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# Establishing Evidence-Based Juvenile Violence Prevention Programs in Oregon: A Report on the Implementation and Outcomes of Functional Family Therapy and Multi Systemic Therapy Model Programs

FY 2001-2005

## *Executive Summary*
## *What have we learned after four years?*


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# Background

## Introduction

This report presents the findings from a four-year evaluation of the implementation and outcomes of two evidence-based family therapy programs: Functional Family Therapy (FFT) and Multisystemic Therapy (MST). The evaluation was conducted by Program Design and Evaluation Services of the Oregon Department of Human Services in partnership with the Criminal Justice Services Division (CJSD) of the Oregon Office of Homeland Security. Following recommendations by the Governor's Drug and Violent Crime Advisory Board, CJSD selected four FFT programs and two MST programs for funding in 2001. Agencies were selected based on their ability to implement FFT or MST with fidelity and willingness to implement an evaluation component.

In 1996, the Criminal Justice Services Division of the Oregon State Police (now Office of Homeland Security) established a partnership with evaluation researchers from Program Design and Evaluation Services (PDES) of the Oregon Department of Human Services. The purpose of this partnership was to incorporate evaluation criteria into the selection and monitoring of Byrne-funded juvenile violence prevention and treatment programs and to promote funding and replication of evidence-based programs.

In 2001, PDES presented the general findings from the evaluation of the FY 1996-2000 Byrne funded juvenile violence prevention and treatment programs to the Governor's Drug and Violent Crime Advisory Board. PDES noted that:

- The most effective Byrne funded programs were those that were based on well-researched interventions that had previously been subjected to rigorous experimental design evaluations, and had been found to be effective.

- Replications of programs that were previously successful in other communities did not guarantee similarly positive results in the new setting. Programs needed guidance to ensure that they identified and duplicated the features of a program that were specifically responsible for the program's success.

PDES made the following recommendations for optimizing the effectiveness of future Byrne funding:

- *Future Byrne funded programs should be based on well-researched best practices models, or promising program models that address violence or known correlates of violence and that lend themselves to rigorous evaluation.*

- *Future Byrne funded programs should be expected to adhere to strict implementation standards and provide documentation of such implementation to ensure high quality program content, delivery, and evaluability.*

Following the presentation, the Criminal Justice Services Division (CJSD) in conjunction with the Governor's Drug and Violent Crime Advisory Board recommended that beginning in 2001 programs funded with Byrne dollars be evidence-based. The Office of Juvenile Justice and Delinquency Prevention's (OJJDP's) Blueprints for Violence Prevention initiative was used as a guide for identifying evidence-based programs. Applicants for FY 2001-2005 funding were encouraged to propose evidence-based programs. From the applicants, CJSD selected four FFT programs and two MST programs for funding.

The six program agencies selected for funding had similar motivations and goals in proposing these model programs. They all contended with high rates of juvenile crime and recidivism and had reservations about the effectiveness of individual treatment programs. In this context, the family-based treatment approach of the FFT and MST model programs was particularly timely. The models carried considerable conceptual appeal for agency administrators and staff and gave each of the agencies an opportunity to address pressing issues with financial assistance from CJSD and technical assistance from the designers of the models.

## Model Program Descriptions

### *Functional Family Therapy (FFT)*

FFT is a family-based prevention and intervention program that has been successfully applied in a variety of contexts to treat high-risk youth and their families. FFT targets youths 11 to 18 years old at risk of or already demonstrating delinquency, violence, substance use, conduct disorder, oppositional defiant disorder, or disruptive behavior disorder. The program is delivered by family therapists who engage the entire family in skills training in the areas of family communication, parenting, and conflict management in order to change maladaptive behaviors and strengthen positive behaviors.

There are three distinct treatment phases to the FFT model:

- Phase 1, Engagement and Motivation, is designed to address any issues that might inhibit families' full and productive engagement with therapy and to build on those individual and family strengths that will contribute to successful therapy. This is the most important phase and often the longest for families who demonstrate resistance. During this phase, the therapist works to create a shared understanding of the presenting problems and build trust with the family members.

- Phase 2, Behavior Change, focuses on the development and implementation of immediate and long-term behavior changes plans tailored to each family member's needs and perspective. In this phase the therapist develops and implements individualized change plans that address parenting skills, delinquency behavior, and communication skills and teaches the family new ways to interact and talk to each other.

- Phase 3, Generalization, helps the family apply positive behavior change techniques to additional situations and potential problems that could arise in the future. The focus shifts to relapse prevention and providing necessary community resources to support change. To ensure long-term support of changes, the therapist links families with available community resources.

FFT is a short-term intervention. On average, participating youth and families attend 12 one hour sessions spread over three months. However, more difficult cases may require 26 to 30 hours of direct service.

### *Multisystemic Therapy (MST)*

MST is an intensive family-oriented, home-based program that targets chronically violent, substance-abusing juvenile offenders 12 to 17 years old. The underlying premise of MST is that criminal conduct is multi-determined; therefore, effective interventions must recognize this fact and address the multiple sources of criminal influence. These sources are found not only in the youth (values and attitudes, social skills, biology, etc.) but also in the youth's social ecology: the family, school, peer group, and neighborhood. Behavior problems can stem from and be maintained by problematic interactions within this social network, and MST specifically targets the multiple factors that can contribute to antisocial behavior. The overarching goal of the program is to help parents understand and help their children overcome behavior problems, iincluding disengaging from deviant peers and overcoming poor school performance. To empower families, MST addresses indentified barriers to effective parenting (e.g., parental drug abuse and mental health problems) and helps family members build an indigenous social support network involving friends, extended family, neighbors, and church members. In doing so, MST uses the strengths in each youth's social network to promote positive change in his or her behavior. Likewise, treatment is designed with input from the family to increase family collaboration and participation.

Consistent with the program philosophy, and to enhance generalization to other settings, MST is typically provided in the home, school, and other community locations. Therapists with low caseloads (4-6 families)—and who are available 24 hours per day, 7 days per week—provide the treatment, placing developmentally appropriate demands for responsible behavior on youth and their families. Intervention plans include strategic family therapy, structural family therapy, behavioral parent training, and cognitive behavior therapies. The average duration

of treatment is about four months, which includes approximately 60 hours of therapist-family contact.

# Methods

The evaluation addressed two basic questions:

1. To what extent were the FFT and MST models implemented as designed?
2. To what extent did the FFT and MST model programs affect the subsequent delinquent/criminal involvement of participants?

To answer these questions, Program Design and Evaluation Services (PDES) adopted an enhanced evaluation strategy that focused on demonstrating that the model programs were implemented with fidelity and included appropriate outcome measures to assess program effectiveness. In consultation with PDES, the six model program sites were required to participate in a series of evaluation activities designed to enhance their evaluation capacity. Each grantee was required to employ an external evaluator, create a Comprehensive Evaluation Plan, and complete a series of specific evaluation steps that were implemented in a stepwise fashion over the four-year Byrne grant period. During the first year of the program, grantees were required to develop their capacity to conduct evaluation activities. Capacity building steps included the development of a detailed program description, a logic model, and an evaluation measurement plan that outlined the program's goals and objectives, along with plans for measurement, data collection, and analysis. During the second year, grantees were required to conduct a process evaluation. The process evaluation described the population served, the quantity and quality of services delivered, and the barriers to program implementation. During the third and fourth years, grantees focused on program outcomes as well as continued process evaluation. Grantees were required to develop and implement an outcome monitoring system based on the program goals, objectives, performance indicators, and measurement plans developed in the capacity building phase.

Throughout the four years, PDES provided technical assistance and evaluation monitoring to the six model program sites. In order to guide programs in their evaluation, PDES developed a series of forms to capture data on youth and program characteristics. In the first year, these forms included a detailed Program Description, Logic Model and Evaluation Measurement Plan that together formed the basis of the evaluation capacity building process. The Program Description set forth the program's rationale, described the program participants, the services they receive, and the program's resources. The Logic Model linked the program goals and activities to the outputs and outcomes expected. The Evaluation Measurement Plan set forth the measurement of outputs and outcomes and detailed the data collection methods and data management procedures to be used in the evaluation. In the second year, sites received guidance on the process evaluation. Sites were

requested to address three key questions in their process evaluation: (1) did the program reach the appropriate target population, (2) was the delivery of program services consistent with program design specifications, and (3) was the training received from FFT or MST trainers sufficient to impart the necessary skills needed to deliver the program? In the third year, sites received guidance on conducting the outcome monitoring needed to assess program effectiveness. Sites were directed to collect data on referrals, allegations, and severity of referrals for program participants during the year prior to entering FFT or MST and during the year following exit from the FFT or MST program.

# Findings

## Implementation

Implementation was generally a success across all six programs. The appropriate youth were enrolled in the programs, the core elements of the FFT and MST models were put into place, and the enrolled youth received the treatment services specified by the FFT and MST models. All six programs successfully implemented most of the core features (treatment services, training services, and organizational components) of the FFT and MST programs although there were some problems as well. In general, programs did very well implementing treatment service components. Most received strong ratings in that area with the exception of the Multnomah MST Treatment Foster Care Program where therapists were not adherent to the model. Results were mixed but generally positive for implementing training services components. Problems in this area were primarily failures by FFT Inc. and MST Services to deliver training as promised in their model guidelines. Both FFT Inc. and MST Services had difficulty providing sites with assessment services, competent clinical trainers, and consistent implementation standards. Results in implementing organizational components were mixed and generally problematic. Agencies had difficulty in a wide range of areas including management, staffing, collaboration, resource levels, and communication with program developers. Programs implementing FFT had more difficulty in this area than programs that implemented MST. FFT is a more prescriptive model than MST in what it allows regarding staffing, community collaboration, and sharing of information with referral sources. Agencies were often unprepared to address the restrictions imposed by the FFT model when they encountered them.

## Recidivism

Multiple measures were used to assess recidivism including the following:

- Number and rate of referrals to juvenile justice, including violent felony referrals, felony referrals, criminal referrals (i.e., felony or misdemeanor), and status and violation referrals.

- Number and rate of offenses for the various types of referrals.
- Mean severity score of the most serious referral and mean severity score of all offenses.

Recidivism data are based on officially reported arrests in the juvenile justice system that occurred during the 12 month period following each youth's exit from participation in FFT or MST in comparison to their reported arrests during the 12 month period prior to enrollment in FFT or MST. All data were gathered from official juvenile records using the Oregon Youth Authority Juvenile Justice Information System (JJIS) which tracks and integrates statewide information on juvenile involvement with juvenile justice departments.

Table 1 shows the percentage reduction in referrals, offenses, and severity for the four FFT programs and one of the two MST programs (MST Home Works did not collect 12 month data prior to program entry). The data suggest that these model programs achieved their primary goal of reducing delinquent and criminal activity among program participants. On all measures of recidivism, the model programs report results that meet or exceed those reported in the literature. On average, previous FFT studies report reductions of 25 to 60 percent in youth who re-offend and previous MST studies report 25 to 70 percent reductions in rates of re-arrest. The four FFT programs generally exceeded the results reported in the literature while the MST program reported results that fall within the range reported in previous MST studies. Furthermore, the programs reported results that met or exceeded those reported in the literature across all three measures of recidivism. Youth who participated in these model programs had fewer referrals to juvenile justice in the year following their participation, committed fewer crimes, and if they did commit crimes, committed less severe crimes. Reductions in referrals across programs ranged from 49 to 71 percent for violent felony referrals, from 47 to 69 percent for felony referrals, from 45 to 71 percent for criminal referrals and from 26 to 67 percent for referrals of any type. Reductions for offenses ranged from 38 to 75 percent for violent felony offenses, from 22 to 78 percent for felony offenses, from 34 to 67 percent for criminal offenses and from 35 to 66 percent for offenses of any type. Reductions in the severity of referrals ranged from 41 to 61 percent and reductions in the severity of offenses ranged from 14 to 61 percent.

| Table 1. Reduction in Recidivism | | | | | |
|---|---|---|---|---|---|
| Outcome Measure | ADAPT (n=131) | Parrott Creek (n=106) | Marigold (n=97) | Jackson (n=109) | MST TFC (n=103) |
| Percent reduction in violent felony referrals | 71 | * | * | 56 | 49 |
| Percent reduction in felony referrals | 60 | 47 | 57 | 69 | 48 |
| Percent reduction in criminal referrals | 64 | 71 | 45 | 69 | 54 |
| Percent reduction in all referrals | 63 | 53 | 26 | 67 | 53 |
| Percent reduction in violent felony offenses | 64 | * | * | 75 | 38 |
| Percent reduction in felony offenses | 44 | 22 | 69 | 78 | 63 |
| Percent reduction in criminal offenses | 34 | 61 | 51 | 67 | 53 |
| Percent reduction in all offenses | 55 | 50 | 35 | 66 | 54 |
| Percent reduction in severity of referrals | 51 | 58 | 41 | 61 | ** |
| Percent reduction in severity of offenses | 38 | 60 | 14 | 61 | ** |

MST Homeworks not included because they did not collect 12 month data prior to program entry.
Criminal referral/offense = felony and/or misdemeanor.
Any referral/offense = felony, misdemeanor, status, and violation.
* Data not reported when fewer than 10 events in 12 months prior to program entry.
** Severity data not collected by MST program

# Recommendations

Although information on evidence-based programs has been developed and disseminated at the federal level, this dissemination is only the initial step. It must be followed by efforts to promote the adoption of evidence-based programs. Unfortunately, there is little concrete information available on the factors that result in successful or unsuccessful program adoption when replicating an evidence-based program. Consequently, it is extremely important to document and disseminate the experiences and problems encountered in replicating evidence-based programs if we are to sustain effective programs and facilitate their spread. The six model programs funded by CJSD were adopted and implemented in different setting with different populations and encoutered widely varying problems and process outcomes. The lessons learned from these programs may be of use to those intending to implement model programs in the future as well as to designers of programs and funding agencies.

## *Recommendations for Agencies Adopting Model Programs*

### Develop Administrative Support

Administrative support is crucial to implementation efforts because decision-making authority exists at this level. Our experience with the six Byrne funded programs is that the project administrator plays a vital role that is quite different from that of the

clinical supervisor or site leader. We found that implementation was more successful when this person had a basic understanding of the clinical model and had participated in the initial training provided by the developer. The program administrator is in a position to instigate changes in the organization, allocate money and resources, and communicate a vision for the agency (and how the new program fits into that vision). The program administrator must maintain an objective administrative position when it comes to monitoring the progress of the program but be sufficiently knowledgeable to address problems in model adherence as they occur.

**Identify and Foster the Development of a Program Champion**

Every program needs a "champion" who is responsible for directing or coordinating the program. The program champion is the motivator behind the program, guiding its day-to-day operations, fostering communication, and serving as a support to staff. The champion needs to have enough power in the organization to garner the necessary resources and help establish needed policy or work routine changes and must have good rapport and communication with all staff. In the FFT model, this person is typically the lead therapist, in MST it is typically the clinical supervisor.

**Create an Organizational Structure that Promotes Training and Fidelity**

Training and fidelity are key components of successful implementation. While the six Byrne funded programs contracted with the developers for initial training, it became clear that more was needed particularly in the later years as contact with the developers decreased. Agencies need to develop an ongoing training plan that provides therapists with the necessary skills, confidence, and motivation to succeed. Managers as well as treatment providers should be trained to ensure agency understanding and support. Training practices should be designed to promote fidelity. Feedback should be provided to treatment providers continually on their adherence to treatment principles.

## *Recommendations for Designers of Model Programs*

**Develop the Internal Capacity to Disseminate the Program**

Both FFT and MST created corporations to deliver training services to sites. However, the six programs funded by Byrne consistently expressed frustration about working with FFT Inc. and MST Services. Programs reported they had difficulty communicating, that they were not provided with information they needed to efficiently implement their program, that they sometimes received contradictory advice, and that assessment problems went unresolved for lengthy periods of time.

**Develop the Capacity to Assess Site Implementation**

Our experience with these six Byrne funded programs suggests that program designers generally were good at training therapists but were not sufficiently involved with the programs to identify and correct implementation problems when they occurred. While both FFT Inc. and MST Services required sites to complete a site readiness assessment form, it was not sufficiently detailed to identify all

implementation problems. For example, FFT Inc. was unaware that Parrott Creek intended to use residential therapists in a dual role as youths' treatment counselor and as the family therapist until the CJSD evaluation team pointed it out. Once training was underway, the programs' contact was primarily through the clinical trainer who focused specifically on training issues. Implementation problems were not confronted as they arose because the designers were unaware of them and had no mechanism in place to identify them.

### Support Implementation Research

The causes of program failure are often associated with poor implementation. However, when implementing FFT, MST, or any other evidence-based program, we only have evidence that the program works if it is implemented with all core components and with the prescribed dosage achieved in the research trials. Research should be conducted to determine which core components are necessary to achieve successful outcomes and which components may be more adaptable. Determining the dosage threshold required to obtain results is also important. These cannot be subjective judgements, but must be determined empirically. Studies should be conducted to identify the factors that influence fidelity of implementation. For example, studies could examine how differences in training and technical support, implementer characteristics, and organizational support systems affect implementation.

### Develop Training Programs that Facilitate Site Independence

Few programs have the resources to pay for training and technical assistance indefinitely. Dissemination programs should promote site independence within a reasonable time period. Given the high rate of turnover that our six programs experienced and the costs of training replacement therapists, a better way has to be found if these programs are to be disseminated widely. Developers need to work towards creating a system that allows programs to train new staff efficiently and economically.

## *Recommendations for Funders*

### Fund Evidence-Based Programs

Funders should support the replication of programs that have been evaluated and proven effective. The six model programs funded by Byrne demonstrate that when implemented as designed, the programs produce reductions in recidivism consistent with the program developers' experience.

### Fund Programs Large Enough to Absorb Staff Turnover

If programs are small they are vulnerable to failure if key staff leaves. There needs to be sufficient size in agency staff to hold the program together should turnover occur. The six model programs funded by Byrne experienced considerable therapist turnover. A large amount of training time and cost is invested in each FFT or MST therapist and when a therapist leaves the investment has to be made again. In addition, families find transitioning from one therapist to another difficult and often discontinue treatment when a therapist leaves, resulting in lower program

completion rates. There is also a delay in enrolling new families for treatment while the new therapist is hired and trained, resulting in a lower number of clients being served. Agencies with sufficient resources to develop larger teams of therapists are better positioned to absorb staff turnover, mitigate the negative consequences of turnover, and maintain model fidelity.

**Facilitate Access to Ongoing Program Funding**

As our findings demonstrate, even successful replication projects have no guarantee of continuing. The gap between successful outcomes and funding opportunities is large and defies logic. Three of the six model programs funded by Byrne did not continue. As one program administrator of a discontinued program noted,

"In conversations with other FFT sites in the state, we have learned that some FFT projects have discontinued their relationship with FFT. One of the reasons reported has been the limited ability to raise the funds for sustainability. This has mirrored our own experience. As a result of FFT's requirement for ongoing involvement with them (at considerable expense) and the requirement for maintaining a caseload of 12-15, we have realized that client fees will not cover the expense of maintaining an FFT treatment project. Many of our clients do not have private insurance and reimbursement from other sources will not cover the cost of providing the therapy. What a Loss!!!"

Funders and state legislators who want to implement evidence-based programs in Oregon, must recognize the limitations of local programs to raise external funds for ongoing program support. Successful models, based on well-developed outcomes, need general support to sustain further development.

**Facilitate Collection of Outcome Data**

Programs should continue to collect data on youths' contacts with the juvenile justice system. Oregon is fortunate to have a system in place to provide this information. The Juvenile Justice Information System (JJIS) is a valuable tool for assessing program outcomes. However, it takes time to assess these program outcomes. We typically must look out a year or more to see the impact of a program on a youth's criminal activity. This time frame conflicts with the funders' need to demonstrate program effectiveness in a short period of time. Nevertheless, what society really wants to know is whether a particular program will succeed in transforming troubled youth into productive adults. Funders should set aside funds to track youth contacts with the juvenile justice system and conduct this tracking in a manner independent from program funding. Our experience collecting JJIS data in concert with the six Byrne funded programs was difficult at best. We found that programs often had to rely on the good will of their Juvenile Department to collect the data and that there were often misunderstandings and resistance to collecting the data. A better way would be to fund an independent evaluator to collect the data for all programs and have this person certified to use the JJIS system.