the Challenge"

Shannon Dorsey

Introduction

Evidence for the effectiveness of Treatment Foster Care (TFC) comes almost exclusively from a small set of studies conducted by Chamberlain and colleagues on TFC delivered via the Oregon Social Learning Center (OSLC; Chamberlain, 1990, 1994). Our initial National Institute of Mental Health (NIMH)-funded naturalistic study of TFC in North Carolina has suggested that TFC, as widely practiced, differs significantly from the OSLC-delivered model (Farmer, Wagner, Burns, & Richards, 2003). One important difference involves length of stay: The OSLC version of TFC is designed to be a short-term intervention of approximately six to nine months (Chamberlain, 1990, 1994). In contrast, youth in North Carolina remained in TFC for significantly longer periods of time—over half of the youth were in care for at least two years. In addition to longer lengths of stay, TFC also appeared to be the least restrictive placement for a substantial proportion of youth who were no longer in the custody of their parents and did not appear to have more permanent placement options. Many youth were reaching the age of 18 while in TFC.

Based on these findings of significant differences between the evidence-based TFC and "real world" TFC, it appeared that as initial behavioral difficulties were addressed, additional treatment needs became increasingly evident. Two particular areas were identified by key stakeholders: access to evidence-based trauma treatment for youth and assistance planning for transition to adulthood. However, neither of these areas, due to OSLC's explicit focus on short-term treatment, had been systematically integrated into the evidence-based model of TFC.

Therefore, in an attempt to improve outcomes for youth in real world TFC in North Carolina, we are currently testing an enhanced model for real world TFC called "Together Facing the Challenge" in an NIMH-funded randomized trial. This enhanced model (in addition to providing increased training for TFC agency staff and parents—a crucial element of the evidence-based version), explicitly targets both of the additional identified treatment needs for youth (i.e., access to evidence-based trauma treatment and assistance in planning transition to adulthood). This summary discusses these additions, the gaps they address, and the challenges in their incorporation.

Implementation Issues

Data and information come from interviews with agency representatives and treatment parents in the state of North Carolina, and from our experience with developing and implementing these additional treatments. The newly incorporated elements address prior trauma, particularly sexual abuse, and preparation for adulthood. The evidence-based trauma treatment component entails providing training and consultation for clinicians serving TFC youth in Trauma-focused Cognitive Behavioral Therapy (Deblinger & Heflin, 1996). The preparation for adulthood component also involves providing training and consultation to TFC staff and parents and is based on the work of Clark and colleagues (Clark, Deschenes, & Jones, 2000).

As previously mentioned, data from the initial study of TFC in North Carolina suggested that TFC was often a relatively long-term placement for youth; nearly half of the youth in that sample remained in TFC for longer than two years (Farmer et al., 2003). This is in marked contrast to the evidence-based model, for which six to nine months is the expected length of stay. Because externalizing behavior problems continue to be a clinical focus throughout the course of care, Together Facing the Challenge maintains and strengthens this focus through training and consultation with supervisors and training with treatment parents on effective behavior management strategies.

However, in addition to the behavioral focus, data from interviews with treatment parents show that as youth remained in care, the types of concerns shifted to include prior trauma that had gone untreated (particularly sexual abuse). Furthermore, agency staff and parents reported that there were not knowledgeable clinicians in their communities trained to address such issues. Exposure to trauma was prevalent in TFC youth: Nearly three-quarters of youth in the initial North Carolina TFC sample had experienced serious physical abuse, and half had experienced sexual abuse. Rates of abuse were somewhat higher among youth who remained in TFC for extended periods (more than nine months) than for youth who were discharged quickly.

In addition, as youth remained in care, treatment parents and agencies raised concerns about their level of preparedness for adulthood. Approximately 28% of our initial sample left TFC by "aging out" (i.e., by turning 18) and many of the TFC youth were in care during their adolescent years. Treatment parents and agency representatives reported that, overall, there were few resources in their communities to provide effective linkages for such youth and that treatment teams tended to focus on short-term and immediate needs/goals rather than on longer-term planning.

Together Facing the Challenge, therefore, incorporates specific elements in an attempt to fill these gaps. Trauma-focused Cognitive Behavioral Therapy training and follow-up consultation is provided to therapists who are working with youth in the TFC agencies randomized to the intervention condition. These therapists include a mixture of clinicians in public and private practices, the majority of whom work via contract with the TFC agencies (a marked difference from the in-house therapists in evidence-based TFC). TFC intervention agencies identified clinicians who serve their youth, and these clinicians were then invited to participate in the training. Specifically, this component involves providing an initial two-day training with clinicians, structured follow-up consultation on a bi-weekly basis for six months, once a month consultation for three additional months, and ongoing as-needed consultation. Challenges to implementing this component of the enhanced model include ensuring appropriate selection of clinicians, maintaining clinician participation over the course of the consultation period, and obtaining measures of treatment fidelity.

To begin filling the gap on preparation for adulthood, Together Facing the Challenge incorporates elements from Clark's Transition to Independence Process (TIP; Clark, Deschenes, & Jones, 2000) program. Elements of this approach have been incorporated into training for TFC supervisors and parents and in ongoing consultation/supervision with supervisors. Unlike the other elements—supervisor training, treatment parent training, clinician training—that are fairly self-contained within TFC, implementation of this transition piece requires more substantial involvement and linkages with the

broader service system. As such, incorporation of TIP into Together Facing the Challenge encouraged parents and supervisors to talk regularly with youth about their goals and how to work toward them, as well as how to identify and utilize available resources in the existing system. Challenges encountered with implementing this component include limited resources within communities, as well as the ability of parents and supervisors to deal with the competing treatment goal demands of current and pressing treatment needs (e.g., behavioral problems) along with needs that involve looking to the future to plan for successful transitions.

In conclusion, it is hoped that the addition of these elements will enhance the ability of intervention agencies to effectively address these gaps in service provision to improve outcomes for TFC youth.

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Symposium Discussion

Elizabeth M. Z. Farmer & Barbara J. Burns

Ongoing research on "Together Facing the Challenge" adopts a somewhat unusual approach to disseminating and testing evidence-based treatments. Rather than adopting a straight-forward dissemination model, it incorporated information from prior observational research to identify current practice, promising factors, and gaps. This information was then used, in conjunction with an evidence-based model, to develop an adapted version of TFC for testing in a randomized effectiveness trial. Overall, this set of presentations has pointed to both the nonlinear dimensions of advancing the evidence base as well as the complexities involved when conducting intervention studies in usual care practice.

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Symposium
Implementing Evidence-based Practices in Publicly-funded Clinics

Chair
Teresa L. Kramer

Authors
J. Randy Koch et al.
Gregory A. Aarons
Teresa L. Kramer et al.
Phyllis C. Panzano et al.

Symposium Introduction

Teresa L. Kramer

The mental health care system is in need of substantial retooling in order to offer evidence-based practices (EBPs) for youth and families. Organizational, provider, and consumer factors influence successful implementation of EBPs, yet there are few conceptual models to guide this work or innovative methods to systematically assess the initiation and process of change at each level. Presentations in this symposium highlighted emerging areas in the implementation of EBPs in public sector programs. It is anticipated that a multiple case study approach in which the process of EBP adoption and relevant variables are compared will contribute to theory building for EBP diffusion.

Initial Assessment of Adoption Barriers to EBP Treatment for Adolescents with Co-occurring Psychiatric and Substance Use Disorders

J. Randy Koch, Teresa L. Kramer, Robert Cohen, & Shirley G. Ricks

Introduction

The need, as well as the challenges, associated with translating research into practice in mental health and substance abuse treatment has been well documented (Institute of Medicine, 1998). Obstacles to bridging this gap include a paucity of applicable research results in some areas, administrative and fiscal disincentives, cultural differences between researchers and practitioners, and insufficient infrastructure at the local level to support effective translation and application (Marinelli-Casey, Domier & Rawson, 2002).

In this context, the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services (VDMHMRSAS) and Virginia Commonwealth University (VCU) have formed a partnership to initiate research on the adoption of EBPs within the public behavioral healthcare system. An EBP Steering Committee, comprised of representatives from VDMHMRSAS, VCU, community services boards, other public and private behavioral health care providers, and advocates and consumers, has been established to guide the development and implementation of this effort. Although the Steering Committee will ultimately address the dissemination of EBPs for all populations served by the VDMHMRSAS, it has chosen as its initial focus adolescents with co-occurring psychiatric and substance use disorders (SUDs). This population was selected based on previous research documenting high rates of co-occurring disorders among adolescent treatment populations (e.g., Kramer, Robbins, Phillips, Miller & Burns, 2003; Wise, Cuffe & Fischer, 2001) and the relative lack of focus on this population both within the state and nationally when compared to adults. Thus, there is a great need and an opportunity to dramatically improve services to a highly vulnerable group of youth, while providing a model for improving services to other populations. In order to gather empirical data to guide the development of an effective dissemination strategy, the Steering Committee conducted a survey of community behavioral health agencies on current services and attitudes about EBPs for adolescents with co-occurring mental health and SUDs.

Methods

A survey was mailed to each of the 40 agencies responsible for the delivery of public behavioral health care services in Virginia (i.e., community services boards; CSB) to collect information about the extent and nature of co-occurring disorders among adolescents served, the types of treatment offered, current levels of EBP adoption, screening and assessment practices for detecting co-occurring disorders, and perceived barriers to EBP adoption. Thirty-eight of the 40 CSBs responded to the survey.

Results

Results indicate that 12.4% of the adolescents (ages 13 through 17) served in FY 2004 (N = 16,152) had both a psychiatric and substance use diagnosis. The CSBs reported that an additional 15.0% of the adolescents served had a psychiatric diagnosis and a substance use "problem" (i.e., substance use that did not meet criteria for a formal substance abuse or dependence diagnosis). However, 27 of the 38 reporting CSBs do not capture data on the existence of substance use problems and could only estimate the number of adolescents. Although 36 of 38 CSBs reported that they routinely screen for an SUD among youth referred for a mental health problem, only 16 (42%) reported that they use a formal screening instrument.

The CSBs reported they provide a wide range of treatments for youth with co-occurring disorders. EBP rates for this population were cognitive behavioral therapy (CBT; 94.7%), motivational enhancement therapy (MET; 73.7%) and multisystemic therapy (MST; 31.6%). However, it is possible each of these services may have been provided by only one therapist at the CSB, and therefore not available to the majority of clients who may have benefited from them.

Many CSBs had attitudes supportive of providing CBT, MET and MST and planned to expand their use. For example, 43.2% had sponsored or conducted training in MET during the past year (28.9% for CBT and 10.8% for MST), and 97.3% were *very interested* or *somewhat interested* in initiating or expanding the use of CBT (83.8% for MET and 75.7% for MST). Over half (51.4%) of CSBs reported that the likelihood that they will expand the use of MET is *very good* or *good*, while the comparable figures for CBT and MST were 36.1% and 24.3%, respectively. In addition, the CSBs have relatively positive attitudes about these three EBPs, with 97.3% reporting that they have *very positive* or *somewhat positive* attitudes toward CBT, 86.5 toward MET and 73.0% toward MST.

While the CSBs appear to have positive perceptions of the three EBPs, they also identified several obstacles to their use. Results to an open-ended survey question about the three most significant obstacles to implementing CBT, MET and MST are presented in Table 1. There was a generally consistent pattern in obstacles identified for each EBP, with staff time (including staff time available for training) identified as the most significant barrier for CBT, MET and MST. The most notable difference across the models is the perceived cost/lack of sufficient resources for implementing MST compared to the other models.

Table 1
Frequency with which Specific Factors Were Identified as Obstacles to the Implementation of EBPs

Obstacle	*CBT (%)*	*MET (%)*	*MST (%)*	*Total*
Staff time (including time for training)	21 (55)	9 (24)	13 (34)	43
Cost of training/lack of training funds	15 (40)	9 (24)	10 (26)	34
Staff factors (staff resistance/ commitment to other models)	10 (26)	8 (21)	6 (16)	24
Treatment model factors (e.g., appropriateness for their clients)	10 (26)	8 (21)	9 (24)	27
Funding/Resources/Cost of the Model	9 (24)	8 (21)	18 (47)	35
Lack of training/qualified staff	7 (18)	8 (21)	2 (5)	17
Organizational Factors (e.g., structure/lack of state support)	4 (11)	5 (13)	3 (8)	12
Lack of qualified trainers	3 (8)	2 (5)	2 (5)	7
Other	7 (18)	3 (8)	6 (16)	16

The survey also addressed factors that may influence the adoption of EBPs. In particular, 30 CSBs (78.9% *agree* or *strongly agree*) indicated that individual clinicians decide what treatment models they use with their clients. However, 37 (97.4%) reported that the clinicians at their CSB are interested in learning new treatment models and that there are opportunities for clinicians to regularly exchange information on new treatment models. Finally, across all CSBs, it was reported that clinicians had an average of 31.4 (*SD* = 21.7 hours) hours per year for clinical training. However, this ranged from a low of eight hours per clinician to 100 hours.

Discussion

The rates of co-occurring psychiatric and substance use disorders found in this study (12.4%) are comparable or somewhat higher to the rates reported in other studies of adolescent outpatient mental health population (e.g., Kramer, et al., 2003; Wilens, Biederman, Abrantes & Spencer, 1997), indicating a sufficient need to implement EBP for co-occurring disorders. Although the results of this survey suggest that the providers of public behavioral health care services in Virginia may be relatively receptive to the adoption of EPBs, it is clear that any attempt to initiate change across CSBs must target individual clinicians. Generally, they decide what treatment model they will use, and staff factors (including resistance to specific EBPs and commitment to other treatment models) were identified as major obstacles to dissemination. In addition, any successful dissemination effort would need to address the perceived lack of staff time to participate in training, particularly in settings where there is minimal time to do so. The results of this survey will be used to develop a research and action plan for EBP dissemination across organizations and providers.

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Changes in Attitudes: New Research on Evidence-based Practice Implementation

Gregory A. Aarons

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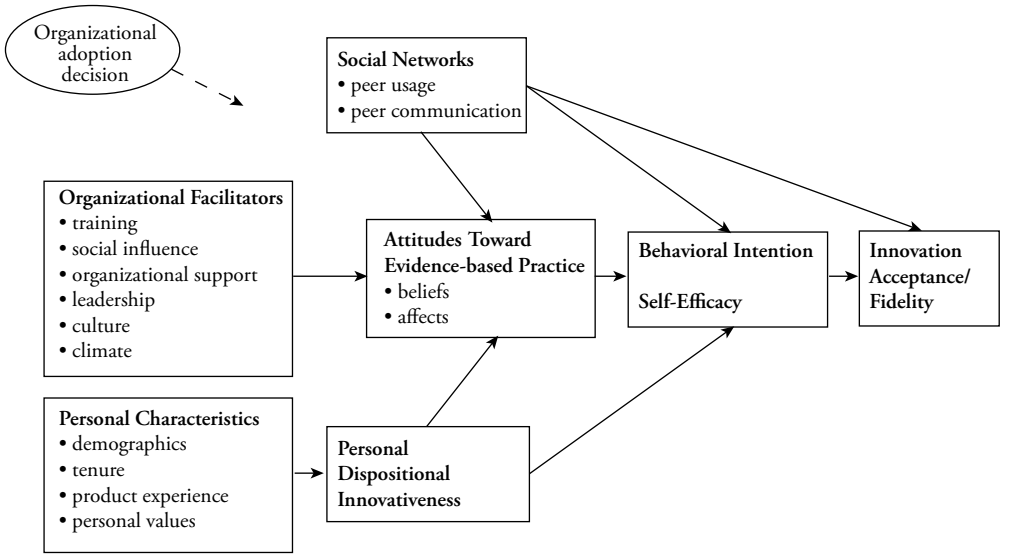
Introduction

The dissemination and implementation of evidence-based practices (EBPs) is an important priority area in children's mental health. A number of theories have been developed to improve our understanding of attitudes and attitude change in organizations. Frambach and Schillwaert (2002) recently proposed a model of innovation adoption in organizations. The model posits that attitudes can be an important factor in the adoption of innovation in the workplace (Aarons, 2004; Aarons, 2005). Klein and Sorra (1996) also outline aspects of organizational climate for innovation. Evidence-based practices can be considered innovations in mental health services and principles of individual and organizational influences on the use of EBP may inform research and practice (e.g. Schoenwald, Ashli, Letourneau, & Liao, 2003). As shown in Figure 1, Aarons (2005) has recently adapted innovation implementation models to EBP implementation.

Figure 1
Conceptual Model of Factors
Influencing Service Provider Evidence-Based Practice Implementation
(Aarons, 2005; adapted from Frambach & Schillewaert, 2002)



EBP implementation can best be facilitated if researchers and practitioners take into account the complexity inherent in real-world service settings (Fraser & Greenhalgh, 2001; Hasenfeld, 1992; Henggeler & Schoenwald, 2002; Jankowicz, 2000; Simpson, 2002). Such complexity includes federal, state, and county policies and regulations, contracting provisions, leadership, supervision quality and process, organizational norms and expectations, and organizational culture and climate (Aarons, 2005; Glisson, 2002). There have been several calls for research suggesting the need for a better understanding of the context into which evidence based practices (EBPs) are likely to be disseminated (e.g., Burns, Hoagwood, & Mrazek, 1999; Glisson, 2002; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Schoenwald & Hoagwood, 2001).

Common technology transfer methods in social services such as treatment manuals and off-site training sessions generally fail to account for real-world complexity (Addis, 2002; Backer, David, & Soucy 1995; Backer, Liberman, & Kuehnel, 1986; Henggeler & Schoenwald, 2002; Strupp & Anderson, 1997). The guiding premise of this discussion is that provider attitudes toward adopting EBP are related to organizational context and provider characteristics. Providers are embedded within the complex organizational context of mental health service systems (e.g., Burns, Hoagwood, & Mrazek, 1999; Garland, Kruse, & Aarons, 2003; Glisson, 1992, 2002; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001).

Data from two studies are presented to illustrate how attitudes are associated with contextual and individual provider factors. In addition these two studies illustrate how to assess multilevel factors that are likely to affect the evidence-based practice implementation (EBPI) process. Finally, this summary describes how the second study (a statewide EBPI) links organizational and individual characteristics to EBPI.

Method

Study 1—Organizational Factors in San Diego

Participants were 322 clinical and case management service providers and 51 program managers from 51 public sector programs providing mental health services to children and adolescents and their families in San Diego County, California. Eighty percent of respondents were full-time employees and primary disciplines included marriage and family therapy (33.9%), social work (32.3%), psychology (22.4%), psychiatry (1.6%), and "other" (9.9%; e.g., criminology, drug rehabilitation, education, public health). Interns were less prevalent in the service system (24.9%) relative to fully employed staff (75.1%), and interns represented disciplines of marriage and family therapy (46.8%), social work (24.7%), psychology (20.8%), psychiatry (1.3%), and "other" (6.5%). Participant programs were publicly funded child/adolescent mental health programs providing outpatient treatment (52.9%), day treatment (23.5%), case management (11.8%), wraparound services (7.8%), and inpatient treatment (3.9%). Most programs were contracted with the county to provide services (83.7%) in contrast to operating under county administration structure (16.3%).

Study 2—Oklahoma EBP Effectiveness Study

Participants were 111 case-managers delivering either an EBP to decrease child abuse/neglect or services as usual in a statewide effectiveness trial in Oklahoma. Most (94.6%) of respondents were full-time employees and primary disciplines included social work (45.3%), psychology (25.3%), human relations (12.8%), marriage and family therapy (8.4%), child development (6.3%), and drug/alcohol counseling (2.1%). Interns were less prevalent in the service system (18.8%) relative to fully employed staff (81.3). Participant programs were publicly funded child welfare and children's services child/adolescent mental health programs providing in-home services.

Measures

For both studies provider surveys were used to assess organizational culture and climate, attitudes, and individual level variables. The provider survey incorporated questions regarding provider demographics including education level and professional status as indicated by whether the respondent was an intern or employed professional. Primary discipline was identified as marriage and family therapy, social work, psychology, psychiatry, and "other." The "other" category included disciplines that were not one of those mentioned above (e.g., criminal justice, drug rehabilitation, education, public health). Organizational climate and culture were assessed with the Children's Services Survey (Glisson, 2002). Other factors assessed included personal dispositional innovativeness, social influence, and training.

Procedure

Study 1. Programs were participants in a study of organizational factors in child and adolescent mental health services in San Diego County. Permission was obtained to interview each program manager and to survey service providers who worked directly with youth and families. Surveys were completed at the program site in a group administration format.

Study 2. Programs were participants in an effectiveness study of an evidence-based intervention to decrease child abuse and neglect and increase child well-being. The implementation study examines factors associated with the implementation of the intervention. Permission was obtained to survey service providers who worked directly with families. Surveys were completed through web-based interface.

Results

Study 1. Organizational variables associated with attitudes toward EBP included organizational culture, organizational climate, type of program (e.g. outpatient, wraparound, day treatment), level of bureaucracy, and having formalized policies about practice. Individual provider characteristics associated with attitudes toward EBP included provider educational attainment and intern status.

Study 2. Preliminary analyses suggest that social influence processes, organizational factors, and provider characteristics are associated with attitudes toward adopting EBP.

Discussion

While many factors influence the adoption of innovation, it is important to understand how organizational context, provider characteristics, and attitudes may facilitate or hinder implementation efforts. Further research should examine attitudes in relation to organizational and provider characteristics in order to better tailor implementation strategies to be most effective.

Little is known regarding the interaction of organizational characteristics and provider characteristics when an EBP is implemented. For example, organizational culture provides norms for behavior within an organization. If attitudes toward adoption of EBP are weak and culture is strong, then the effect of culture may overpower attitudes. However, strong attitudes can be congruent or incongruent with organizational norms. To the degree that attitudes toward adoption of EBP are at odds with organizational norms and proposed organizational change, staff may perceive the climate as stressful and poor work attitudes, poor job performance, and staff turnover may result. This is just one example of how organizational and individual factors can interact and more study of such factors is needed.

The effectiveness of implementation efforts will likely be impacted by provider attitudes toward EBP, the specific type of EBP, organizational climate for innovation, and the fit between personal values and those of the organization. This "innovation-values fit" can be maximized by providing a strong implementation climate, ensuring skill in the innovation, providing incentives for its use, and removing obstacles to the use of the innovation. An organization can provide incentives for employees through praise, encouragement by supervisors, and the provision of tangible and valued rewards. Some obstacles may be overcome by including participative decision making about the innovation, allowing ample time for learning about the innovation, and responding to questions and complaints about the innovation by employees. EBPI may also be facilitated through strong commitment to and support of the innovation by the organization, and communication and information sharing throughout the implementation process.

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Stages of CBT Implementation: Appraisal through Assimilation

Teresa L. Kramer & Barbara J. Burns

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Introduction

Few studies in health care have systematically monitored implementation of evidence-based practices (EBP) over time or identified variables that contribute to successful progression from initial awareness of an intervention to full-scale adoption. Such empirical work will contribute to development of measures that will allow for more careful investigation of the diffusion process of EBP in usual care. This information is also critical to identifying strategies that will enable administrators, clinical managers and researchers to predict the success or failure of dissemination efforts and tailor change interventions to best suit the needs of key stakeholders.

A considerable bulk of the work on science-to-practice models has used diffusion theory (Rogers, 1995) to describe the stages associated with implementation of EBP: (1) knowledge acquisition, (2) persuasion, (3) decision-making, (4) implementation, and (5) confirmation. Although the diffusion of cognitive behavioral therapy (CBT) was examined from knowledge acquisition through confirmation using a multi-method assessment process (MAP; Kairys et al., 2002; Crabtree et al., 2001), for the purposes of this report, we focus exclusively on the later stages. CBT was selected because it meets several of Rogers' innovation criteria essential for diffusion ease, including relative advantage, trialiability and compatibility.

Methods

Two public-funded, urban mental health centers participated in this study. Clinicians were eligible to participate if they anticipated treating at least two depressed adolescents in an outpatient or school-based setting per month. Of the 35 eligible clinicians, 25 agreed to participate. Clinicians were randomized into usual care (n = 10) versus CBT training (n = 9); six clinicians dropped out. Investigators collected qualitative data through 16 key informant interviews audiotaped and transcribed; field notes; review of medical records; audiotaping of select therapy sessions; and notes of supervision with intervention clinicians. Data were preserved in their textual form in Ethnograph, and content analysis conducted to generate categories for data coding. A two-step process was employed in which we completed modified open coding and subsequently organized the components under overarching themes, using modified axial coding. Adolescents were screened for the study using a cut-off of 12 on the Children's Depression Inventory (CDI; Kovacs, 1992).

Results

The implementation phase consisted of clinicians screening adolescents for depression, introducing CBT to adolescents and parents, and engaging in CBT as the treatment of choice. During this phase, 66 adolescents screened positive on the CDI, 49 agreed to be contacted, and 39 were deemed to be eligible for the study. Of the 39 eligible adolescents, 34 agreed to participate; 16 were assigned to the 9 intervention clinicians. Five of the trained clinicians treated 11 of these adolescents using the CBT protocol, based on medical record review, audiotaping and supervision notes. Only two clinicians continued to provide CBT as trained in the confirmation stage. Table 1 illustrates the multiple inhibiting or activating variables at each phase influencing adoption (the process of offering and providing CBT to adolescents) or assimilation (sustaining CBT in the practice setting). The variables are organized into five categories (adolescent/family, intervention, clinician, organization, and external environment), similar to those identified by Schoenwald and Hoagwood (2001).

Table 1
Inhibiting and Activating Variables at Adoption and Assimilation

	Adoption	*Assimilation*
Youth/ Family	**Activating** • Adolescent or family initiates CBT • Adolescent adheres to CBT **Inhibiting** • Adolescent besieged with "crises" • Comorbid disorders interfere with CBT adherence • Adolescent/family request other intervention	**Activating** • Adolescent's symptoms improve with CBT • Adolescent and family attribute symptom improvement to CBT • Adolescent able and willing to continue CBT **Inhibiting** • Adolescent's symptoms do not improve with CBT • Adolescent non-adherent to CBT protocol • Adolescent/family discontinues treatment
Clinician	**Activating** • Clinician initiates CBT with several adolescents • Clinician receives feedback on initial performance, modifies behaviors and implements CBT consistently • Clinician allows for crisis interruption but resumes CBT when crisis is resolved • Clinician participates in ongoing supervision • Clinician is flexible in using CBT for use with adolescents with multiple problems **Inhibiting** • Clinician prefers other treatment • Clinician tries to assimilate CBT into other interventions • Clinician priorities/concerns shift	**Activating** • Clinician confident with CBT implementation • Clinician has access to and uses feedback on CBT adherence • Clinician continues to treat target group • Clinician provides positive feedback to other clinicians regarding CBT success • Clinician maintains position in organization **Inhibiting** • Clinician not confident with CBT • Clinician drops out of supervision • Clinician leaves agency or is assigned to ineligible population (e.g., ages 0-5)
Intervention	**Activating** • CBT amenable to adoption by front-line clinicians • Fidelity measures easily implemented • Supervision provided within the structure of the organization; meets learning needs for clinician • Adolescent homework assignments feasible • CBT has positive results for adolescent **Inhibiting** • CBT manual does not address comorbid disorders • Training schedule and duration are not compatible with "real world"	**Activating** • CBT manual reproducible, easily disseminated **Inhibiting** • Training not easily replicable as new clinicians join organization • Training not easily disseminated
Organization	**Activating** • New patients referred to clinicians trained in CBT • Organization creates monitoring system to assist implementation • Organization coordinates intervention training and supervision **Inhibiting** • Organization's finances require shift in clinician focus • Leadership does not provide incentives for CBT • Organizational climate of low staff morale	**Activating** • Service delivery model remains consistent • Organization supports ongoing coordinator role for CBT • Organization offers training and supervision for new clinicians • Clinician turnover is low **Inhibiting** • Train-the-trainer model not feasible due to high turnover • Organization shifts to new EBP focus • Champion leaves organization
Environment	**Activating** • Payer reimburses for depression care **Inhibiting** • Burdensome payer requirements conflict with clinical quality • Payer system does not reinforce implementation of EBP	**Activating** • Payer continues to reimburse for depression care **Inhibiting** • Environment not conducive to learning.

Discussion

The findings parallel previous work on individual and organizational change with a strong emphasis on the vulnerability of the innovation at later stages of implementation. Successful adoption was attributed to clinician interest in and motivation to implement CBT. Despite barriers, clinicians who implemented and sustained CBT had (a) a high level of clinical skill to balance between adolescent and family needs, incorporate client strengths and weaknesses into treatment and deal with crises within the context of CBT, and (b) professional adaptability to external requirements and constraints, e.g., meeting productivity, completing paperwork, etc. Of the clinicians who consistently provided CBT, none stated that organizational or environmental factors *facilitated* their work. On the other hand, clinicians who did not consistently provide CBT described multiple organizational and environmental variables that diminished their ability to learn and apply CBT. They were more likely to attribute their lack of implementation on paperwork, productivity requirements, and limited staffing support for screening. This finding suggests an interaction between activating and inhibiting variables. When a motivated, competent clinician chooses to adopt an EBP, organizational and environmental factors may play a negligible role in the dissemination process, whereas clinicians with fewer skills or flexibility may need stronger organizational or environmental incentives to initiate or sustain such practices.

Findings from this study have numerous implications for practice. Training manuals and other dissemination tools must allow for flexibility in the treatment process. Guidance should be provided on addressing comorbid symptoms, particularly trauma, aggression and substance use; incorporating individual differences of adolescents; and targeting adolescent resistance and non-adherence. In addition, EBPs will not be effectively disseminated through manuals or toolkits alone. Often referred to as a "passive educational strategy" (Grol & Grimshaw, 1999), this approach will be unlikely to result in behavioral change. The findings also emphasize that clinicians need organizational support to cope with environmental threats.

Because this case study consisted of only two Center for Mental Health Services sites, the results may not be generalizable. Future research should be conducted to confirm whether these stages are congruent with other implementation efforts, to refine measures to assess activating and inhibiting factors at each phase of diffusion, and to test strategies to facilitate the implementation process.

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Four Models from Ohio's Innovation Diffusion and Adoption Research Project (IDARP)

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Introduction

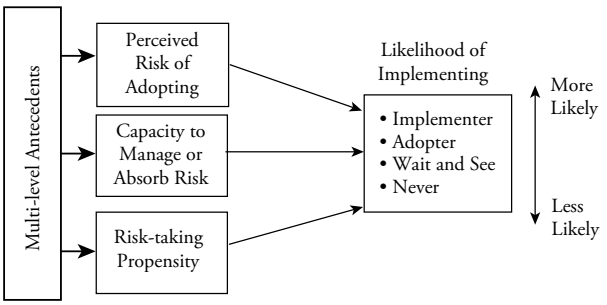
The Ohio Department of Mental Health's (ODMH) Quality Agenda involves taking action in three arenas: consumer outcomes, quality improvement, and evidence-based practices (EBPs). ODMH hopes to improve quality of care by facilitating the adoption and assimilation of EBPs by service providers in Ohio. Coordinating Centers of Excellence (CCOE) have been established as structural mechanisms to accomplish this goal. Each CCOE is seen as the statewide technical expert with regard to the implementation of a particular practice.

The Innovation Diffusion and Adoption Research Project (IDARP) draws on an extensive research base (Panzano, Roth, Crane-Ross, et al., 2002; Panzano et al, in press) to address two broad questions: (a) What factors and processes influence the adoption of innovations (EBPs) by behavioral healthcare provider organizations? (b) What factors and processes contribute to the longer-term assimilation and impacts of innovations by adopting organizations? The four models that guide the project are briefly described below.

Model 1: Decision to Adopt an Innovation as a Decision Under Risk. The first model deals with the decision to adopt (or not to adopt) an innovation such as an EBP. The adoption decision has been widely studied and a myriad of factors have been linked to it. However, this research has been criticized for lacking a theory base. We are proposing a theory base.

The adoption decision is seen as an organizationally-important (i.e., strategic) decision which involves risk (see Figure 1). Following this logic, the decision to adopt is expected to be negatively related to the perceived risk of adopting, and positively related to the organization's (a) capacity to manage implementation-related risks, and (b) historic propensity to take risks. IDARP directly assesses these three risk-related factors as well as a host of antecedent variables that are expected to explain them. Examining antecedents is key to identifying actions that can be taken to modify the three risk-related perceptions.

Figure 1
Model 1



Model 2: Multi-level Model of Implementation Success. The second model suggests that factors at many different levels from the environment (e.g., professional norms) to features of an EBP (e.g., strength of scientific evidence) impact implementation success. Following Klein and Sorra (1996), we have defined implementation success in terms of two classes of outcomes: measures of implementation effectiveness (e.g., fidelity) and measures of innovation effectiveness (e.g., positive outcomes for customers). In addition, implementation effectiveness is expected to be positively related to innovation effectiveness.

Model 3: Cross-phase Effects on Implementation Outcomes. Our third model represents the important idea that aspects of each of three key phases of the innovation adoption process (i.e., initiation, decision, and implementation; e.g., Rogers, 1995) are important to consider due to their likely impact on implementation success. Accordingly, IDARP examines factors linked to the initiation, decision and implementation phases. For example, with regard to the decision phase, we gathered information about: (a) the organization's commitment to the decision to adopt the EBP, (b) the perception that adequate information was available to decision makers (c) the extent to which the decision was objective, and (d) the extent to which the decision process was participatory.

Model 4: Effects of Implementation Climate on Outcomes. The fourth model suggests that a positive climate for implementation is necessary for achieving desired outcomes (e.g., Klein & Sorra, 1996; Conn, Klein, & Sorra 2001). Certain factors are key (e.g., top management support, access to technical assistance, dedicated resources, goal clarity) to maintaining a positive climate. We examined the extent to which climate for implementation, as defined by a range of measures, explained implementation success.

Methods and Progress to Date

The study focuses on four EBPs and 91 projects involving those practices. The four EBPs and associated numbers of projects are: (a) Cluster-Based Planning, involving the use of a research-based consumer classification scheme (n = 23 projects); (b) Multi-systemic Therapy for youth, a model of intensive home-based treatment (n = 16 projects); (c) the Ohio Medication Algorithm Project, an adaptation of the Texas Medication Algorithm Project (n = 15 projects); and (d) Integrated Dual Disorder Treatment, a treatment model for individuals with mental illness and substance abuse issues (n = 36 projects). The four EBPs were judiciously selected by a team of experts with an eye on maximizing the generalizability of findings to other practices.

IDARP employed a longitudinal design involving three rounds of data gathering over a three-year period. At first contact, projects varied in terms of stage of implementation. In other words, some organizations already had decided not to adopt a particular EBP (non-adopter projects); some had not yet made a final decision (wait and see projects); others had recently decided to adopt (adopter projects); others were already engaged in implementation (implementer projects), and; others had decided to rescind the adoption decision (de-adopter projects).

The first round of data gathering involved 91 projects and focused on determining stage of adoption (see Table 1), aspects of the initiation and adoption phases and, in some cases, early implementation efforts. Second and third contacts were made with adopter and implementer projects at intervals of 9 to 12 months to gather information about ongoing implementation and outcomes.

Table 1
Participating Projects by Stage

	Non-adopter	*Wait & See*	*Adopter*	*Implementer*	*De-Adopter*	*Total*
First Contact	12	17	9	47	6	91
Second Contact	1	1	2	42	4	50

Face-to-face interviews with key informants, follow-up surveys, and archival materials were our data sources. Data typically were collected from between two and five key informants for each project, at each data gathering point. The number of informants is related to the project's stage of implementation, with fewer informants for projects at early stages such as the "wait and see" stage (M = 3.2 informants), than for projects engaged in implementation (M = 4.9 informants). To date, the response rate for follow-up surveys among interviewees is ninety-one percent (91%).

Results

Preliminary analyses provide support for the four models. Most variables were measured with multi-item scales where $\alpha = .70$. Findings reported below are significant at least at $p < .05$.

Model 1: The Adoption Decision. Analyses related to Model 1 are based on first contact data from 91 projects. As predicted, the likelihood of adoption was negatively related to the perceived risk of adopting ($r = - .51$) and positively related to the organization's capacity to manage risk ($r = .38$), and the organization's past propensity to take risks ($r = .20$). Expected links also were found with key antecedents to these three risk-related assessments.

Model 2: Multi-level model of implementation success. As expected, implementation effectiveness was positively related to innovation effectiveness. For example, a positive relationship was found between the extent to which fidelity was high and a wide array of positive outcomes. In addition, findings support the idea that implementation success is linked to variables spanning multiple levels. For example, inter-organizational-relationship level variables (e.g., identification with the CCOE, $r = .41$), project-level variables (e.g., performance monitoring, $r = .63$), and EBP-level variables (e.g., availability of scientific evidence, $r = .53$) were positively related to indicators of implementation success.

Model 3: Cross-phase Effects on Implementation Outcomes. Findings supported Model 3. For example, initiation phase constructs (e.g., trust in the CCOE) and decision phase variables (e.g., objectivity of the adoption decision) gathered at first contact were found to be correlated with indicators of implementation success (e.g., positive outcomes) reported at second contact ($r = .58$; $r = .61$, respectively). Thus, aspects of earlier phases of adoption/implementation process appear to have enduring effects on implementation outcomes.

Model 4: Effects of Implementation Climate on Outcomes. Data were not available to fully test model 4 because the third round of data gathering is not yet complete. However, data gathered during the second round provide strong preliminary support that climate for implementation impacts the success of implementation efforts. For example, strong positive relationships were found between a composite implementation climate measure and measures of both implementation effectiveness and innovation effectiveness ($r = .77$; $r = .75$), respectively. This suggests that climate for implementation is key to achieving implementation success, lending support to the work of Klein and colleagues (e.g., Klein & Sorra, 1996; Conn, Klein, & Sorra, 2001).

Implications

Results to date support the explanatory power of the four models that guide IDARP. Findings suggest numerous potential leverage points for influencing the decision to adopt EBPs and for facilitating successful implementation among those organizations that decide to adopt.

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