

Evidence-Based Treatments for Children and Adolescents with Disruptive Behavior Disorders

A Report of the
Children's Services
Evidence-Based Practice Advisory Committee

Maine Department of Health and Human Services,
Office of Child and Family Services

August 2008

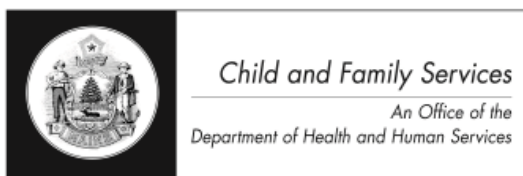
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Table of Contents

Children’s Services Evidence-Based Practice Advisory Committee.....	iii
Acknowledgements	v
Mission & Purpose.....	1
Background	1
Methods.....	2
Determining the Conditions for Investigation.....	3
Levels of Evidence Defined.....	3
Treatment and Implementation Review Process.....	4
Findings.....	5
Information for Families	5
Treatments for Disruptive Behavior Disorders (excluding Attention Deficit / Hyperactivity Disorder).....	8
Report References	14
Appendix A: Implementation Reviews	15
Functional Family Therapy (FFT)	16
Incredible Years	19
Multisystemic Therapy (MST)	24
Parent-Child Interaction Therapy (PCIT)	27
Parent Management Training – Oregon (PMTO)	30
Appendix B: Literature Reviewed for Level of Evidence Reviews.....	32
Review Articles.....	32
Anger Control Training.....	32
Collaborative Problem Solving	33
Coping Power	33
Functional Family Therapy.....	33
Group Assertiveness Training.....	34
Incredible Years	34
Multidimensional Treatment Foster Care for Adolescents.....	35
Multisystemic Therapy	35
Parent-Child Interaction Therapy.....	36
Parent Management Training-Oregon	37

**Children's Services Evidence-Based Practice
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* Associate Members are non-voting representatives to the Committee. They receive meeting minutes and information but do not regularly attend meetings. The Committee seeks consultation from Associate Members on specialized topics.

Acknowledgements

Many individuals and organizations contributed their expertise, time, and perspectives in the development of this report. Committee members and contributors represented an array of stakeholders, including:

- Parents
- Service providers and provider organizations
- Youth advocacy organizations
- Medical providers
- Faculty and staff of the University of Maine and University of Southern Maine
- State agency staff from the Office of Child and Family Services, the Department of Education, the Office of Substance Abuse, and the Department of Corrections

Special acknowledgement is extended to Charles Tingley, Ph.D. of Northeast Occupational Exchange, Cynthia Dodge, Ph.D. of Spurwink Services, and Kennebec Behavioral Health for sharing their invaluable perspectives on implementing evidence-based practices in their organizations.

This report represents the Committee's diligent efforts to identify, rate, and describe available treatments that demonstrate outcomes for treating the symptoms of Disruptive Behavior Disorders in youth. This work was accomplished through a series of regular meetings, considerable discussion, research, and consultation with practitioners and researchers in the field. The final product represents the consensus reached by Committee members through this deliberate and engaged process.



Mission & Purpose

The Children's Services Evidence-Based Practice Advisory Committee advises Maine's Office of Child and Family Services (OCFS) on proven treatment practices used in addressing the behavioral health disorders of childhood.

The Committee reviews evidence-based and practice-based treatments and assesses practices for:

- Level of empirical evidence
- Outcomes
- Effect size
- Applicability to Maine's children
- Ease of dissemination
- Fidelity monitoring
- Sustainability

Background

The Children's Services Evidence-Based Practice Advisory Committee ('the Committee') formed in 2007 as a subcommittee of the Department of Health and Human Services (DHHS) Evidence-Based Practice Coordinating Committee. This subcommittee was charged with convening a standing workgroup to research, evaluate, and report to DHHS on evidence-based practices and treatments specific to the behavioral health conditions in childhood.

A broad base of stakeholders convened the first regular meeting of the Committee in April of 2007. Since this initial convening, the Committee has met on a bi-weekly or monthly basis and participated in readings and material reviews outside of meetings.

Great strides have been made in the scientific study of treatments for childhood behavioral health conditions. However, considerable challenges remain in the successful and sustainable dissemination of evidence-based treatments. In recognition of these factors, the Committee organized its work around several key questions:

- *Which childhood mental illnesses have significant public health impact in Maine?*
- *What treatments for these childhood mental illnesses have the strongest scientific support?*
- *What evidence-based treatments are the most feasible to disseminate in Maine?*
- *What are the barriers to dissemination and what are effective methods to overcome these barriers?*
- *How is treatment fidelity ensured for evidence-based practices?*
- *What are the best methods to measure and track outcomes of children receiving evidence-based treatments?*

In its initial phase of work, the Committee examined the work of other states and mental health

organizations in order to establish a commonly understood definition of evidence-based practice (EBP). Following a thorough review of the literature, the Committee adopted the American Psychological Association's definition of EBP:

“Evidence-Based Practice [in psychology] is the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preference,” (Levant, 2005, p. 5)

After establishing a common understanding of the definition of EBP, the Committee set goals and objectives for its work in three areas:

1. **Determine the conditions meriting investigation:** The Committee will determine behavioral health conditions for which to investigate available evidence-based treatments. Selection will be determined by prevalence, severity, and public health cost. Other considerations in prioritizing selection may be determined at-will by the Committee.
2. **Treatment Review:** The Committee will develop a systematic process to determine the level of empirical support for treatments. This review process will help determine which treatments have the best opportunity to produce positive outcomes for children in Maine.
3. **Implementation Review:** The Committee will research and summarize the implementation and dissemination processes for the treatments having the highest level of empirical support. Training, supervision, costs, and fidelity monitoring will be reviewed in this process.

Methods

The Committee's research and review methods are linked to the field's formative efforts to evaluate and define evidence-based practice in mental health. Systematic identification and evaluation of evidence-based practices began in earnest during the 1990s in response to growing interest in treatment outcomes and cost containment in the context of managed care. As part of this movement, the American Psychological Association (APA) formed the Task Force on Empirically Supported Psychosocial Interventions for Children to specifically review treatments for children. The Task Force's seminal review articles were published in 1998 and remain the benchmark from which further reviews have developed (Brestan & Eyberg, 1998; Lonigan, Elbert, & Johnson, 1998). Through Division 12, the APA continues to examine empirically supported treatments and disseminate information to the public¹.

The Committee organized its evaluation around particular problem behaviors and diagnoses in recognition of the fact that the research literature is largely structured along these parameters. However, the Committee has found that for some treatments, subjects are recruited and outcomes are measured by symptom profiles and not solely a diagnosis. Therefore, the findings of this review may also be

¹ (<http://www.apa.org/divisions/div12/cppi.html>)

appropriate for children and youth who do not have a formal diagnosis, but have some of the problem behaviors that place them at-risk for the diagnosis.

Determining the Conditions for Investigation

The Committee reviewed the public health impact of various childhood mental health conditions, excluding Attention-Deficit/Hyperactivity Disorder (ADHD), in order to prioritize the conditions meriting immediate attention. Public health impact was measured by the factors of prevalence, cost, and severity. Based on these factors, Disruptive Behavior Disorders, was selected for the Committee's pilot review. ADHD was excluded due to its unique symptom profile and the use of pharmacological treatment, which the Committee felt merits a separate review.

According to the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV-TR), the Disruptive Behavior Disorders category includes the diagnoses Conduct Disorder, Oppositional Defiant Disorder, and Disruptive Behavior Disorder NOS (Not Otherwise Specified). These conditions are generally characterized by repetitive and serious patterns of aggression, serious rule violation, antisocial behavior, deceitfulness, theft, property destruction, defiance, disobedience, and hostile behavior toward authority figures.

Recent studies indicate that Disruptive Behavior Disorders account for a relatively large proportion of the total mental health diagnoses among adolescents. For example, 6.5% of youth carried a diagnosis in this category in one study of an urban population (Roberts, Roberts, & Xing, 2007). Furthermore, lifetime prevalence for Oppositional Defiant Disorder has been estimated at 10.2%; this condition may also predict comorbidity with disorders such as substance abuse, anxiety, and depression (Nock, Kazdin, Hiripi, & Kessler, 2007). The relatively high prevalence rate of Disruptive Behavior Disorders and the associated risk of comorbidity have a significant financial impact on an already overtaxed health care system. For instance, one study estimated the additional public costs per child diagnosed with Conduct Disorder as exceeding \$70,000 over seven years (Foster & Jones, 2005). Children in the Disruptive Behavior Disorders diagnostic category are often high-end service users involved in multiple systems, including special education, mental health, residential treatment, juvenile justice, and substance abuse treatment. Effective and timely treatment in the community is essential in improving the outcomes for these children and ensuring efficient use of public resources.

Levels of Evidence Defined

Following in the footsteps of other states' and systems' evidence-based practice reviews, the Committee developed a scale to guide assignment of a "Level of Evidence" to represent the strength of a treatment's scientific evidence. The first widely disseminated rating scale was developed in the 1990s for the APA Task Force on the Promotion and Dissemination of Psychological Procedures. Known as the "Chambless Criteria", this rating scale is the standard by which scales and review systems have been developed by many organizations (Chambless et al., 1996; Task Force on Promotion and Dissemination of Empirically-Validated Psychosocial Treatments, 1995).

The Committee reviewed existing rating scales from the following organizations:

- American Psychological Association
- Hawaii Child and Adolescent Mental Health Division Evidence-Based Services Committee
- Council for the Prevention of Child Abuse and Neglect
- California Evidence-Based Clearinghouse for Child Welfare
- U.S. Department of Education
- Helping America's Youth
- Office of Juvenile Justice and Delinquency Prevention
- Oregon Department of Public Health

Based on these precedents, the Committee created a five-level rating scale ranging from best support (Practices Based on Scientific Evidence) to least support (Evidence of Harm)². Following systematic reviews of the literature, treatments are rated for their level of empirical support according to pre-determined criteria. To qualify for a Level of Evidence rating, treatments must:

- Be based on sound theory;
- Have a treatment manual to guide replication; and
- Have outcome studies published in peer-reviewed journals.

This rating format is within the guidelines developed by the DHHS Evidence-Based Practice Coordinating Committee.

Treatment and Implementation Review Process

The Committee's evaluation process began by examining review articles published between 1997 and 2007 on effective treatments for Disruptive Behavior Disorders³. Treatments evaluated across the majority of the review articles were selected for more intensive review. Programs strictly focused on prevention were not reviewed, as the Committee's focus is on treatment. Committee members reviewed and coded the primary research literature in each identified treatment using a formal form and checklist drafted for this purpose. A Level of Evidence was assigned to each treatment based on the reviews and discussion within the Committee. The Committee strived to reach consensus through discussion in this decision-making process.

The Committee strongly believes that its role in improving Maine's system of care for children and families includes more than creating and distributing lists of scientifically proven treatments. In light of this belief, the processes and requirements for implementation and dissemination of selected EBPs are also examined as part of the review process. It is the Committee's opinion that stakeholders can make the most fitting decisions regarding future implementation efforts with information on the infrastructure and costs associated with these programs. Each intervention is distinct and requires careful consideration as to its "fit" with the needs and culture of the children and families served, as well as with the resources and culture of the implementing agency.

² The rating scale is provided on page 7 of this report

³ A list of these review articles is provided in Appendix B.

The Committee decided to examine the implementation factors of interventions rated at Levels I(a) and I(b); however, future reviews may vary in this regard. Activities included review of program manuals and materials, discussions with developers, consultation with other states implementing the program(s), and conversations with Intermediary Purveyor Organizations (IPOs), which are entities authorized by the intervention's developers to coordinate implementation activities. The Committee also invited three Maine providers to speak to the Committee regarding their experiences implementing evidence-based treatments in the community. Brief summaries of implementation factors for these selected interventions can be found in Appendix A of this report.

Findings

The Level of Evidence ratings and supporting information from the Committee's review are listed Table 1 of this report. The following information is provided for each intervention:

- Treatment outcomes
- Effect size⁴
- Age of the population served
- Setting, duration, and frequency of treatment
- Required practitioner credentials
- Availability of fidelity measures

Virtually all studies of EBP, including this review, have used single treatment models as the unit of analysis (Garland, Hawley, Brookman-Frazee, & Hurlburt, 2008). Recent research efforts have broadened the discussion on EBP by identifying the so-called 'common elements' of evidence-based treatments (Chorpita, Daleidin, & Weisz, 2005; Garland et al., 2008). It is hoped that distilling effective treatments into their "active ingredients" may facilitate implementation of EBPs (Garland, et al., 2008). The Committee views this integrated, complementary approach to EBP as an intriguing hypothesis that awaits further review and testing.

Since the Committee is strictly advisory in nature, it is not within its purview to make specific policy recommendations or advocate for particular practices. However, it is hoped that the Committee's findings and the information in this report will be used to inform families, youth, policymakers, advocates, and other stakeholders about effective treatments as Maine continues to build a strong system of care for children and families.

Information for Families

Finding the most appropriate treatment for a child can be an overwhelming task for families. The information on available evidence-based treatments is often very technical and geared toward professionals and academic researchers, not families. Families have unique needs in evaluating treatment options that call for special attention and information. The National Alliance on Mental Illness

⁴ Effect size refers to the strength of the intervention's effect; namely, how big the impact of the intervention staff was on the treatment's outcomes.

(NAMI) has published an informative and helpful guide for families on evidence-based practices, “Choosing the Right Treatment: What Families Need to Know About Evidence-Based Practices.” The guide is free and available for download at: <http://www.nami.org/>.



Levels of Evidence

To qualify for a rating, treatments must:

- Be published in a peer reviewed journal
- Have a sound theoretical basis
- Have a manual

Level 1: Practices Based on Scientific Evidence

Must include multiple (2 or more) Randomized Control Trials (RCTs) by *different investigators*. Must demonstrate efficacy through statistically significant outcomes as compared to no-treatment control group and/or another established treatment.

Level 1(a): At least **two** of the RCTs were conducted in usual care or practice settings.

Level 1(b): At least **one** of the RCTs was conducted in a usual care or practice setting.

Level 1(c): **None** of the RCTs were conducted in usual care or practice settings.

Level 2: Promising Practices

RCTs may be conducted by same investigators and conducted in usual care **OR** academic settings¹. Must demonstrate efficacy through statistically significant outcomes as compared to no-treatment control group and/or another established treatment.

Level 2(a): At least **two** RCTs.

Level 2(b): At least **one** RCT.

Level 3: Emerging Practices

Must demonstrate efficacy through statistically significant outcomes.

Level 3(a): At least **one controlled trial** (may be non-randomized) in a usual care **OR** academic setting.

Level 3(b): **Pre-post design** (no control group).

Level 4: Neutral

No evidence of positive outcome or harm.

Level 5: Harm

No evidence of positive outcomes and evidence of harm.

¹ Academic setting refers to University research clinics outside of the usual care or practice setting.



Table 1: Treatments for Disruptive Behavior Disorders (excluding Attention Deficit / Hyperactivity Disorder)

Treatment	Outcomes Measured	Effect Size [^]	Age	Setting	Duration	Frequency	Practitioner Credentials	Fidelity Tools
LEVEL 1: Practices Based on Scientific Evidence								
Level 1(a)								
Functional Family Therapy (FFT)	Criminal activity, Family interaction	*	11-18	Home, Clinic, School, Community	8-12 sessions is the average, with up to 30 sessions possible.	Weekly	M.A., Ph.D.	Yes
Incredible Years Parent Training (BASIC & ADVANCE)	Child: Aggression, oppositional, and impulsive behaviors at home and school; cognitive problem-solving skills; social competence; conflict management skills.	.28-.91 (Small – Large)	Parent Training: 2-12	Clinic	Child Training: 18-22 sessions	Weekly	B.A., M.A., Ph.D., Teacher, School Counselor	Yes
Incredible Years Child Training (Dina Dinosaur Curriculum)			Child Training: 2-8		Parent Training: 12-14 sessions (BASIC); 8-10 sessions (ADVANCE)			

Treatment	Outcomes Measured	Effect Size [^]	Age	Setting	Duration	Frequency	Practitioner Credentials	Fidelity Tools
Incredible Years Teacher Training (Classroom Management)	Parent: Competence in parenting; affect; depression; marital satisfaction; involvement with child's teacher; positive parent commands and use of effective discipline.							
Multisystemic Therapy (MST)	Criminal activity, family relations, behavior problems, peer relations, psychiatric symptomatology, out-of-home placement.	.26-1.69 (Small – Large)	10-18	Home, Clinic, School, Community	4 months	Weekly sessions; Availability of clinician to the family 24 hours per day, 7 days per week.	M.A., Ph.D.	Yes
Parent-Child Interaction Therapy (PCIT)	Child: Disruptive behavior at home and school, adaptive classroom behavior, interpersonal social competence.	-.34-2.06 (Small – Large)	2-6	Clinic	Not time limited – Therapist and family determine a successful conclusion of treatment. A full course of treatment for most families is 10-16 sessions**.	Weekly	M.A., Ph.D.	Yes

Treatment	Outcomes Measured	Effect Size ^a	Age	Setting	Duration	Frequency	Practitioner Credentials	Fidelity Tools
	<p>Parent: Ability to control child's behavior, stress level, depression, satisfaction with treatment, discipline methods.</p> <p>Other: Quality of parent-child interaction, parent-child relationship, generalization of treatment effects to siblings.</p>							
Parent Management Training-Oregon (PMTO)	Disruptive behavior, positive parenting skills, internalizing & externalizing behavior, academic success, likelihood of substance abuse.	.5-1.6 (Medium – Large)	4-12	Clinic	Varies according to family needs	Weekly sessions with parents, regular telephone contact with family.	M.A., Ph.D.	Yes

LEVEL 2: Promising Practices

Treatment	Outcomes Measured	Effect Size ^a	Age	Setting	Duration	Frequency	Practitioner Credentials	Fidelity Tools
Level 2(a)								
Coping Power [†]	Delinquency, substance use, behavior at school.	*	4 th -6 th grade (Age not available)	School	Child component: Approximately 18 individual sessions Parent component: 16 group sessions	Weekly	M.A./Ph.D.	*
Multidimensional Treatment Foster Care for Adolescents (MTFC-A)	Delinquency rate, criminal activity, educational engagement, days spent in residential treatment or incarceration.	.00-.77 (None to Large)	12-17	Home, Clinic	6-9 months	Youth: Weekly individual treatment. Foster Parents: Daily telephone contact with program staff, weekly supervision & support meetings.	Required credentials for case manager and therapist unknown. Foster families are part of treatment team and receive specialized training.	Yes

Treatment	Outcomes Measured	Effect Size ^a	Age	Setting	Duration	Frequency	Practitioner Credentials	Fidelity Tools
Problem-Solving Skills Training (PSST)	Antisocial behavior, psychosocial functioning (home, school & community), internalizing and externalizing behaviors, parent stress level, parental dysfunction, family functioning.	*	7-13	Clinic	20-25 sessions	Weekly	M.A., Ph.D.	Yes
Level 2(b)								
Anger Control Training	Mild aggression, self-control, social problem-solving skills.	*	6 th -8 th grade (Age not available)	School, Clinic, Residential treatment	10 sessions; Group format	Weekly or Biweekly	*	*

Biological / Aftercare Parents:
 Weekly family therapy, regular structured visits with child.

Treatment	Outcomes Measured	Effect Size [^]	Age	Setting	Duration	Frequency	Practitioner Credentials	Fidelity Tools
Group Assertiveness Training	Assertive skill level, aggressive behavior.	*	8 th & 9 th grade (Age not available)	In-School, Group sessions	4-8 weeks, depending on frequency.	1 or 2 group sessions per week	Can be led by trained peer leader or professional counselor.	*

LEVEL 3: Emerging Practices

Level 3(a)

Collaborative Problem Solving	Oppositional Defiant Disorder-related behaviors, parent role functioning	1.19 (Large, but based on a single study)	4-12	Clinic	7-16 weeks	Weekly sessions with parent. Child included at therapist's discretion.	M.A./Ph.D.	Yes
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LEVEL 4: Neutral

None

LEVEL 5: Harm

None

* - Information not available in published reports.

[^] - Effect size is given as a range of Cohen's d values when provided in the reviewed studies or when converted from η^2 .
.20=Small Effect, .50=Medium Effect, .80=Large Effect.

** - Herschell, A. D., Calzada, E. J., Eyberg, S. M., & McNeil, C. B. (2002). Parent-child interaction therapy: New directions in research. *Cognitive & Behavioral Practice*, 9, 9-16.

+ - Tested with boys only.

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Appendix A: Implementation Reviews

Implementation is the key challenge facing successful and sustainable dissemination of evidence-based practices (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Evidence-based treatments should be implemented with fidelity to the practice model and the culture of the community in order to ensure success and sustainability. In recognition of the importance of implementation in the evidence-based practice environment, the Committee completed systematic reviews of the factors needed to implement treatments rated at Level 1(b) or above. Treatments reviewed include:

- Functional Family Therapy
- Incredible Years
- Multisystemic Therapy
- Parent-Child Interaction Therapy
- Parent Management Training-Oregon



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Implementation Review: Functional Family Therapy (FFT)

Length of Single Course of Treatment

8-12 one-hour sessions, with up to 30 sessions possible.

Initial Provider Qualifications & Training

Educational Requirement - Master's or Doctoral degree.

Prerequisite Experience - No specific prerequisites noted by FFT; however, agencies may have their own prerequisites.

Required Initial Training - Training in the full model is exclusively provided in three phases over a three-year period by FFTInc. the purveyor organization. FFTInc. trains and certifies teams of three to eight clinicians. Training in Phase One includes: Two-day on-site clinical training, on site training in the MIS System, and a two-day off-site clinical team training.

Availability of Training - All training is offered by and arranged through FFTInc.'s offices in Seattle. Training is done by team and arranged according to the schedules of the agency and FFTInc.

Fidelity Monitoring Process

Supervision

Type	Frequency	Cost
PHASE ONE (YEAR 1)		
Phone consultation	Weekly with outside assigned consultant. Consultant changes with each Phase. Consultation is organized around review of electronic case notes and videotaped sessions.	\$32,000 plus travel
On-site consultation	2 per year	
Consulting with off-site supervisors	As needed via email and/or phone.	
Externship for site Supervisor	Ongoing	
PHASE TWO (YEAR 2)		
Site Supervisor training	Two, 2-day trainings and one, 1-day follow-up training (all off-site).	\$12,000 plus travel
Phone consultation	Weekly	
PHASE THREE (YEAR 3)		
Team and Supervisor training	One, 1-day training (off-site)	\$1,000 plus travel
Phone Consultation	Weekly	

Certification Process

FFT Inc. certifies groups of three to eight clinicians as an FFT site. Sites are certified rather than individual clinicians. In order for an agency to undertake the training process, an application for site certification must be submitted and accepted by FFT Inc. This requires submission of agency description, staffing patterns, treatment philosophy, commitment to the training, and other information. If the application is accepted, a mutual commitment to the three-phase, three-year training process is made. FFT sites must show adherence to and competence in the FFT model for certification. Training, consultation and data collection is exclusively provided by FFT Inc. Once the site is certified by FFT Inc. and a Supervisor has completed the required externship and trainings, the Supervisor may train others within the site in FFT.

Fidelity measures, tools & assessments

- ☒ **Videotape Review**
- ☒ **Consultation:** Weekly phone consultation over three years. On-site consultations 1-2 times per year over three years.
- ☒ **Written measures, assessments and/or forms:** FFT Inc. provides a Web-based Management Information System (Clinical Services System – “CSS”) in which to enter all case notes, forms and assessments are entered. Assessments required: OQ-45.2, Y-OQ2.01, and YOQ SR. License for assessments must be purchased from American Professional Credentialing Services in order to copy forms.
- ☒ **Standardized treatment materials:** Treatment manual.
- ☒ **Other:** CSS system prompts for pre-, post- and on-going assessments, and monitors treatment outcomes in each phase. Listserv available.

Trainer / Consultant / Mentor

All trainings and consultants are provided through FFT Inc. during the three phases of implementation. Supervisors in certified sites are permitted to provide training only within their site.

Associated Costs

See training and consultation fees outlined above in Supervision section.

Treatment manual: \$12.00 per clinician.

The 90-day treatment costs range between \$1,600 and \$5,000 for an average of 12 home visits per family (Alexander et al., 1998). Costs vary and are dependent on cost of wages and benefits.

For More Information

<http://www.fftinc.com>

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Implementation Review: Incredible Years

Length of Single Course of Treatment

18-22 sessions.

Initial Provider Qualifications & Training

Educational Requirement -

- **Parent or Child Dinosaur Group Leader:** Education and/or experience in teaching, social work, nursing, psychology or psychiatry.
- **Certified Basic or Advance Parent Group or Child Dinosaur Group Leaders:** Education and/or experience in teaching, social work, nursing, psychology, or psychiatry.
- **Certified Classroom Dinosaur Group Leader:** Education as a teacher or school counselor.
- **Certified Group Leader of Classroom Management:** Education and accreditation as a teacher, school counselor, psychologist OR certification as a BASIC Parent Group Leader.

Prerequisite Experience -

- **Parent or Child Dinosaur Group Leader:** Child development courses.
- **Certified Parent Group or Child Dinosaur Group Leaders:** Child development courses.

Required Initial Training -

- **Parent or Child Dinosaur Group Leader:** Authorized three-day Incredible Years (IY) training workshop. Self-study with IY manuals and videotapes.
- **Certified BASIC Parent Group or Child Dinosaur Group Leaders:** In addition to the initial three-day introductory training, attendance at an authorized two-day Incredible Years (IY) training workshop with a Certified Mentor or Certified Trainer. Self-study with IY manuals and videotapes.
- **Certified Classroom Dinosaur Group Leader:** Authorized three-day IY training workshop.
- **Certified Group Leader of Classroom Management:** Authorized IY Teacher Classroom Management Group Leader Training.
- **Certified ADVANCE Parent Group Leader:** Authorized 1-day workshop offered by a Certified Mentor or Certified Trainer.

Availability of Training

Training offered regularly in Seattle and internationally in the United Kingdom and Norway. Training can be provided at an agency site with 8-10 participants. Training dates, locations, costs, and listings of Certified Mentors and Trainers are listed on the IY website: <http://www.incredibleyears.com>.

Fidelity Monitoring Process

Supervision

Type	Frequency	Cost
Phone consultation with Certified/Accredited Mentor or Trainer	Minimum of 2 per year for Certification	\$150 per hour
Videotape review by Certified/Accredited Mentor or Trainer	Minimum of 1 per year for Certification	\$75 per hour
Onsite consultation with agency by Certified/Accredited Mentor or Trainer	Minimum of 1 per year for 2 years following initial training	\$1500 per day + travel
On-going group peer review with other provisional Group Leaders	Highly recommended but not mandatory for the year following initial training.	N/A

Certification Process - All Certifications are managed by the developer of Incredible Years at the University of Washington.

- **Certified/Accredited Group Leader:** Group Leaders are eligible to become a certified following the first year of training and supervision. Group Leaders become certified once they have demonstrated competency in facilitating groups with fidelity to the IY protocol. Requirements to attain certification include: Leading two or more complete IY groups using the session protocols; participation in at least one on-site consultation session; videotape review; supervision with mentors and peer review as prescribed; and successful completion of session protocol checklists, self-evaluation, and peer evaluation forms.

Certification is specific to the type of group in which the candidate was initially trained. Certification types include: Parent Group Leader-BASIC, Dina Dinosaur Child Program Group Leader, Classroom Dinosaur Group Leader, Group Leader of Classroom Management, and Parent Group Leader-ADVANCE. Education requirements and specific training requirements vary by type of group. In general, candidates must satisfactorily complete two groups or workshops, with the exception of Classroom Dinosaur Leader.

- **Certified/Accredited Mentor:** Mentors may offer authorized IY training workshops in their agencies or geographic area and provide consultation and supervision to Group Leaders. Mentors

also play a vital role in ensuring model fidelity and sustainability by working with agencies to determine the correct IY program for the population, choosing appropriate staff for training, and assisting with logistical support and recruitment. Candidates must show excellent leadership abilities and aptitude for training larger groups of professionals. Steps in the certification process are similar across the IY programs.

- **Certified/Accredited Trainer:** This is the final step in the IY certification ladder. A Certified/Accredited Trainer is authorized to provide training workshops to Group Leaders and conduct research and consultation regarding implementation of IY. Steps in the certification process are similar across IY programs.

Fidelity measures, tools & assessments

- ☒ **Videotape Review**
- ☒ **Consultation:** Phone, email, on-site.
- ☒ **Written measures, assessments and/or forms:** Participant evaluations, session protocol checklists, Group Leader self-evaluations.
- ☒ **Standardized treatment materials:** Manuals; handouts; DVDs/videos; books; audio CD's; group materials such as puppets, magnets, stickers, posters & music (not required).
- ☒ **Other:** Listserv, E-Newsletter.

Trainer/Consultant/Mentor

Qualifications -

- **Certified/Accredited Mentor:** Graduate degree in teaching, nursing, social work, psychology, or psychiatry. Certification as a Group Leader in the corresponding IY program, successful facilitation of multiple groups. Participation in a consultation day led by a Certified/Accredited Trainer. Nomination by letter from a Certified/Accredited Mentor or Trainer. Submission of a recent (within 9 months) videotape for review.
- **Certified/Accredited Trainer:** Certification as a Group Leader and Mentor in chosen IY program. Consistently outstanding evaluations in role of Certified/Accredited Mentor. Completion of competent videotape reviews for Group Leader certification. Successful completion of numerous Mentor workshops. Knowledgeable about research and evaluation related to IY, as well as other empirically supported interventions for children. Agency of employment supports certification as a Trainer, including permission to offer training and consultation outside of the agency. Graduate degree in related field with extensive clinical and research experience.

Training -

- **Certified/Accredited Mentor:** The candidate must attend one or more training workshops as an observer. After observing, the candidate co-trains a workshop with a Certified/Accredited Trainer. The Trainer will decide when candidate is ready to facilitate a workshop alone. Once cleared to train alone, the candidate provides a workshop in his or her agency or locale. The candidate must submit videotaped segments, participant evaluations, and attendance lists of this workshop to IY for review. The candidate then observes and co-leads a supervision session for Group Leaders with a Certified/Accredited Mentor. The candidate must also attend at least one consultation focusing on videotape review of Group Leader sessions. Finally, the candidate must attend an IY Mentor Training session; provisional certification is granted upon completion. Certified/Accredited Mentors must attend IY “Mentor Update” workshops once every five years.
- **Certified/Accredited Trainer:** Certified/Accredited Mentors are automatically awarded “provisional Trainer” status, which continues for at least one year. Certified/Accredited Trainer status is awarded pending excellent workshop and consultation evaluations, periodic videotape review, and ongoing and timely submission of IY documentation. Certified/Accredited Trainer status can be revoked by IY if Trainer does not fulfill responsibilities.

Associated Costs

One-time and ongoing costs, including materials, training, and consultation fees, are listed in detail on the Incredible Years website. A cost planning spreadsheet is also provided at: http://www.incredibleyears.com/WI/hosting_costplanning.asp.

Cost-effectiveness estimates for Incredible Years within and across program components are published in the literature based on costs and salary estimates from the developer (Foster, Olchowski, & Webster-Stratton, 2007).

Estimated cost per treatment episode (Barth et al., 2005):

- Parent Training: \$600
- Child Training: \$240 (including videos)

Form More Information

<http://www.incredibeyears.com>

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Implementation Review: Multisystemic Therapy (MST)

Length of Single Course of Treatment

Four months, on average. Services are delivered in the family's natural environment (home, school, and community).

Initial Provider Qualifications & Training

Educational Requirement - Clinicians must hold a Master's degree or higher. Clinical supervisors must be Ph.D. level clinicians.

Prerequisite Experience - None noted.

Required Initial Training - All trainings are provided by the purveyor, MST Services. Initial 5-day orientation training is required for clinicians. Supervisors may attend an optional two-day "Jump Start" training.

Availability of Training - Delivered on-site or offsite at various locations. Trainings are offered regularly in New England states, South Carolina, and Colorado. Jump Start trainings for supervisors offered in South Carolina.

Fidelity Monitoring Process

Supervision

Type	Frequency	Cost
Program Start-Up Services: Technical Assistance and materials to develop a program description, budget and implementation timeline.	As requested	\$10,000 (excludes travel)
Phone consultation (required)	Weekly	Fees included in annual agency license fee. Travel expenses extra.
Quarterly on-site booster trainings (required)	4 times per year	
Quality Assurance Technical Support	As needed	
Therapist session audio-tape coding	Optional	\$110 per 45-minute tape.

Certification Process - MST Services can certify experienced MST clinicians as MST Consultants. Certification enables Consultants to provide technical assistance and quarterly booster trainings.

Fidelity measures, tools & assessments

- Videotape Review**
- Consultation:** Weekly phone consultation required. Email and onsite consultation offered as needed with additional expense.
- Written measures, assessments and/or forms:** The Therapist Adherence Measure (TAM) is a fidelity measurement tool required for use with all families. Data collection for a single MST Team is required through MST Institute (MSTI) with an additional \$5000 fee. Agencies with two or more MST teams may elect to collect their own TAM data.
- Standardized treatment materials:** Therapist treatment manual.
- Other:**

Trainer / Consultant / Mentor

See 'Certification Process'.

Associated Costs

Licensing - A site license through MST Services is required.

Annual agency license fee: \$4000 minimum per agency (regardless of the number of teams).

Annual team license fee: \$2500 per team.

Annual Program Support - Required through MST Services.

Single team: \$26,000.

Two teams: \$20,000 per team.

Three or more teams: \$17,000 per team.

Program Start-Up / Training - Required. Excludes travel.

Program Development fee: \$10,000 (regardless of number of teams).

Orientation training: On-site – Included in cost. South Carolina - \$750 per attendee and subtract \$8,000 from total fee.

Supervisor Jump Start training (optional): \$1,000 per person (on-site).

In the juvenile offender population, MST has been calculated to save \$2.64 for every \$1.00 spent, with a total benefit of \$9,316 per child/family (Aos, Lieb, Mayfield, Miller & Pennucci, 2004).

For More Information

<http://www.mstservices.com>

References

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Implementation Review: Parent-Child Interaction Therapy (PCIT)

Length of Single Course of Treatment

Average number of sessions is 14, but generally ranges from 10 to 16 sessions. Treatment is not time-limited and can vary depending on parental skill acquisition.

Initial Provider Qualifications & Training

Educational Requirement - Master’s or Doctoral degree in Social Work, Psychology, or a related field.

Prerequisite Experience - Clinical experience in treating children and families and licensure as a mental health provider.

Required Initial Training - 5-day/40 hour training.

Availability of Training - Training is offered regularly at the University of Florida, Cincinnati Children’s Hospital, and the University of Oklahoma.

Fidelity Monitoring Process

Supervision

Type	Frequency	Cost
Videotape review	One or more tapes for first five full cases	Unknown
Live coaching by experienced clinician	At least once in the first six months, afterwards as needed	
Consultation by PCIT trainer/coach (phone, in person, or videoconference)	Monthly	
Remote Real-Time Supervision through Internet (optional)	Unknown	Equipment costs plus consultant fees. Consultants in Oklahoma City currently offer Remote Real Time Supervision.

Type	Frequency	Cost
Annual PCIT conference (optional)	Annual	Travel and expenses.

Certification Process - None described by the developer.

Fidelity measures, tools & assessments

- Videotape Review**
- Consultation:** Phone, Remote Real-Time (web-based), on-site.
- Written measures, assessments and/or forms:** Eyberg Child Behavior Inventory (ECBI), Parenting Stress Index (PSI), Dyadic Parent-Child Interaction Coding System (DPCIC).
- Standardized treatment materials:** PCIT Treatment Manual w/ session protocols, coding manuals (abbreviated and comprehensive versions available at <http://www.PCIT.org>).
- Other:** Listserv.

Trainer / Consultant / Mentor

Qualifications - Certification as a PCIT Trainer/Consultant in Washington State requires successful completion of at least ten PCIT cases with 120-200 hours of direct coaching received.

Training - Attendance at annual PCIT conference is recommended.

Associated Costs

Specialized equipment and infrastructure are required to provide the service, including adjoining therapy and observation rooms with a one-way mirror, video recording system, and wireless communication (“bug-in-the-ear”) system. Installation costs vary.

Training and consultation costs vary by site. Cincinnati training sessions are \$750 per person plus travel. University of Florida training workshop is \$3000 plus travel.

Average cost per treatment episode is estimated at \$3,638 per family (Barth et al., 2005). According to an analysis conducted by the Washington State Institute for Public Policy, PCIT saves \$3.64 for every \$1.00 of social service cost (Aos, Lieb, Mayfield, Miller & Pennucci, 2004).

For More Information

<http://pcit.php.ufl.edu>

<http://devbehavpeds.ousc.edu/pcit.asp>

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**Implementation Review:
 Parent Management Training – Oregon (PMTO)**

Length of Single Course of Treatment

Twenty (20) sessions, but can vary widely depending on the needs of the family.

Initial Provider Qualifications & Training

Educational Requirement - None noted.

Prerequisite Experience - None noted.

Required Initial Training - Approximately 18 days of training over 12 months. Initial training consists of six, three-day workshops focusing on core content and processes.

Availability of Training - Training and consultation is provided by the purveyor, Implementation Sciences International Inc., a division of the Oregon Social Learning Center. ISII works with the implementation site to assess the organization’s capacity to sustain PMTO. The site must have a commitment to long-term implementation of PMTO.

Fidelity Monitoring Process

Supervision

Type	Frequency	Cost
Phone Consultation	Once per week	Included in total training package costs – See Associated Costs section below.
Videotape review	Feedback required for minimum of 20 sessions (a typical course of treatment for one family).	
Workshops	Three days for every three months until certified.	

Certification Process - Certification as a PMTO Specialist is attained following submission of tapes from a full course of treatment with two families. The PMTO Specialist must also display working knowledge of the FIMP rating system for fidelity monitoring and peer coaching purposes. Certification

generally occurs six to ten months following the final training workshop, or about two years after beginning the training process. Ongoing fidelity checks with the FIMP are required for certified clinicians. Certified clinicians (Generation 1) train new clinicians (Generation 2) under the direction of ISII mentors. ISII provides support to the continued FIMP process to prevent and correct treatment drift.

Fidelity measures, tools & assessments

- Videotape Review
- Consultation: Phone, on-site.
- Written measures, assessments and/or forms: FIMP
- Standardized treatment materials: Treatment Manual
- Other:

Trainer / Consultant / Mentor

Qualifications: Certification and satisfactory fidelity checks using the FIMP.

Training: N/A.

Associated Costs

Training costs are approximately \$28,000 per clinician trainee with a minimum of 20 trainees per training cohort. Actual costs vary with the training structure, which can be customized to the agency. Pre-training consultation on implementation is done on a fee-for-service basis, including travel.

Mean cost of a course of PMTO treatment per family is \$318, not including supervision and assessment costs (Barth et al., 2005).

For More Information

<http://www.isii.net>
<http://www.oslc.org/>

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Appendix B: Literature Reviewed for Level of Evidence Reviews

Review Articles

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