

## **Chapter Two**

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### **Implementing and Evaluating Evidence-Based Practices**



## **Topical Discussion**

# **Implementing Evidence-Based Practices at the State Level: Challenges, Successes and Lessons Learned**

Robert P. Franks

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## **Introduction**

The purpose of this session was to provide a forum to discuss lessons learned from the implementation of evidence-based practice at the state level. The presenters described their experience in the State of Connecticut, which has adopted a range of evidence-based practices over the past five years. The presenters have been engaged in an ongoing analysis of lessons learned from the state-wide implementation of Multisystemic Therapy (MST), which at the time of this writing included 25 teams across the state. The discussion included an in depth exploration of the experiences in Connecticut, after which session participants related these experiences to other settings.

## **The Connecticut Experience**

In the State of Connecticut, MST services target primarily juvenile justice involved youth who access the services both through the child welfare system and judicial branch. In order to achieve this large-scale implementation of MST, state agencies partnered with an independent institute and with major academic institutions to form the Connecticut Center for Effective Practice (CCEP; the Center). This unique partnership, housed at the Child Health and Development Institute of Connecticut, brings together the resources of the two major state agencies serving children in Connecticut, the Department of Children and Families and the Court Support Services Division of the Judicial Branch, with two academic institutions, the Yale University Child Study Center and the University of Connecticut Health Center. The Center, by leveraging the resources of its partners, acted as an “incubator” for the implementation of MST across the state. The Center worked with MST Services and employed its own training and quality assurance team to develop the first MST teams over five years ago. Having built the capacity within the state, the Center has turned over the management and quality assurance of MST services to another entity, Advanced Behavioral Health, but continues to provide consultation, evaluation and quality assurance services to state agencies, policy makers, providers and consumers.

This summary provides some initial data on the process of statewide implementation and begins to examine systemic barriers and lessons learned from this process. The Center is planning a comprehensive qualitative and quantitative review of MST services in the state, which will be completed next year.

The mission of the CCEP is to enhance Connecticut’s capacity to improve the effectiveness of treatment provided to all children with serious and complex emotional, behavioral and addictive disorders through development, training, dissemination, evaluation and expansion of effective models of practice. The Center’s primary activity in its early years was to work with its partners to build the capacity of the state and to implement MST as a statewide evidence-based practice. Although it is no longer actively involved in the management or quality assurance of MST services within the state, the Center continues to provide consultation services to state agencies and promote the identification, adoption and evaluation of evidence-based practices, including MST.

The contextual factors and reasons as to how and why the state of Connecticut chose to implement MST as a statewide evidence-based practice include policy and fiscal issues as well as consumer need. The state recognized the need for improved care for children in the mental health and juvenile justice services following several reviews in the late 1990s. In the year 2000, innovative legislation was passed, entitled “Kidcare,” which aimed to enhance the traditional delivery of services to children. This legislation included a goal of improved in-home services to keep children in their communities and to prevent more intensive, out of home placements. This provided, in part, the impetus for the introduction of MST. In addition to these policy changes, grant funds became available, and resources were reallocated to support the implementation of evidence-based practices as the growing need for improved services was recognized at the consumer and community level.

Other contextual factors leading to systems change within the state included two major consent decrees for the Connecticut Department of Children and Families impacting child protection and juvenile justice (Juan F and Emily J.), as well as a statewide evaluation of juvenile justice programs that called for major systems change. Further, ongoing media coverage of problems at the state's Department of Children & Families led to an impetus for change in the way services were being delivered across the state.

Despite the range of incentives for system level change, the state lacked the capacity to implement such large scale changes until the Center was created. By leveraging the resources of state agencies, academic institutions and external expert consultants, the Center was able work toward systems change over a several year period. The goals of this implementation were to improve outcomes for youth in the juvenile justice system as well as to change the landscape of practice in mental health, juvenile justice and child welfare.

MST was selected as the evidence-based practice due to an increased push for accountability by state stakeholders, an increased interest in research driven practice, and adoption of models that could lead to systematic fidelity and consistency in provision of services. MST demonstrated a strong research base and relevance to the needs of the juvenile justice population in Connecticut.

### **Review of the Implementation of MST in Connecticut**

The presenters reviewed the development of evidence based practices (EBPs) in Connecticut from 2005 to the present, detailing the expansion of services in two state agencies; this led to 25 teams currently providing services across the state, with four additional teams being added. MST services are also being expanded in Connecticut to include specialty teams designed to target problem sexual behavior, adult substance abuse, trauma, and an MST aftercare model. Currently over 1,100 children across the state are served annually through these services.

The rapid expansion of MST services in Connecticut resulted in some difficulties including some problems with implementation. Many stakeholders questioned whether this expansion was too radical or insufficiently planned, resulting in disenfranchised and at times frustrated providers within the state and mixed reactions from consumers and community leaders. Changes at the state level included systemic, economic, practice and consumer level issues.

Ongoing economic changes included public agencies and private insurance working together to develop billing codes and mechanisms for reimbursement. State contractual services have also changed dramatically (from 25 providers to five). A statewide behavioral healthcare carveout for Medicaid is being implemented that will lead to further economic changes.

Qualitative reports indicated that systems change was difficult for many. Many providers were disenfranchised, old ways of working were often disrupted, and these changes had pervasive effects throughout the juvenile justice system. At the practice level, providers had to develop increased capacity and in many cases the change in practice was not an easy adaptation of existing resources. Many practitioners were unable to develop sufficient capacity to provide MST services and those that did adopt MST continue to struggle with issues of workforce development and staff turnover. In addition, fidelity issues across the MST network are an ongoing area of concern.

At the consumer level, families are becoming increasingly aware of evidence-based practices. In many cases, families report favorable experiences and outcomes—however initial satisfaction data are mixed. In the absence of reported outcome data, consumers tend to respond to anecdotal reports, which in some cases are negative and can derail the process of effective implementation and systems change.

Finally, available initial outcome data at the child and family level show incremental improvements but with mixed results. Further analysis and examination of both qualitative and quantitative data sources is planned for the upcoming year as the Center for Effective Practices conducts a statewide MST Progress Report.

## **Discussion of Experiences in Other States**

Many group participants resonated with the experiences in Connecticut and drew comparisons to their own states. In particular the link between policy changes and practice changes was seen as relevant. The influence of lawsuits and consent decrees was also seen as a shared contextual factor that contributed to change. The recent consent decree in the State of Massachusetts was discussed within the context of lessons learned from Connecticut. In particular, the challenge of translating a consent decree to practical applications and systems change across the State was explored.

Group participants in this discussion asked questions to learn more about the presenters' experiences and to understand the lessons learned in Connecticut. Attendees identified similar issues in their states that seemed to "ring true" with regard to their experience of implementing EBPs. These factors included:

- contextual factors that were an impetus for changing practice
- provider capacity
- workforce development issues
- training issues
- reimbursement issues
- fidelity to the EBP model
- gaps between policy and practice

Many group participants reported that whether they were considered working within their state to implement EBPs or had already begun the process of doing so, there were significant challenges at both the state agency and provider levels that acted as potential barriers to systems change. Most agreed that state bureaucracies were resistant to change and that there were significant barriers to changing practice at the provider level. Many reported that providers did not have the capacity or resources to devote to the appropriate training and supervision of staff and that providers often regressed to traditional models of treatment. Workforce development emerged as a significant issue, both for recent graduates from training programs and for "seasoned" providers who may be resistant to change. All of these factors contributed to sustainability issues and raised policy concerns for how state agencies can facilitate and support systems change.

## **Lessons Learned and Recommendations**

A variety of lessons learned and recommendations for other states are evident. Lessons learned from the statewide implementation of MST include:

- systems change is not easy and multiple barriers were encountered;
- systems change that occurs too quickly or without proper planning can have negative consequences;
- stakeholders can be fickle in their support if results are not evident;
- quality assurance and evaluation are vital;
- reporting back of ongoing progress is critical;
- workforce development and sustainability are major issues that impede implementation; and
- despite challenges and barriers, many positive systems changes are occurring leading to better outcomes for children and families.

Recommendations to other states include:

- "look before you leap;"
- you need to not only identify best practice, but determine your capacity for its adoption and implementation;
- identify mechanisms within the state for adopting EBPs and collaborate closely with state agencies and academic institutions;

- the shifting of resources can lead to resentment and impede implementation if not handled carefully;
- do not lose sight of incremental changes that lead to positive outcomes and set benchmarks along the way;
- explore mechanisms for systems change (value of independent institute); and
- recognize that change from within state agencies is extremely difficult without outside forces and systems of checks and balances.

### **Conclusions and Future Directions**

Group participants concluded that these lessons learned could be further explicated by more in depth research and that they presented an opportunity to develop models for statewide implementation. Further, a shared commitment to the implementation of EBPs was expressed by attendees as well as a desire to engage in ongoing collaborative work to continue to develop the research base and science of EBP implementation in child mental health.

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## **Symposium**

# **Various Strategies for Promoting, Implementing, and Surviving System Change: Steps Toward Transformation**

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### **Symposium Introduction**

Kay Hodges

National, state and local efforts to change systems of care and to introduce evidence-based practices are discussed. Goldman describes an extensive training program for an evidence based practice, the Parent Management Training Oregon Model, in which the agency is building capacity to sustain training and fidelity monitoring. Two presenters discuss very different approaches for meeting the mental health needs of youths referred to juvenile justice and child welfare. Shackelford discusses the development of a system of care for juvenile justice youth with emotional/behavioral problems by implementing the Juvenile Inventory for Functioning (JIFF). Hansen discusses the implementation of a training program for frontline staff within three components of the juvenile justice system in Pennsylvania: probation, juvenile detention, and secure facilities.

#### **Chair**

Kay Hodges

#### **Authors**

Shari Goldman et al.

Scott Shackelford et al.

Marsali Hansen

### **Agency Level Steps Involved in Implementing Evidence-Based Practices within a System of Care**

Shari Goldman, Mary McLeod, & Bobette A. Schrandt

#### **Introduction**

The Michigan Department of Community Health identified the Parent Management Training-Oregon Model (PMTO; Patterson, 2005) as an evidence-based practice for targeting a large population at-risk for mental health problems. Analysis of data on youths served by the public mental health system revealed that 50.4% of the youths had moderate or severe behavioral problems (Wotring, Hodges, Xue, & Forgatch, 2005). Outcomes for these youths, as evaluated by the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 2000), showed successful outcomes for approximately 50% of the youths despite an average length of stay of 11 months (Hodges, Xue, & Wotring, 2005). These data were instrumental in the state's decision to introduce statewide training in PMTO. Prior to the state's mandate for training in PMTO, Easter Seals - Michigan, a contract agency of Oakland Community Mental Health Authority, made the decision to move forward with training in the model, based on CAFAS data and fit between the model and the strengths-based orientation of the organization. The training program is outlined below, followed by the outcome data leading to the implementation decision.

#### **Training Program**

Ten staff initiated training in PMTO conducted by the Implementation Sciences International, Inc. (ISII), which is affiliated with the Oregon Social Learning Center (OSLC), where PMTO was developed. ISII is located in Oregon and Easter Seals is in Michigan; this required a long-distance relationship over the training period of 18 months (thus far). It is anticipated that all trainees will complete the program within 30 months.

Staff selected to participate in the training to certification in the PMTO model were all master's level clinicians. They included eight supervisory staff and two mental health clinicians. Three higher level administrators attended the didactic training days in order to develop an understanding of organizational changes that might need to be implemented to support the model.

Training activities included attendance at workshops, videotaping of therapy sessions, receiving feedback on the videotaped sessions, and participation in consultation over the phone. There were a

total of 18 workshop days, spread over six sessions and led by three staff from ISII, who are referred to as “mentors.” Each of the mentors had been associated with OSLC for more than a decade and are experienced clinicians. Two have doctoral degrees in psychology and the other has a master’s degree in social work.

The workshops were highly interactive and experiential, including brief presentations of concepts followed by extensive role play, group exercises, and demonstration videotapes. In addition to attending the workshops, each trainee was required to videotape sessions of their work implementing the PMTO Model with a minimum of five families. Tapes were sent to the trainers on a weekly basis. Feedback was provided by the mentors via written feedback and bi-monthly phone supervision sessions. The trainees also received instruction in the measure used to assess treatment fidelity for PMTO, the Fidelity of Implementation Rating System (FIMP; Forgatch, Patterson, & DeGarmo, 2005; Knutson, Forgatch, & Rains, 2003).

ISII utilized a collaborative approach. Training materials were adapted to meet the needs of the organization and community. The trainees met monthly for support and administrative trouble-shooting in a group facilitated by the project coordinator at Easter Seals.

The data that led to the implementation of the evidence based practices are presented below. Collection of outcome data is a routine activity at Easter Seals, and as a result, Easter Seals will be able to compare this baseline data to data collected after the training is completed.

## Participants

The sample included 313 youths served at Easter Seals in 2003-2004, the fiscal year prior to the training. The age range was 5 to 18 years old, with a mean age of 11.65 years. The population was 66.8% Caucasian, 22.7% African American, 5% multiracial, and approximately 1% or less each Arab American, Asian, Hispanic, or Native American. Approximately half (48.6%) of the families had single caregivers. For 32.3% of the families, the highest educational level attained by any caregiver was high school.

## Measures

The measure used to evaluate outcomes was the CAFAS; it measures a child’s functioning across eight domains—School or Work; Home; Community; Behavior toward Others; Moods and Emotions; Self-harmful Behavior, Substance use; and Thinking. Based on the rater’s endorsements of behavioral items, the youth’s level of impairment in functioning is determined, using a 4-point scale, as follows: *severe* (30), *moderate* (20), *mild* (10), or *minimal or no impairment* (0). The subscale scores can be summed to determine an overall score or used separately to determine different client types (Hodges, Xue & Wotring, 2004). The CAFAS is administered at intake, then quarterly and at exit for all of the children served.

## Results

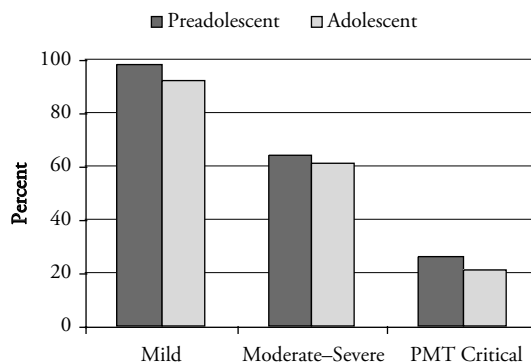
### Indicators of Need for PMTO Training

Data on the percentages of the preadolescents and adolescents served at Easter Seals who could benefit from PMTO are presented in Figure 1. Up to 98.1% of all preadolescents (and 92.4% of adolescents) served at Easter Seals could be impacted by PMTO, as this is the frequency of youth who have at least mild impairment on the Home or Behavior Toward Others subscales of the CAFAS. The Home subscale assesses noncompliance in the home, whereas the Behavior Toward Other subscale mostly captures behavioral excesses that offend or annoy others. If the case were made that PMTO is only needed for more serious cases of noncompliance, then a more conservative estimate would be that 64.4% of the preadolescent (and 61.9% of adolescent) cases could be impacted, as this is the frequency of severe or moderate impairment on either of these two subscales. If the goal were to identify cases in which PMTO would almost certainly be the treatment module of choice from the onset of services (see “PMT Critical” in Figure 1), a conservative estimate would be 26.3% of preadolescents and 21.9% of adolescents. This is the percentage of youths who



display serious noncompliance in the home (i.e., severe or moderate impairment on the Home subscale), have behavioral problems across settings (i.e., also moderately or severely impaired on the School or Behavior Toward Others subscale), and are absent behaviors that might evoke at intake another treatment as the primary treatment module (i.e., no severe impairment on Community [e.g., delinquent-like behaviors], Moods/Emotions, Self-Harmful [e.g., suicidal], Substance Use or Thinking [e.g., rational thought]). These cases could be considered “target PMTO cases,” in that it would be reasonable to ask why the family did not receive PMTO as the primary treatment endeavor.

**Figure 1**  
**Percentage of Preadolescents and Adolescents**  
**Who Could Benefit from Parent Management Training (PMTO)**



## Discussion

Implementation of an evidence-based practice with fidelity requires an organization to make an investment of time, staff, and financial resources, all of which tend to be limited within human service organizations. Appropriate outcome data are critical to the decision making process if an agency is to target populations at greatest risk. Easter Seals was able to utilize data from the CAFAS to advocate with funding sources for the resources to undertake staff training in Parent Management Training - Oregon. As an early adopter within the state, Easter Seals - Michigan is now in the program installation stage, using the framework proposed by Fixsen, Naoom, Blase, Friedman, and Wallace (2005) for the stages involved in the implementation of evidence-based practice. Moving into the initial implementation stage over the next two years, CAFAS data will continue to be utilized as a valuable outcome measure for PMTO within the organization. It will also undoubtedly lead to identification of additional priority populations for other evidence-based models.

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## **The Brown County Story: Baby Steps**

**Scott Shackelford & Jim Hermans**

### **Introduction**

Beginning in 2004, the Brown County Human Services Department (BCHSD) began a journey of self-scrutiny with the assistance of a number of consultants. The goal was to improve the system of care for youths and families served across child serving agencies. This initiative began by looking into using empirically-based outcome and screening tools, which could be used to determine treatment needs, including the match between youth impairment and specific evidenced-based treatments. We decided that the Child and Adolescent Functional Assessment Scales (CAFAS; Hodges 1994) and the Juvenile Inventory for Functioning (JIFF; Hodges 2004), a screening interview for the CAFAS, would be ideal tools to help the Department “get a better handle on” who is referred to us, what they really need, and what differences our well-intentioned interventions make in their lives.

Around this time the Department began talking about systems of care and asking one another, “do we have one here?” We were fairly certain that we did not, especially for children with serious emotional and behavioral problems. BCHSD contracted with the Louis de la Parte Florida Mental Health Institute (FMHI) at the University of South Florida in Tampa to assist us in learning about how to build a system of care. Last year BCHSD sent a small delegation to the Annual Research and Training Center Conference to bring home new ideas about how to develop a system of care. Ideas included System of Care Practice Reviews (SOCPR; Hernandez, Worthington, & Davis, 2005) and Substance Abuse and Mental Health Service Administration (SAMHSA) grant opportunities.

In the spring of 2005, the FMHI team helped us conduct a SOCPR. We took a random sample of cases from our child protection and juvenile justice program areas. The findings confirmed for us the need to transform our system in a number of ways, including: seeking out evidence based practices, developing a system that is family driven and culturally competent, and establishing a collaborative relationship between juvenile justice, child welfare/foster care and mental health/alcohol and other drug abuse, in both the Department and the community.

Since that time, BCHSD conducted cultural competency training for staff, and actions were taken to more deeply involve parent advocates. In addition, we began to incorporate routine administration of the JIFF with all new juvenile justice intakes. In this report, we present results for the data that we have collected thus far.

## **Method**

### **Subjects**

The sample consists of 70 youths who were referred to the Brown County Juvenile Court because of alleged crimes, which ranged from theft, battery, disorderly conduct, sexual assault, auto theft, and other delinquent acts. The mean age was 14 years old (range: 9-16 years old). The sample was primarily male (85.7%). The racial and ethnic makeup of the sample was 74% Caucasian, 10% Native American, and 9% African American. This sample included all youths who received an intake assessment between July and December 2005. The data presented here reflect the JIFF interviews conducted with the caregivers of these youths. At least one caregiver per youth participated. If there were more than one caregiver who attended the intake assessment, they were invited to participate.

### **Measures**

Each family was interviewed with the JIFF: Caregiver Informant Version (Hodges, 2004). The JIFF was designed to be a screening tool for the CAFAS (Hodges, 1994). It contains questions about 10 domain areas: School, Home, Community, Behavior Toward Others, Moods and Emotions, Self-harmful Behaviors, Substance Use, Thinking, Family Life, and Health. Both strengths and problems were elicited in this brief interview. The response options primarily consist of *yes*, *no*, *maybe/suspect*, and *not applicable*. The interview addressed the prior three months, except for one question asking about whether the youth had *ever* experienced a trauma. For the items in the Family Life subscale, the response of *maybe/suspect* is not an option. The directionality of scoring is such that a *yes* response indicates the presence of dysfunction. Training for the administration of the JIFF includes a PowerPoint presentation and role-playing.

### **Procedures**

The staff of the Brown County Juvenile Court provide intake assessments for the purpose of determining appropriate court dispositions as well as service needs. It also serves a diversionary role by keeping kids out of the juvenile court system if possible by utilizing community-based services and working with families to develop case plans. The case management function incorporates monitoring ongoing court cases, preparing court reports, and monitoring the progress of clients and families.

In this study, four intake workers were chosen to administer the JIFF, three males and one female. Two workers had master's degrees in counseling and two had bachelor's degrees. All were highly experienced, working in juvenile justice for an average of 21.7 years (ranging from 18 to 25 years).

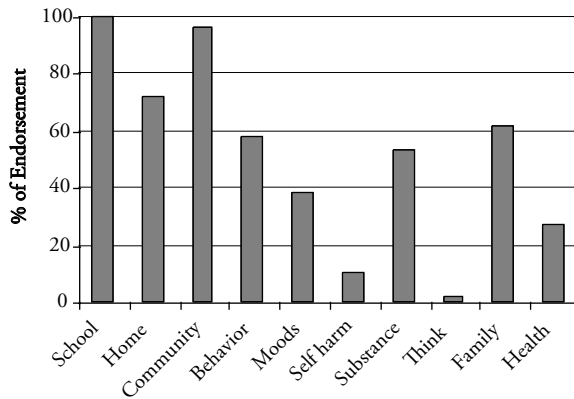
## **Results**

Figure 1 illustrates the percent of caregivers who endorsed one or more items on each of the JIFF subscales. As seen in the figure, more than 70% of caregivers endorsed more than one item in each of the following subscales: School, Community, and Home. More than half of the caregivers revealed that their youth had one or more problems in the following domains: School, Home, Behavior Toward Others, Family Life, and Drugs and Alcohol. Problems with the serious psychiatric symptoms of suicide risk and irrational thought applied to less than 10% of the sample.

Endorsements for specific items were also examined, as they provide guidance regarding the types of services that are needed to serve these youths. At school, the majority of the youths were noncompliant, with 45.7% described as disobedient. At home, 45.7% reported that youths went places they were not supposed to go. Over one-third of the parents (37.1%) wished that their children had friends who were a better influence. Over one-third (37.10%) of the youth had experienced a traumatic event in the past, with 17.2% (*yes*) to 25.8% (*yes* and *maybe*) reporting that they still experience discomfort from the past trauma.

Underage drinking characterized almost half of the children (47.2%), and 28.5% reported use of other drugs during the last three months. In terms of the home environment, caregivers reported that

**Figure 1**  
**Percent of Caregivers Who Endorsed**  
**One or More Items on Each of the JIFF Subscales**



the child's behavioral problems interfered with the caregiver's roles at home, at work, or with family life. Financial burdens (25.7%), missed days at work (22.9%), and conflicts with spouse/partner (22.9%) were the most frequently endorsed family problems. Parents also disclosed serious problems at home involving other family members (i.e., not the juvenile), including domestic violence (8.6%) and substance use issues in the home (7.1%).

## Conclusion

Our experience with the JIFF leads us clearly in the direction of system transformation. Based on the data reported by these families, there are many needs not sufficiently met by community resources. Successfully linking youths and families with appropriate services would require more integrated services. In addition, the creation of a new service unit separate from child welfare and juvenile justice, which can respond more effectively to serious emotional/behavioral problems, is being considered. It is anticipated that this service would team closely with our traditional service units whenever these youth are impacted by abuse or neglect or become involved in delinquent activities. The use of the JIFF has documented these needs and has also been very useful clinically in making treatment decisions. We believe that these changes will help us partner with the larger community of stakeholders, families and providers to form an effective continuum or system of care for children in Brown County.

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## **Staff Education and Training for Systems Change: Joint Efforts of Mental Health and Juvenile Justice**

Marsali Hansen

### **Introduction**

Children and youth with mental health needs who participate in the juvenile justice system are a growing concern. The President's New Freedom Commission on Mental Health (2003) calls for quality screening and assessment for mental health problems for youths served by juvenile justice as well as links with treatment and supports to help prevent mental health problems from worsening. This is a challenging task from a number of perspectives, including the high rates of mental health problems in this population, the organization of services which creates "silos" rather than integrated care, and the lack of training or training opportunities for staff who work with juvenile justice.

It is estimated that at least one in five youths served by the juvenile justice system have a mental health disorder, even when conduct disorder is excluded. Teplin and her colleagues (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002) determined the prevalence of psychiatric disorders in a large sample of youths in juvenile detention. The rates varied by gender, with the ranges by disorder as follows: affective (16% to 23%), anxiety (21% to 29%), attention deficit-hyperactivity (11% to 16%), and substance use (51% to 47%). Rates of comorbidity were also examined, with 18% to 25% of youths having two or more types of disorders, when the types were defined as affective, anxiety and attention deficit-hyperactivity disorder/behavioral (Teplin, Abram, McClelland, & Dulcan, 2003). Domalanta, Risser, Roberts, and Risser (2003) used a questionnaire to assess depression in another large sample of detainees and found that 22% had severe symptoms of depression and another 25% had a moderate level.

Studies from the systems of care literature have found that youths receiving services through juvenile justice tend to be as impaired, or significantly more impaired, than youths being served by other child-serving agencies, including mental health. Referral source differences in functional impairment were studied for 6,073 youths served by the grantees receiving awards through a federal initiative, the Comprehensive Community Mental Health Services for Children and Their Families Program (Walrath, et al., 2001). The Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 2000) was used to assess impairment. Youths whose care initiated with a referral to juvenile justice had rates of impairment in functioning comparable to youths whose care initiated in mental health or the schools, and they were significantly more impaired than youths referred by their families or social services.

This paper describes an innovative cross-agency initiative, the goal of which was to provide training to increase awareness of mental health problems, to encourage linking youths with appropriate care, and to foster healthier interactions with these youths when incarcerated. The Pennsylvania CASSP Training and Technical Assistance Institute, which is nationally recognized for its efforts at improving the skills of frontline workers who work with children and youth with mental health concerns, has launched an effort at multiple levels to improve the preparation of workers in the juvenile justice system to better meet the needs of this population.

### **Background**

The Institute was invited to assist in staff preparation within three components of the juvenile justice system in Pennsylvania: probation, juvenile detention, and secure facilities. In Pennsylvania each program functions independently of the other and therefore each request had separate parameters. However, the Institute's involvement and preparation of the materials resulted in consistency of the content and delivery, not only among staff in the juvenile justice system but also with mental health workers trained by the Institute to work with youth in this population.

## **Training**

### **Training for Probation Staff**

The Institute developed and delivered its first training on the juvenile justice system for mental health workers in 1999. The curriculum, developed in collaboration with the Juvenile Court Judge's Commission, focused on the cultural shift to balanced and restorative justice and was delivered by probation officers familiar with both the mental health and juvenile justice system. Though intended for mental health workers, many probation officers attended these trainings as well. This shared experience, and the networking that occurred among the staff of both systems, was an additional unforeseen benefit. In addition, the juvenile probation's training program subsequently requested the development and delivery of training on children's mental health for probation officers. As in so many venues, training in mental health had been previously delivered by independent contractors who specialized in juvenile justice but were unfamiliar with the advances in the current children's mental health system. Providing a structured training program jointly developed at the state level by both systems created a level of mutual understanding and a shared knowledge base. The curriculum continues to be offered on a regular basis throughout the state and programs are featured at each system's annual conference.

### **Training for Detention Center Staff**

For the second project within the juvenile justice system, the Institute was contracted by the Juvenile Detention Centers' Association of Pennsylvania to develop a train-the-trainer program for detention center staff. Pennsylvania has 23 detention centers located throughout the state; all were invited to participate in the four-day training program. The Institute, in partnership with the Dimensions Training Institute, developed and delivered a mutually agreed upon training agenda beginning in the spring of 2002. Thirteen of the 23 centers participated in the first or second delivery of the curriculum (the second was delivered in the spring of 2004). The Institute was subsequently contracted to evaluate the delivery of the training program at the actual detention centers.

The evaluation of the training program highlighted some specific challenges to implementing statewide training efforts when attendance is voluntary. First, centers found significant difficulty delivering the training program in its entirety as designed. Specific modules were selected due to time constraints of both staff and trainers. Interestingly, there was no consistency in the modules that were selected. Independent observation by Institute staff raised concerns about using detention center staff to deliver the curriculum. The trainers were perceived as lacking the depth of knowledge needed to deliver the material and adequately address the questions of the participants. These discrepancies are consistent with the Institute's move from the train-the-trainer model and increased attention to trainer knowledge and qualifications in children's mental health.

Another challenge was the voluntary nature of participation and delivery of the program. Unfortunately, all programs that sent people to the training were already actively involved and committed to including some training of their own in staff development programs.

The Institute included an attitude measure of staff toward youth with mental health concerns in the juvenile justice system as a component of the staff evaluation packet. The results of this measure reflect an interesting trend. Staff tended to perceive the need to maintain physical distance from such individuals and regard their prognosis as poor for positive outcomes in the individual's personal and social life. However, the staff did perceive them as entitled to the same rights as others and felt benevolence towards them. Though the number completing this measure was small ( $n = 80$ ), such measurement has the potential for identifying a specific focus of training (e.g. decreasing misinformation and increasing personal comfort with the population).

### **Training for Secure Juvenile Justice Facilities**

In the third area of training, the Institute was invited to develop training programs for the staff at secure juvenile facilities. Pennsylvania, like many states, has developed specialized units for specific populations within these facilities. The Institute developed training programs for two programs as part of the staff orientation to the new units. The first unit specialized in youth with mental health concerns; the second specialized in the needs of youth with mild mental retardation and subsequent mental health concerns. Both curriculum include approximately five days of training and modules on such topics as parent involvement, mental health diagnosis, cultural competence, writing skills and objective observation. In addition, many modules were individualized for the specific setting. Though the secure facilities are located in different regions in the state, administrative oversight and staff development were provided by an office within the Department of Public Welfare which is the same department (but a different office), that contracts with the Institute. Such sharing at the administrative level resulted in unforeseen opportunities for consultation such as development of practice standards for one of the units.

### **Conclusion**

These three joint efforts are beginning to assure that youth with mental health concerns involved in the juvenile justice system encounter (a) probation staff grounded in current mental health practices, (b) detention staff with a general understanding of mental health concerns, and (c) experience specialized services in secure facilities from staff who approach mental health concerns with an appreciation of the youth's individual struggles. These three projects have resulted in polished tangible products recognized at all administrative levels as examples of the partnership needed for positive systems change. They also provide consistent content on children's mental health among the continuum of juvenile justice services.

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# Multiple Stakeholder Perspectives on Evidence-Based Practice Implementation

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## Introduction

Effective implementation of evidence-based practices (EBPs) into real-world mental health (MH) service settings is an important priority for improving the quality of services and outcomes for youth (Hoagwood & Olin, 2002; Jensen, 2003). Current research is far from conclusive regarding the most effective manner in which to implement EBPs (Henggeler, Lee, & Burns, 2002; Morgenstern, 2000), however new models are being developed (Aarons, 2005) and there are some findings. For example, lack of funds for continuing education is one barrier to change (Simpson, 2002). Multiple strategies such as abstracting services, evidence-based clinical guidelines, incentives for better care systems, and increasing the effectiveness of quality improvement programs can improve implementation (Haynes & Haines, 1998). Implementation can be facilitated at multiple levels including policies, program, clinician, and consumer levels (Dixon et al., 2001). In addition to interventions being evidence-based, implementation efforts should also be evidence-based. Clear, comprehensive, measurable, and testable implementation models are needed to guide research on organizational change. This study is developing such a model. The goal of the present study was to identify barriers and facilitators of adoption of EBPs for organizations serving youth with mental health disorders and related problems and to examine how they vary by organizational level and stakeholder perspective.

## Methods

**Participant Selection.** Participants were drawn from six organizational levels: (1) County Mental Health Officials (including the director of children's MH, an assistant deputy director, and the chief of quality and outcomes ( $n = 6$ ); (2) Organization/Agency Directors ( $n = 5$ ); (3) Program Managers ( $n = 6$ ); (4) Clinicians ( $n = 7$ ); (5) Administrative Staff ( $n = 3$ ); and (6) Consumers of mental health services ( $n = 5$ ).

Selected programs were either operated by the county or provided contract services to the county. These two types of programs have different organizational structures that vary by level of bureaucracy and fiscal constraints on services delivered (Aarons, 2004). Further, the administrative processes and availability of resources needed to implement new practices can vary markedly in these two types of programs. In addition, programs (within agencies) were selected based on the types of services provided (i.e., outpatient, day treatment, case management, residential), size of agency (number of programs), size of program (number of staff), and location (urban vs. rural).

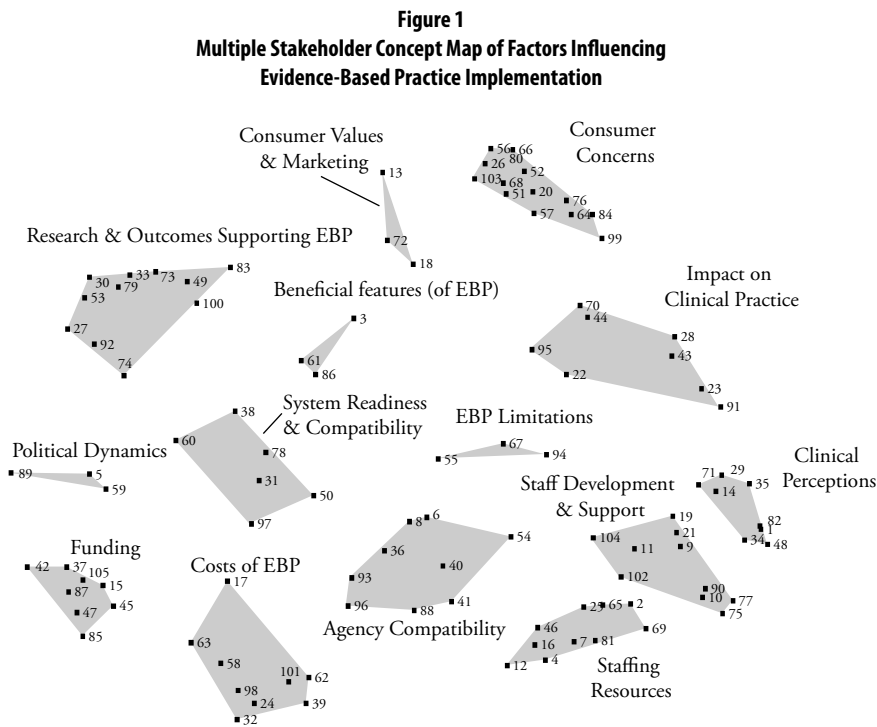
**Participant Demographics.** The mean age of participants was 44.4 years and over half were female (61.3%). The race/ethnicity of the sample was 74% Caucasian, 9.7% Hispanic, 3.2% African American, 3.2% Asian American, and 9.7% "other." Almost three-quarters of the sample had direct experience with one or more evidence-based practices.

**Procedures.** The project used concept mapping (CM; Concept Systems, Inc., 2002), a mixed qualitative-quantitative method whereby qualitative procedures are used to generate data that can then be analyzed using quantitative methods (Trochim, Cook, & Setze, 1994). We began CM with a structured brainstorming process in which stakeholder groups met separately and were given the focus for generating statements. The focus statement was "What are the factors that influence the acceptance and use of evidence-based practices in publicly funded mental health programs for families and children?" Next, each participant was provided with a complete set of 105 statements generated in the brainstorming sessions and completed an "unstructured sort" in which they sorted the statements into piles based on similarity. In addition to sorting the statements, each participant was given a list with all of the statements and asked to rate each of them using a 0 to 4 point scale on "Importance" (from 0, *Not at all important*, to 4, *Extremely important*) and "Changeability" (from 0, *Not at all changeable*, to 4, *Extremely changeable*).

**Analysis.** A square symmetric similarity matrix was generated for each participant based on the card sorting results. The data for all participants are then analyzed using multidimensional scaling (MDS) where a stimulus space is generated. When psychological “distance” or similarity between concepts is entered into MDS, the result is a map of the conceptual space with similar issues or constructs appearing clustered within the space. Similar statements were grouped together in non-overlapping categories called clusters based on their proximity to one another. Using “hierarchical cluster analysis” and MDS, the CM program groups statements into clusters. Therefore, through the use of MDS and cluster analysis, the CM program provides a graphic depiction of a construct that can be immediately evaluated by investigators and/or stakeholder groups. MDS allows for one overall solution for all participants as well as individual configurations for each stakeholder group.

**Findings**

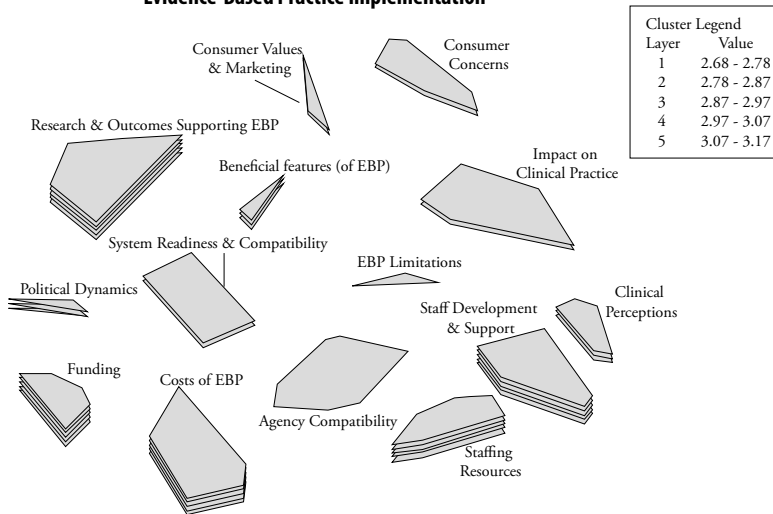
A systematic approach was used to reach consensus about the “optimal” number of clusters that should be used for the concept map. The point and cluster map shows the 14 clusters derived through our data analysis. A number of solutions were reviewed by the investigative team (e.g., 12 clusters, 16 clusters). Each investigator independently examined solutions with fewer and more clusters and made a determination about the “best” number of clusters balancing parsimony with representation of important constructs. The team then reconvened and reached consensus on the final 14 cluster solution. As shown in Figure 1, the 14 Clusters are: Clinical Perceptions, Staff Development & Support, Staffing Resources, Agency Compatibility, EBP Limitations, Consumer Concerns, Impact on Clinical Practice, Beneficial features (of EBP), Consumer Values & Marketing, System Readiness & Compatibility, Research & Outcomes Supporting EBP, Supporting EBP, Political Dynamics, Funding, and Costs of EBP. Figure 1 also shows that clusters that are closer together are more conceptually similar.



Based on participant’s Importance and Changeability ratings of individual statements, cluster rating maps were created overlaying the relative importance and changeability of each of the clusters. Changeability refers to the average ease or difficulty to altering the elements of a given dimension. Higher scores indicate higher changeability.

As shown in Figure 2, clusters having more “layers” were rated as more important relative to clusters with fewer layers. Although Funding, Staff Development, and Staffing resources were rated as most important, the range is very narrow indicating that differences are not large. In Figure 3, clusters with more layers were perceived as more changeable than those with fewer layers. The three clusters rated as being most important were, Funding, Staff Development, and Staffing Resources and those rated most changeable were Clinical Perceptions, Consumer Values & Marketing, and Impact on Clinical Practice.

**Figure 2**  
**Importance Ratings of Factors Influencing Evidence-Based Practice Implementation**



**Figure 3**  
**Changeability Ratings of Factors Influencing Evidence-Based Practice Implementation**

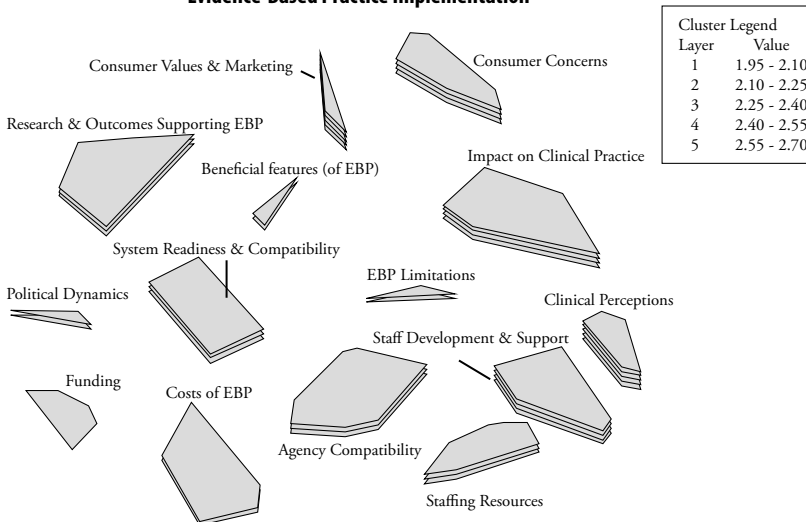
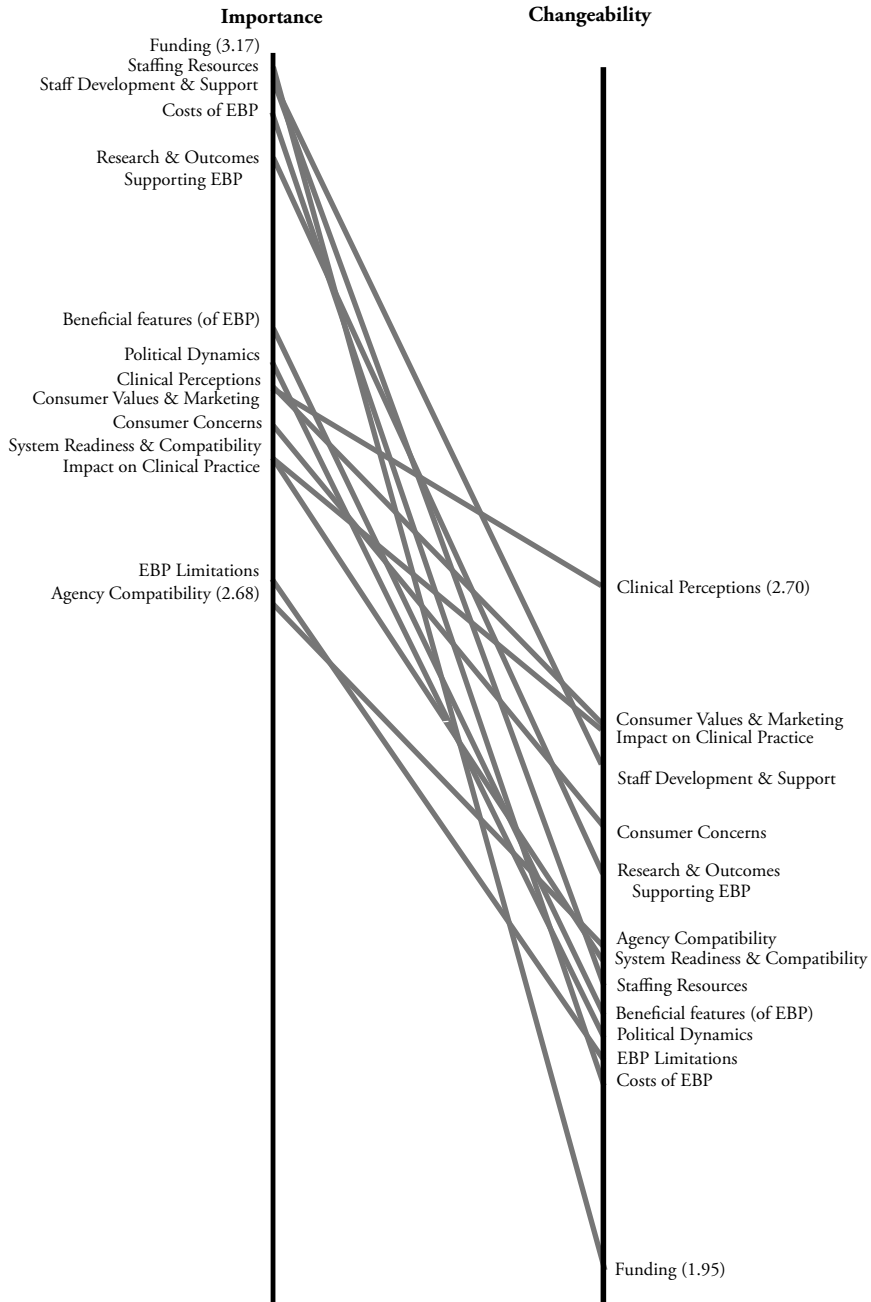


Figure 4 compares Importance and Changeability ratings and this has implications for identifying priorities for implementation improvement. For example, Funding was rated as being the most important (1) and the least changeable (14). Staffing Resources was ranked as being important (2) and not as changeable (9). On the other hand, Clinical Perceptions was ranked at being highly changeable (1) and not as important (8). Most importantly for this project Staff Development & Support were ranked highly as being important (3) and changeable (4). This implies that this may be an area for attention in the implementation process. Figure 4 suggests that a practical and balanced approach must be taken for successful implementation. It will likely be most fruitful to address issues that are important but have a realistic probability of being changed to facilitate implementation.

## **Conclusion**

This study demonstrates that there are a number of multiple stakeholder concerns that may impact implementation of EBPs in real world service settings. Data analyses also demonstrated variability across stakeholder groups and stakeholder groups varied on Importance and Changeability ratings for barriers and facilitators of evidence-based practice implementation. These findings suggest that it will be important to consider the concerns of multiple stakeholders in EBP implementation. Processes for egalitarian multiple stakeholders input can facilitate such exchange. Contrasting stakeholder group perceptions suggests that these different perspectives can inform implementation process. For example optimizing message content and delivery method for particular stakeholders may promote more positive attitudes toward implementation of change in service models. Further research is needed to better understand how factors identified in the present study impact actual EBP implementation efforts.

**Figure 4**  
**Importance vs. Changeability of Factors Influencing**  
**Evidence-Based Practice Implementation**



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# **Implementation in the Real World: Factors that Impact Implementation of Evidence-Based Programs and Practices**

Sandra F. Naoom  
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## **Introduction**

For some time now, a number of practitioners and researchers have been actively developing, evaluating, and replicating evidence-based programs and practices. However, the factors involved in successful replication and implementation of model programs in new settings are not as well understood as the processes used to develop and evaluate the interventions. The formal and scientific information (*episteme*) on effective implementation strategies and issues is, at best, in its infancy. Thus, at a time when many more programs and practices are science-based, effective pathways to broad-scale implementation are dimly lit and rocky. The goal of this research was to capture the craft knowledge (*phronesis*) in this nascent arena of implementation.

## **Methods**

Concept mapping was used to record the wisdom and experience of evidence-based program developers and implementers. There were 23 participants representing a variety of different evidence-based practices and programs that are being implemented nationally. As part of the concept mapping process, the participants generated responses to the following focus prompt, “Thinking at the practice, agency, and system level, one specific factor that influences or impacts implementation of a new program or practice is...” Participants generated approximately 124 statements. Each participant was then provided with a complete set of the statements and asked to sort the statements into piles in a way that made sense to them, and to name each pile according to the type of statements included. In addition to sorting the statements, each participant was asked to rate each of the 124 statements from 1 to 5 in terms of *importance*, *feasibility* and *dependency* dimensions. The analysis of these data was conducted using the Concept System software package (Concept Systems, Inc., 2002), which makes use of key multivariate statistical techniques including multidimensional scaling and cluster analysis. This analysis was used to create a conceptual map of statements generated by the participants.

## **Results**

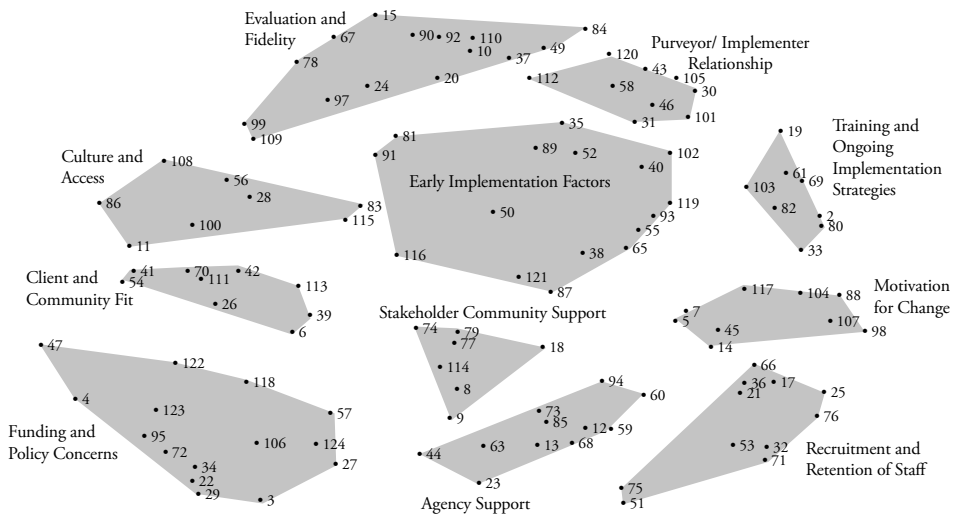
When we combined both implementer and program developer sort data (i.e., the 124 statements), the result was an eleven-cluster solution. Figure 1 shows the resulting cluster map. The resulting conceptual domains for the program developer and implementer clusters are shown in Table 1, along with the mean rating across groups for the dimensions of importance, feasibility, and dependency. The following sections compare implementer and program developer results on the dimensions of importance, feasibility, and dependency.

### **Importance**

When comparing the statements that implementers and program developers rated as the top ten most *important* implementation factors of the 124 generated, seven were endorsed by both groups. Items of importance were:

- Evidence-based interventions that can be taught, modeled, evaluated and replicated,
- Major stakeholder and leadership buy-in and support of the new model,
- Available, ongoing training and technical assistance,
- Staff commitment to the program model, and the availability of ongoing training and technical assistance,
- Support from the developer in terms of ongoing training, evaluation, and constructive feedback,

**Figure 1**  
**Implementer Plus Program Developer Concept Map—11 Cluster Solution**



**Table 1**  
**Average Importance, Feasibility, and Dependence Ratings for Implementer Plus Program Developer Cluster Solution**

Cluster	Importance	Feasibility	Dependence
Purveyor/Implementer Relationship	4.30	4.30	2.07
Recruitment and Retention of Staff	4.29	3.13	2.49
Evaluation and Fidelity	4.29	4.21	2.68
Stakeholder/Community Support	4.29	3.38	2.63
Motivation for Change	4.19	3.65	2.22
Agency Support	4.18	3.14	2.53
Early Implementation Factors	4.17	3.98	2.24
Training and Ongoing Implementation Strategies	4.08	3.81	2.02
Funding and Policy Concerns	4.07	2.93	3.86
Client and Community Fit	3.83	3.17	2.50
Cultural and Access	3.80	3.67	2.36

- Adequate funding to support implementation as well as ongoing operation of the program after implementation, and
- Support from the agency.

Of implementation factors that were rated differently on importance (i.e., one of the groups did not list them within the top ten), program developers perceived *quality control, fidelity, and adapting the model* as more important, whereas implementers were more concerned with *staff selection, staff training,* and with *creating a bond between program developers and themselves.*



## **Feasibility**

Implementers and program developers agreed on 5 out of the top 10 implementation factors rated as most *feasible* for impact by program developer. These factors were:

- Evidence-based interventions that can be taught, modeled, evaluated and replicated,
- The availability of ongoing training and technical assistance,
- Support from the developer in terms of ongoing training, evaluation, and constructive feedback,
- Clear information from the start about fidelity, and
- A link between the evaluation of fidelity and training.

The implementation factors that program developers thought they could most feasibly impact, but implementers did not endorse for the top ten, were primarily about future planning issues like having realistic timelines for implementation, identifying reasonable goals for implementers, and preparation for any potential or future problems. As for implementers, they thought it more likely that program developers could impact practitioners' understanding of the core components of the program, the need to emphasize fidelity, initial staff training, and setting up data feedback systems.

## **Dependence**

From the top ten lists of implementation factors rated as most *dependent* on state/federal policy and funding, implementers and program developers agreed on the following six:

- Adequate funding to support implementation as well as ongoing operation of the program after implementation,
- Regulations at the county, state, federal, or agency level,
- State aid for programs that are struggling, rather than imposing sanctions on them,
- Flexibility of funding, and funding methods that embrace quality of services versus quantity of services, and
- Modification of state statutes to support interventions of the program.

Their lists differed as follows: Implementers perceived start up costs, paperwork requirements, and monies to ensure program success as more dependent on policy and funding, whereas program developers perceived alignment of billing codes with evidence-based practices, adequate funding for technical assistance and information technology, accreditation, and a focus on human resources as more dependent on state/federal policy and funding.

## **Implementer Plus Program Developer Pattern Match Results on Feasibility**

Pattern matches are an extension of concept mapping techniques that allows the viewer to get a visual picture (shown thru a ladder graph) of amount of agreement between two groups or two scales. A pattern match consists of two elements: a visual picture of the match and a correlation coefficient associated with the match. In this study, we conducted a consensus pattern match (not shown here) in which the ratings of implementers were compared with those of program developers. The correlation between implementer and program developer ratings of feasibility of program developers' ability to impact implementation factors as they help sites implement evidence-based programs and practices is .90. There appears to be overall agreement between implementers and program developers on the work of program developers in implementation.

## **Implementer Plus Program Developer Go-Zone Results on Feasibility**

In order to get a detailed picture of the differences between implementer and program developer ratings on the feasibility of program developers' to impact implementation factors we conducted a go-zone analysis (see Figure 2). The Go-Zone analysis allows the viewer to look inside each cluster of statements and see the feasibility rating data from participants on each implementation factor. The Go-Zone is represented as a simple bivariate plot, divided into 4 quadrants with implementer ratings on the

vertical axis and program developer ratings on the horizontal axis. The following section describes what implementation factors were considered most feasible by implementers, but less feasible by implementers, and those factors considered most feasible by program developers, but less feasible by implementers.

When we look at the statements individually, although implementers thought the following factors were most feasible for program developers to impact, program developers thought they had less impact on these same factors (i.e. the implementers had high expectations of the program developers, but the program developers were not so sure they could deliver, see Figure 2, Quadrant I). Individual statements (statement number in parentheses) falling in this quadrant included:

- the program manager's ability to advocate for the program both within the agency and outside the agency (36);
- motivation for change (45);
- a system that supports and encourages collaboration (74);
- to take consumer input through the entire implementation process and use it (91);
- computer and technical assistance (99);
- the use of technology (109);
- that legal or liability issues are addressed prior to implementation (116), and;
- having a sense of humor (117).

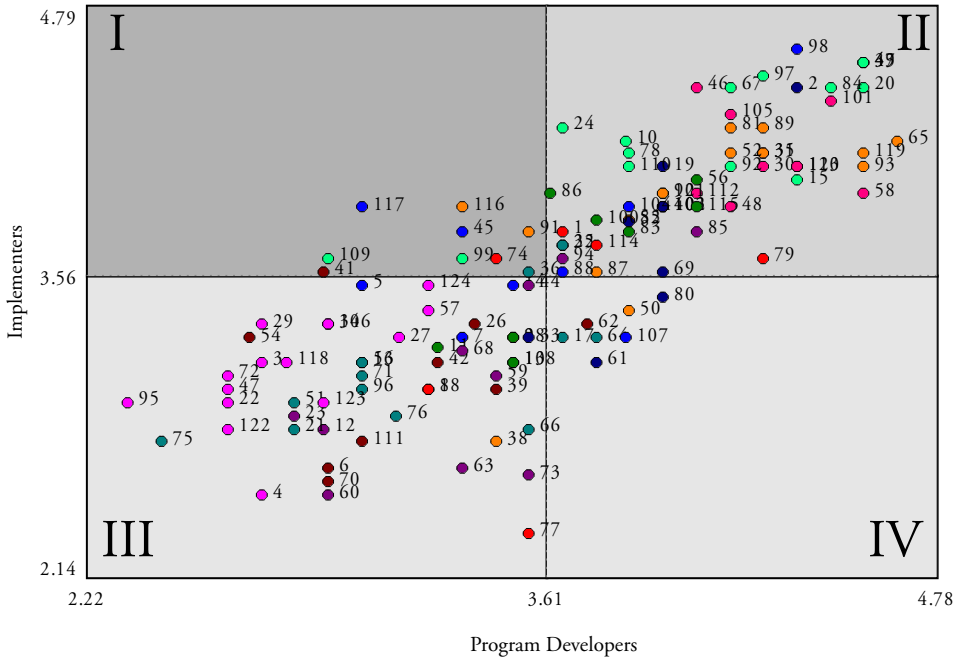
Conversely, program developers thought it was most feasible for them to impact the following factors, while implementers thought the program developers might have less of an impact (i.e. the program developers were pretty sure they could deliver but the implementers were not so sure; see Figure 2, Quadrant IV, lower right):

- work expectations that are reasonable (17);
- to identify naysayers and to positively supervise and train them on the model (33);
- recognizing that implementation covers areas that the evidence-based intervention does not cover (e.g. marketing) (50);
- facilitate regular off-site leadership meetings to address the challenges and barriers which arise during implementation and beyond (61);
- the quality of the screening of referrals including client commitment to participate (62);
- identification of key skills of staff and service providers to be used in selection processes (64);
- the understanding and application of appropriate learning theories (i.e. early childhood, adolescent and adult; (80); and
- implementation with newly hired staff is different than implementation with current staff (107).

## **Conclusion**

Concept mapping is a unique tool in that it allows individual participants and groups to describe their ideas about some topic in a pictorial form. Concept mapping allowed us to study and present visually how implementers and program developers perceived factors related to the implementation of a new program or practice. The results from this concept mapping study demonstrate that a disconnect exists between implementer and program developer perceptions of roles and responsibilities. Additionally, the data shows us that what implementers valued and needed (guidance on staff selection, staff training) was markedly different from what program developers valued and needed (quality control, fidelity). In order to move the field of implementation of evidence-based practices and programs along there needs to be greater clarity around the roles and responsibilities of both parties.

**Figure 2**  
**Go-Zone Analysis of Implementer and Program Developer Ratings on Feasibility**  
( $R = .8$ )



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# **Staff Selection as a Core Component of Evidence Based Practices Implementation: Findings from Ohio's Study of Integrated Dual Disorders Treatment (IDDT) Program Development**

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## **Introduction**

Of the many requirements for moving evidence based practices (EBPs) in behavioral health care from the research setting to routine practice, successfully matching interventions and staff selected to deliver them has emerged as salient. Although preferred practitioner qualifications and hiring methods are discussed in the literature, there has been a dearth of research on the subject, especially in the area of services for adults in the community mental health system. The authors review some of Ohio's early findings from a national demonstration project studying the implementation of EBPs. Findings specific to staff characteristics and selection methods for the implementation of one EBP, Integrated Dual Disorders Treatment (IDDT), designed to serve adults with co-occurring mental and substance use disorders, suggest the importance of the issue for successful program development.

## **Method**

Ohio was one of eight states to participate in the National Implementing Evidence Based Practices Project, coordinated by the Dartmouth Psychiatric Research Institute and funded primarily by the Substance Abuse and Mental Health Services Administration (SAMHSA). Four Ohio community mental health centers implemented the Integrated Dual Disorders Treatment model, using the Implementation Resource Kit or Toolkit developed specifically for the practice (SAMHSA, 2003). Overarching goals of the project were to test the utility of the Toolkit and to extend knowledge of IDDT implementation processes in real-world settings. In addition to the printed materials and videos included in the Toolkit, all sites received intensive and ongoing technical support from an expert Consultant/Trainer from the Ohio Substance Abuse and Mental Illness Coordinating Center of Excellence (SAMI CCOE). The SAMI CCOE was created by the Ohio Department of Mental Health to provide implementation technical assistance for programs serving co-occurring disorders in Ohio.

Qualitative data were gathered by a trained qualitative researcher, also a SAMI CCOE staff person, who observed treatment team meetings, client treatment groups, practitioner training sessions, and in vivo practitioner activities. Qualitative data were also gathered through semi-structured interviews with practitioners, team leaders, administrators, consultants/trainers, clients, and family members. Evaluations of the program's progress in implementing the model were conducted at baseline and at six-month intervals thereafter, using the General Organizational Index (US Department of Health and Human Services, 2003) and the IDDT Fidelity Scale (Weider, Boyle & Hrouda, 2006).

All data, including observation notes, evaluation report narratives, and verbatim interview transcripts were entered into an Atlas.ti (Scientific Software Development, 1997) database and subjected to preliminary coding using a range of broad thematic categories determined by national project protocol. To examine data relevant to staff selection, the database was queried for quotations pertaining to staff hiring or re-assignment, agency personnel policies, staff skills and understanding, staff attitudes, and aspects of job responsibilities. From these categories, quotations relevant to team member and team leader selection were extracted. Data across all four sites were subjected to further thematic analysis and additional themes and constructs were suggested by the data.

## Results

Two major topic areas suggested by the literature resonate with the themes emergent for IDDT: (1) specific professional abilities and professional and personal attitudes that appear to impact practitioner uptake of IDDT in community settings; and (2) methods for identifying practitioner characteristics likely to facilitate IDDT uptake.

With regard to practitioner characteristics, a well-developed IDDT practitioner profile had not generally been developed at sites prior to staffing the positions. Due to ubiquitous turnover, however, staff selection was an iterative process and lessons were learned along the way. Credentials, educational backgrounds, knowledge about and exposure to the IDDT population varied widely. Case managers' experience in the field seemed to be more important than familiarity with the IDDT model. A lack of credentials, skills, and experience appeared to be ameliorated by intelligence, enthusiasm, and strong supervision.

For team leaders, excellent clinical supervisory skills seemed to be pivotal, especially where team members were inexperienced. Capacities for promoting team cohesiveness and engaging important community stakeholders in the implementation were important. Managerial and leadership capabilities played an important part in team leaders' real and perceived effectiveness although in general, those skills had not been adequately considered during the selection process. It was observed that strong administrative support/supervision for the team leaders and expert coaching from the consultant/trainer combined to compensate for missing managerial skills.

The degree to which practitioners were motivated, enthusiastic, open to change, and otherwise receptive to the practice changes asked of them seemed to have a notable influence on the uptake of the training. Although experience and skills were important, a willingness to take on IDDT appeared to be primary.

There was considerable variation across sites in all aspects of the staff selection process. Explicit and detailed methods for selecting IDDT practitioners that included both criterion- and behavior-based approaches were not observed at any of the sites. The use of role plays and behavioral vignettes to assess staff-model compatibility were not in evidence. It was observed that criteria for team member selection were better defined than were those for team leader selection. Characteristics relevant to IDDT were not consistently well understood. Not surprisingly, hirers with more understanding of IDDT appeared to be better able to select practitioners whose clinical skills "fit" the model.

Identifying the pool of prospective practitioners seemed to be a salient aspect of the selection process. Two of the sites were able to advertise for and recruit external applicants for their new IDDT teams but at the other two sites, there was little to no discretion afforded for staff selection and existing practitioners and/or team configurations were assigned to the implementation by agency administration. Where existing staff comprised the pool of prospective IDDT practitioners, recruitment appeared to be a better method than assignment. Internal recruitment presented its own challenges, however, depending on the agency's political climate and other employees' perceptions of favoritism. Early or pre-training for the purpose of screening prospective practitioners was demonstrated as useful.

The staff selection process was observed to be functionally intertwined with other core implementation components and it appeared that elements of selection could impact other components either negatively or positively. Elements of staff training and supervision were observed to compensate for deficits in staff selection process. Training staff with fewer skills required more intensive sessions initially from the consultant/trainer. Failing to accurately assess practitioners' attitudes about the model and the population as well as their openness to change seemed to have the most potential for impeding implementation progress. Practitioners who had been assigned to learn and deliver IDDT services appeared to have more difficulty mastering core skill sets, such as motivational interviewing, than those who enthusiastically volunteered. Lessons learned from this endeavor were used to enhance the SAMI CCOE's implementation operations for new programs interested in implementing the evidence based practice.

## **Conclusions**

These findings indicate the need for more empirical examination of issues around staff selection for the implementation of IDDT and other evidence based practices in behavioral healthcare. Defining criteria for the desirable IDDT practitioner and team leader and then testing the relationships among practitioner characteristics and implementation and intervention outcomes is a needed next step. In addition, developing interview protocols that incorporate tested methods of assessing for desirable criteria and evaluating their effectiveness would advance the field. It will be important to measure the interaction and relative importance of practitioner characteristics, selection methods, and preconditions impacting the staff selection process. Implications abound for developing and improving technical assistance services.

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# **Evaluation of Community-Based Aggression Management Programs**

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## **Introduction**

Aggressive behaviours, such as getting into fights, stealing and victimization, are a common problem among children (Offord & Lipman, 1996). Aggressive behaviours often co-occur with other emotional and behavioural problems, academic problems and with difficulties in social relationships, and commonly persist beyond childhood. There are substantial financial costs associated with these difficulties by multiple service systems (e.g., schools, courts, health). Regrettably, many children who suffer from these difficulties do not get assistance with their problems. When these children do receive attention or assessment, it is common for agencies dealing with them to recommend attendance at an anger management program. This substantial demand for anger management programs is met by a lack of well-evaluated programs that are readily available in the community, schools or clinics.

We present the results of a randomised controlled trial (RCT) of community-based aggression management groups for children 7 to 11 years of age and their families. We adapted a promising manualized CBT-based clinical program with available training (Williams, Waymouth, Lipman Mills & Evans, 2004) and used an effectiveness (“real-world”) evaluation framework. The primary objective of the RCT was to evaluate whether, among children 7 to 11 years old, anger and aggressive behaviours improved in those who were randomized to participate in an anger management group vs. control. Improvements in other associated child feelings and behaviours (e.g., hostility) and parent-child relationships were evaluated as secondary objectives.

## **Method**

Families with children 7 to 11 years old were recruited through community advertisements. Interested families phoned in, and eligibility determined. Inclusion criteria were (a) child in age range living in area, (b) identified by a parent as having difficulties with anger or aggressive behaviours, (c) parent(s) agreement to RCT participation, and (d) sufficient command of English to participate. Exclusion criteria were (a) significant intellectual impairment or severe psychiatric problems (e.g., autism, current severe depressive disorder), (b) child unwilling to participate, and (c) changeable home situation (e.g., child in and out of foster care). Children meeting these criteria also had a telephone behavioural screen (Brief Child and Family Phone Interview, BCFPI; Cunningham, Pettingill & Boyle, 2004). Children scoring  $\geq 1.0$  *sd* above the population mean and  $\leq 1.0$  *sd* above the clinical mean on the externalising scale were selected.

Children and families randomised to the intervention group participated in a 16-session program (10-weekly child group sessions, 3 parent/caregiver psycho-education/skill-building group sessions, and 3 in-home family practice sessions). Those randomised to control received a standard information booklet.

The children’s group used a problem-solving process, based on cognitive behaviour therapy principles, to help children become aware of and learn to manage their temper. Group size was 6-10 children. Parent group sessions, held prior to the start of the children’s group, focused on learning about developmentally normal expressions of aggression, becoming aware of the strategies learned in the children’s group sessions and how to support the child’s use of these strategies, and appropriate behaviour management techniques. In-home family practice sessions allowed individualization of content.

Groups were led by two trained leaders, were manual-driven, sessions were videotaped, and weekly supervision provided.

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Nine intervention groups were run. Assessment data were collected during home visits and telephone calls (BCFPI only) pre-group and post-group by naïve interviewers. Measures included the BCFPI (Cunningham et al., 2004), Children's Inventory of Anger (Finch & Eastman, 1983), Child Behaviour Questionnaire (Robin & Foster, 1989), Children's Hostility Index (Kazdin, Rodgers, Colbus & Siegel, 1987), Parenting Stress Index (Abidin, 1992), and the Centre for Epidemiologic Studies Depression Scale (Radloff, 1977). All scales were parent response, except the child-response anger measure.

Over 400 families (425) phoned for information, 401 received detailed information, and 123 entered the trial. This sample size was selected to provide adequate power to detect medium size standard effects, as found in preliminary work (Williams et al., 2004). Ineligibility accounted for most of the exclusions (e.g., 63 outside age range, 12 out of area, 19 parents unwilling to be randomized, 8 child intellectual/psychiatric problems, 6 unstable living situations, 11 children unwilling to participate, 18 BCFPI too high, 10 BCFPI too low). Post-group data were collected from 99 (80.5%) families. Analyses were completed using SPSS version 12.0. An intent-to-treat approach was used. Bivariate and multivariate analyses were performed.

## Results

Participants in the trial were mostly male (102/123 = 82.9%) and 39.8% (49/123) lived in single parent families. Income was varied. There were no significant differences between intervention and control families at baseline on demographic characteristics or outcome measures either at study entry (123) or those participating in post evaluations (99).

Pre-post outcome measures are shown in the Table 1. Children in the intervention group appeared to improve more than control children on all parent-rated measures (small effect sizes 0.27–0.29), but not for child-rated anger. Pre-post comparisons using repeated measures ANOVAs indicate no significant intervention effects.

**Table 1**  
**Pre-Post Outcome Measures**

<i>Outcome</i>		<i>n</i>	<i>Pre (SD)</i>	<i>Post (SD)</i>	<i>F</i>	<i>p</i>	<i>ES</i>																																																								
Anger	I	46	51.5 (13.6)	48.0 (13.4)	$F_{(1,88)} = 0.07$	0.79	-0.06																																																								
	C	47	55.4 (10.3)	50.4 ( 9.8)				Hostility	I	51	23.2 ( 4.2)	20.8 ( 4.8)	$F_{(1,93)} = 1.55$	0.22	0.29	C	47	23.9 ( 4.4)	22.6 ( 5.9)	Aggression	I	50	26.6 ( 9.6)	20.6 (10.2)	$F_{(1,92)} = 1.84$	0.18	0.27	C	47	26.8 ( 8.9)	23.1 (10.6)	Parent-child Relationship	I	50	7.9 ( 4.5)	6.2 ( 4.7)	$F_{(1,92)} = 1.80$	0.18	0.27	C	47	7.7 ( 3.5)	6.8 ( 3.7)	Parenting Stress	I	51	102.4 (20.4)	93.4 (20.8)	$F_{(1,93)} = 3.34$	0.07	0.28	C	47	99.1 (19.6)	95.0 (18.3)	Externalizing (BCFPI)	I	48	71.1 ( 6.6)	65.6 ( 9.0)	$F_{(1,90)} = 1.01$	0.32	0.28
Hostility	I	51	23.2 ( 4.2)	20.8 ( 4.8)	$F_{(1,93)} = 1.55$	0.22	0.29																																																								
	C	47	23.9 ( 4.4)	22.6 ( 5.9)				Aggression	I	50	26.6 ( 9.6)	20.6 (10.2)	$F_{(1,92)} = 1.84$	0.18	0.27	C	47	26.8 ( 8.9)	23.1 (10.6)	Parent-child Relationship	I	50	7.9 ( 4.5)	6.2 ( 4.7)	$F_{(1,92)} = 1.80$	0.18	0.27	C	47	7.7 ( 3.5)	6.8 ( 3.7)	Parenting Stress	I	51	102.4 (20.4)	93.4 (20.8)	$F_{(1,93)} = 3.34$	0.07	0.28	C	47	99.1 (19.6)	95.0 (18.3)	Externalizing (BCFPI)	I	48	71.1 ( 6.6)	65.6 ( 9.0)	$F_{(1,90)} = 1.01$	0.32	0.28	C	48	70.8 ( 6.0)	66.8 ( 9.6)								
Aggression	I	50	26.6 ( 9.6)	20.6 (10.2)	$F_{(1,92)} = 1.84$	0.18	0.27																																																								
	C	47	26.8 ( 8.9)	23.1 (10.6)				Parent-child Relationship	I	50	7.9 ( 4.5)	6.2 ( 4.7)	$F_{(1,92)} = 1.80$	0.18	0.27	C	47	7.7 ( 3.5)	6.8 ( 3.7)	Parenting Stress	I	51	102.4 (20.4)	93.4 (20.8)	$F_{(1,93)} = 3.34$	0.07	0.28	C	47	99.1 (19.6)	95.0 (18.3)	Externalizing (BCFPI)	I	48	71.1 ( 6.6)	65.6 ( 9.0)	$F_{(1,90)} = 1.01$	0.32	0.28	C	48	70.8 ( 6.0)	66.8 ( 9.6)																				
Parent-child Relationship	I	50	7.9 ( 4.5)	6.2 ( 4.7)	$F_{(1,92)} = 1.80$	0.18	0.27																																																								
	C	47	7.7 ( 3.5)	6.8 ( 3.7)				Parenting Stress	I	51	102.4 (20.4)	93.4 (20.8)	$F_{(1,93)} = 3.34$	0.07	0.28	C	47	99.1 (19.6)	95.0 (18.3)	Externalizing (BCFPI)	I	48	71.1 ( 6.6)	65.6 ( 9.0)	$F_{(1,90)} = 1.01$	0.32	0.28	C	48	70.8 ( 6.0)	66.8 ( 9.6)																																
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## **Conclusion**

We adapted a promising manualized CBT-based clinical program with available training (Williams et al., 2004), with the intent of providing a community-based service for aggressive children, and undertaking a rigorous evaluation of the real-world impact of the program.

The results of this RCT indicate that there are small positive effects on parent-rated outcomes for children allocated to the intervention group, but these effects are not statistically reliable, falling short of the medium size effects anticipated in the study.

Is there still potential for this to be a useful community-based intervention for families and children with aggressive behaviour? Issues such as shortages of or long waiting lists for clinic-based services, parental decision-making about participation, and an available training program are compelling. Factors such as regression to the mean (families call in crisis), overestimates of possible effects (based on clinical vs. community populations) and impact of self-regulatory difficulties may be important to consider in future work.

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# **Topical Discussion**

## **Applying Evidence-Based Practice in Real World Settings I: Does It Work? Can It Work? Voices from the Field**

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### **Introduction**

In the last decade, there has been an exponential increase in references to evidence-based interventions in the scientific literature (Hoagwood & Johnson, 2003). However, a disparity exists between the treatments used in research and in clinical practice as there are more than 550 named psychotherapies in existence; yet over 90% of these treatments have never been studied empirically (Kazdin, 2000; Kazdin & Weisz, 2003; Weisz, 2004). Similarly, the majority of psychotherapies that are provided in clinical settings are not supported by empirical research or have been found to be ineffective (Weisz et al., 1995). Although there are various treatments that have demonstrated efficacy in research settings, they have shown limited applicability in clinical settings. While studies have documented a moderate to large effect with regard to utilizing evidence-based treatments in university-based research settings, there appears to be little to no effect of using such psychotherapies in clinical settings (Smith & Glass, 1977; Weisz et al., 1995)

As a result of the discrepancy between the research development and actual practice of evidence-based psychotherapies, a team of expert psychotherapy researchers, with the support and input of the Center for the Advancement of Children's Mental Health (CACMH) at Columbia University, developed a unique training model in order to train practicing clinicians in the implementation of evidence-based interventions.

The training model developed at CACMH is geared to train clinicians from a variety of disciplines in utilizing evidence-based interventions for children and adolescents with anxiety, disruptive, depression, and post-traumatic stress disorders. The trainings consist of face-to-face workshops led by nationally recognized experts, followed by a year-long consultation and support period.

### **Topics Addressed**

This topical discussion presented the background of the development and research evidence of the four integrated psychotherapy manuals, and discussed and reviewed the actual development of these evidence-based methods from the perspective of researchers, psychotherapy developers, clinical supervisors, and clinic-administrators who were actually participating in these programs.

This discussion aimed to provide an educational and stimulating platform regarding the use of evidence-based interventions in clinical practice. Please note, this presentation was accompanied by another topical discussion (Goldman, this volume) which provided an in-depth review of evidence based practices in one treatment area (disruptive behavior disorders) as well as specific training, implementation and clinical practice issues.

The topical discussion highlighted the experiences of researchers, clinicians, and clinician administrators who employed evidence-based treatments in a research setting and in clinical practice. Some of the key issues to be discussed included the need for the adaptation of "user-friendly" manuals, whether or not the manualized therapy is flexible enough to adapt to individual cases, and issues pertaining to whether evidence-based practices have demonstrated efficacy beyond the realm of the research setting and into clinical practice.

An overview of the training model that was developed at the CACMH was presented. Specifically, the model aims to train clinicians in utilizing evidence-based interventions with children and adolescents through four psychotherapy manuals, which were developed to target anxiety, depression, post-traumatic stress, and disruptive behavior disorders.

One of the treatment manual developers for the disruptive behavior disorders intervention outlined the process of developing the psychotherapy manuals. Specifically, the process of adapting the evidence-based treatment into a “user friendly” format was addressed.

Next, a clinical director addressed the administrative issues surrounding the incorporation of evidence-based treatments into clinical practices. Specifically, the incentives and disincentives of providing clinical training in empirically supported treatments for fellow staff members was addressed. Issues discussed included clinician resistance and the feasibility of clinician fidelity. Additionally, the financial considerations in the implementation of evidence-based treatments were also discussed.

Finally, a clinician on the receiving end of the training in using the disruptive behavior intervention discussed the application of evidence-based interventions into clinical practice. Training issues, as well as patient outcome, were discussed.

## **Discussion**

From their experiences implementing the training model, the panel members discussed the outcomes of the dissemination of evidence-based intervention strategies. Topics covered included long-term clinician fidelity, patient outcome, and a general overview of the incentives and disincentives of incorporating empirically-based treatments into clinical practice. Future steps to facilitate the employment of such intervention tools into clinical practice were also addressed.

Specific issues addressed were geared toward the feasibility of employing evidence-based interventions in clinical practice. For example, one issue that permeated the discussion concerned whether manualized treatments could really address all children’s problems, given the complex nature of many clinical cases. Training issues were also addressed, with a focus on the duration of training needed for clinicians to successfully employ treatments and the feasibility of such trainings given the financial constraints within clinical settings. Overall, the panel/audience members were generally optimistic about employing evidence-based treatment.

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## Topical Discussion

# Applying Evidence-Based Practice in Real World Settings II: Hands-On Demonstration, Practice, and Discussion

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## Introduction

Over the past decade, research has supported the efficacy of a number of manualized treatment interventions for children and adolescents in comparison with no treatment or treatment as usual. However, their applicability on a community wide basis has been limited due to factors such as intervention research designs that are difficult to replicate in real world settings, reliance on specific, intensive clinical training and supervision, and focus on singular disorders. Further, many manualized efforts have been applied in an inflexible manner that were poorly adapted to existing clinical situations or client populations (Nock, Goldman, Wang & Albano, 2004). Due to these obstacles, many clinicians resist adopting these treatment methods.

However, there is much to recommend empirically supported, manualized interventions to practicing clinicians. Treatment manuals often include a focused, structured approach that may be carefully monitored for content and process fidelity. They also encourage both clinician and client to set clear, measurable goals with relevant session exercises and homework. Overall, they are well suited for brief, symptom focused, interventions. Recent studies have suggested that manual based treatments may be effective in both controlled research settings and in clinical practice (Addis & Waltz, 2002). Therefore a key issue is a delineation of steps that may be taken to improve the applicability of these empirically proven interventions. These include flexible application of manual content, individualizing and adapting intervention structure to individual client needs and situation, and addressing issues of severe pathology and comorbidity (Connor-Smith & Weisz, 2003).

In response to these challenges, four integrated treatment interventions (for anxiety, depression, disruptive and PTSD symptoms) were developed by a group of expert clinician/researchers convened by the Center for the Advancement of Children's Mental Health at Columbia University. The interventions, based on empirically supported intervention research, include a number of key modifications to traditional manual construction and training that incorporate recent thinking about manual development and training. Overall, the manuals were developed to reflect a uniform look and feel that allowed for modular, interchangeable parts that can "travel" between intervention manuals. For example, while working with a child displaying conduct problems with anxiety features, particular portions of the anxiety intervention could be readily inserted into the primary module addressing the child's conduct problems. Further, core intervention elements were "front loaded" in each of the manuals, allowing for flexible insertion of optional intervention strategies in a second treatment stage.

These modifications were rooted in work described by Chorpita et al. (2002), wherein feasibility, generalizability and cost-benefit, were analyzed to determine core intervention elements. This technique allows the clinician/researcher to better gauge the transportability and ultimate usefulness of a particular intervention. Further, flexibility is assured through use of a modular approach to intervention structure. For example relaxation training may be covered in a self contained, three session module, that is not essentially dependent on previous sessions. Once core intervention elements are defined, a path is cleared for the addition of optional, self-contained intervention elements. In our project, this permits a flexible degree of parent and family involvement, borrowing from other interventions and optional session elements that were related to clinical utility and trauma related symptoms.

This topical discussion reviewed the development of these manuals with particular reference to one of the interventions: the disruptive behavior disorders intervention. The participants helped to clarify the link between current research and intervention development, training issues and the modifications in manual content to improve treatment dissemination and clinical utility.

### **Topics addressed**

After a brief introductory overview and discussion, picking up the themes from the Topical Session I (Raishevich, this volume), this topical session offered demonstration and hands-on role play with audience members and faculty, using actual manual content. Then, the last period in this topical discussion focused on audience participants' reactions and responses to the demonstration and role play, and addressed lingering concerns initially addressed during the first topical session, but now informed by more experience with the actual interventions.

Key issues that were covered during the discussion included an introduction to the manual's modular two phase structure, and hands-on training by role play in two sessions, one session drawn from each of the two phases. The hands-on demonstration illustrated not just the intervention content, but also its flexibility in relation to co-morbidity, as well as the handling of unforeseen external events. Further, strategies for increasing client engagement and commitment were also demonstrated.

### **Discussion**

The application of evidence-based treatments in clinical practice is a topic of great interest among researchers and practitioners alike. Therefore, issues such as the flexible application of manual content, individualizing and adapting intervention structure to individual client needs and situation, and issues of severe pathology and comorbidity were addressed (Connor-Smith & Weisz, 2003).

Specifically, the audience/panel members addressed their remaining worries or concerns with regard to applying evidence-based interventions. Audience/panel members discussed the feasibility of applying evidence-based interventions in clinical settings. Moreover, the panel members/audience discussed how to adjust to the needs of the individual child within a manualized treatment approach. Another issue that was addressed was how to employ manualized approaches in such a way that they do not seem too scripted or stilted, and enhance the client/therapist relationship.

Overall, it appeared that clinicians, administrators, and researchers alike were generally positive about incorporating evidence-based treatments into their respective clinical practices, although the awareness of the aforementioned issues highlights further considerations to be applied to future dissemination research.

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