Multidimensional Treatment Foster Care

Program description:

Multidimensional Treatment Foster Care (MTFC) is an intensive therapeutic foster care alternative to institutional placement for adolescents who have problems with chronic antisocial behavior, emotional disturbance, and delinquency. MTFC activities include skills training and therapy for youth as well as behavioral parent training and support for foster parents and biological parents. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Typical age of primary program participant: 16

Typical age of secondary program participant: -1

Meta-Analysis of Program Effects

Outcomes Measured	Primary or Second-ary Partici-pant	No. of Effect Sizes	Unadjusted Effect Sizes (Random Effects Model)			Adjusted Effect Sizes and Standard Errors Used in the Benefit-Cost Analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	P	3	-0.61	0.22	0.01	-0.22	0.22	17	-0.22	0.22	27
Teen pregnancy (under age 18)	P	1	-0.47	0.03	0.00	-0.35	0.03	17	-0.35	0.03	19

Benefit-Cost Summary

	Program Benefits					Costs	Summary Statistics			
The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2011). The economic discount rates and other relevant parameters are described in Technical Appendix 2.	Partici-pants	Tax-payers	Other	Other Indirect	Total Benefits		Benefit to Cost Ratio	Return on Invest-ment	Benefits Minus Costs	Probability of a positive net present value
	$3,017	$8,165	$23,956	$4,059	$39,197	-$7,922	$4.95	41%	$31,276	85%

Detailed Monetary Benefit Estimates

	Benefits to:				
Source of Benefits	Partici-pants	Tax-payers	Other	Other In-direct	Total Benefits
Crime	$0	$6,628	$24,261	$3,284	$34,173
Earnings via high school graduation	$3,069	$1,129	$0	$573	$4,772
Health care costs via education	-$52	$408	-$305	$203	$253

Detailed Cost Estimates

	Program Costs			Comparison Costs			Summary Statistics	
The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta-analysis. The uncertainty range is used in Monte Carlo risk analysis, described in Technical Appendix 2.	Annual Cost	Program Duration	Year Dollars	Annual Cost	Program Duration	Year Dollars	Present Value of Net Program Costs (in 2011 dollars)	Uncertainty (+ or – %)
	$31,883	1	2007	$24,536	1	2007	$7,904	10%

Source: Estimate provided by the Juvenile Rehabilitation Administration is based on an average length in the program during 2010 and includes oversight, coordination, and administration of the program. Aftercare programming for MTFC is discretionary and the additional associated cost calculation formulas are currently in development. The MTFC cost estimate is compared with alternative cost for youth in group homes.

Cumulative Net Cash Flows Over Time (Non-Discounted Dollars)
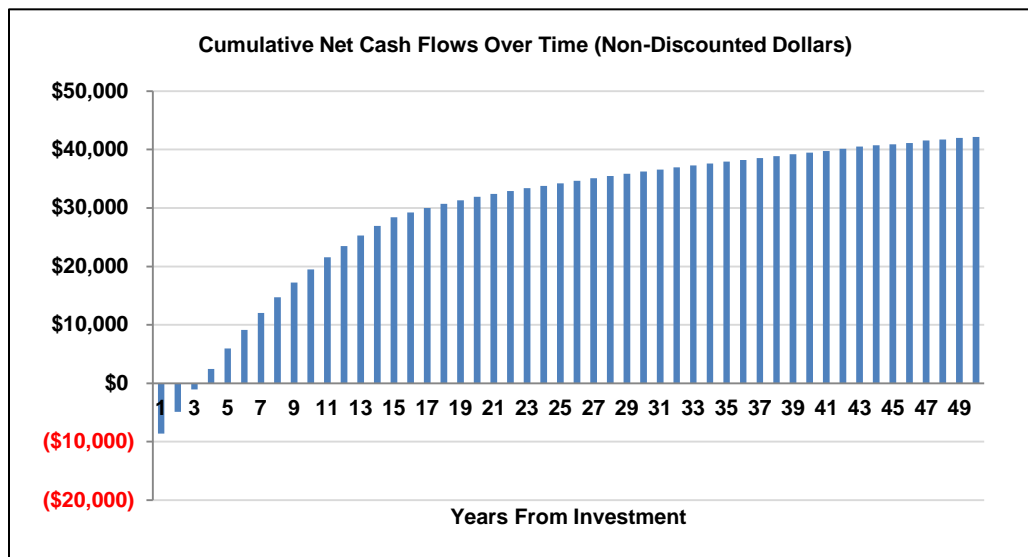
Multiplicative Adjustments Applied to the Meta-Analysis

Type of Adjustment	Multiplier
1- Less well-implemented comparison group or observational study, with some covariates.	1.00
2- Well-implemented comparison group design, often with many statistical controls.	1.00
3- Well-done observational study with many statistical controls (e.g., instrumental variables).	1.00
4- Random assignment, with some implementation issues.	1.00
5- Well-done random assignment study.	1.00
Program developer = researcher	0.36
Unusual (not "real-world") setting	0.50
Weak measurement used	0.80

The adjustment factors for these studies are based on our empirical knowledge of the research in a topic area. We performed a multivariate regression analysis of 96 effect sizes from evaluations of adult and juvenile justice programs. The analysis examined the relative magnitude of effect sizes for studies rated a 1, 2, 3, or 4 for research design quality, in comparison with a 5 (see Technical Appendix B for a description of these ratings). We weighted the model using the random effects inverse variance weights for each effect size. The results indicated that research designs 1, 2, and 3 should have a multiplier greater than 1 and research design 4 should have a multiplier of approximately 1. Using a conservative approach, we set all the multipliers to 1.

In this analysis, we also found that effect sizes were statistically significantly higher when the program developer was involved in the research evaluation. Similar findings, although not statistically significant, indicated that studies using weak outcome measures (such as technical violations) were higher.

Studies Used in the Meta-Analysis

Chamberlain, P. (1990). Comparative evaluation of specialized foster care for seriously delinquent youths: A first step. *Community Alternatives: International Journal of Family Care, 2*(2), 21-36.

Chamberlain, P., Fisher, P. A., & Moore, K. (2002). Multidimensional treatment foster care: Applications of the OSLC intervention model to high-risk youth and their families. In J. B. Reid, G. R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 203-218). Washington DC: American Psychological Association.

Chamberlain, P., Leve, L. D., & Degarmo, D. S. (2007). Multidimensional treatment foster care for girls in the juvenile justice system: 2-year follow-up of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 75*(1), 187-193.

Kerr, D. C., Leve, L. D., & Chamberlain, P. (2009). Pregnancy rates among juvenile justice girls in two randomized controlled trials of multidimensional treatment foster care. *Journal of Consulting and Clinical Psychology*, 77(3), 588-593.