Multidimensional Family Therapy (MDFT)

Multidimensional Family Therapy (MDFT) is a comprehensive and multisystemic family-based outpatient or partial hospitalization (day treatment) program for substance-abusing adolescents, adolescents with co-occurring substance use and mental disorders, and those at high risk for continued substance abuse and other problem behaviors such as conduct disorder and delinquency. Working with the individual youth and his or her family, MDFT helps the youth develop more effective coping and problem-solving skills for better decisionmaking and helps the family improve interpersonal functioning as a protective factor against substance abuse and related problems.

Delivered across a flexible series of 12 to 16 weekly or twice weekly 60- to 90-minute sessions, MDFT is a manual-driven intervention with specific assessment and treatment modules that target four areas of social interaction: (1) the youth's interpersonal functioning with parents and peers, (2) the parents' parenting practices and level of adult functioning independent of their parenting role, (3) parent-adolescent interactions in therapy sessions, and (4) communication between family members and key social systems (e.g., school, child welfare, mental health, juvenile justice).

Descriptive Information

Areas of Interest	Substance abuse treatment Co-occurring disorders
Outcomes	**Review Date: June 2008** 1: Substance use 2: Substance use-related problem severity 3: Abstinence from substance use 4: Treatment retention 5: Recovery from substance use 6: Risk factors for continued substance use and other problem behaviors 7: School performance 8: Delinquency 9: Cost effectiveness
Outcome Categories	Alcohol Cost Crime/delinquency Drugs Education Employment Family/relationships Mental health Social functioning Treatment/recovery Violence
Ages	6-12 (Childhood) 13-17 (Adolescent)
Genders	Male Female
Races/Ethnicities	Asian Black or African American Hispanic or Latino White Race/ethnicity unspecified

Settings	Outpatient Correctional Home
Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	First implemented in 1985, MDFT has been used in nearly 40 sites in 11 States. Some of the sites have been operating MDFT for over a decade. MDFT has been used with youth from diverse ethnic and socioeconomic backgrounds; in urban, suburban, and rural settings; and in a variety of contexts (e.g., in-home and residential treatment programs, alternative schools, detention centers, hospitals, mental health centers, programs serving court-mandated juveniles). Internationally, MDFT has been implemented in several European countries, including Belgium, France, Germany, the Netherlands, and Switzerland as part of the five-country collaborative treatment study known as INCANT (International Cannabis Need of Treatment Project; http://www.incant.eu), funded under Europe's Action Plan for Cannabis Research. This multisite, transnational randomized controlled trial was funded by the Health Ministries of the five participating countries. MDFT was also implemented at four sites in Glasgow, Scotland, in a dissemination study funded by the National Institute on Drug Abuse (NIDA).
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: Yes Evaluated in comparative effectiveness research studies: Yes
Adaptations	Some program materials have been translated into Spanish. Training materials have been translated into Dutch, with additional translations underway into French, German, and Russian.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
IOM Prevention Categories	IOM prevention categories are not applicable.

Quality of Research

Review Date: June 2008

Documents Reviewed

The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1

Liddle, H. A., Dakof, G. A., Parker, K., Diamond, G. S., Barrett, K., & Tejeda, M. (2001). Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial. American Journal of Drug and Alcohol Abuse, 27(4), 651-688.

Study 2

Liddle, H. A., Dakof, G. A., Turner, R. M., Henderson, C. E., & Greenbaum, P. E. (2008). Treating adolescent drug abuse: A randomized trial comparing multidimensional family therapy and cognitive behavior therapy. Addiction, 103(10), 1660-1670.

Study 3

Liddle, H. A., Rowe, C. L., Dakof, G. A., Henderson, C. E., & Greenbaum, P. E. (2009). Multidimensional family therapy for young adolescent substance abuse: Twelve-month outcomes of a randomized controlled trial. Journal of Consulting and Clinical Psychology, 77 (1), 12-25.

Liddle, H. A., Rowe, C. L., Dakof, G. A., Ungaro, R. A., & Henderson, C. E. (2004). Early intervention for adolescent substance abuse: Pretreatment to posttreatment outcomes of a randomized clinical trial comparing Multidimensional Family Therapy and peer group treatment. Journal of Psychoactive Drugs, 36(1), 49-63.

Study 4

Dennis, M. (2002, August). 30 month findings from the Cannabis Youth Treatment (CYT) randomized field experiment. Presented at the 110th annual conference of the American Psychological Association, Chicago, IL.

Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., et al. (2004). The Cannabis Youth Treatment (CYT) Study:

Main findings from two randomized trials. Journal of Substance Abuse Treatment, 27(3), 197-213.

Supplementary Materials

Allen, J. P., & Wilson, V. B. (Eds.). (2003). Alcohol Timeline Followback (TLFB). In Assessing alcohol problems: A guide for clinicians and researchers (pp. 301-305). Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism.

Allen, J. P., & Wilson, V. B. (Eds.). (2003). Personal Experience Inventory (PEI). In Assessing alcohol problems: A guide for clinicians and researchers (pp. 511-513). Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism.

Dennis, M. L., Funk, R., Godley, S. H., Godley, M. D., & Waldron, H. (2004). Cross-validation of the alcohol and cannabis use measures in the Global Appraisal of Individual Needs (GAIN) and Timeline Followback (TLFB; Form 90) among adolescents in substance abuse treatment. Addiction, 99(Suppl. 2), 120-128.

Dennis, M. L., Titus, J. C., Diamond, G., Donaldson, J., Godley, S. H., Tims, F. M., et al. (2002). The Cannabis Youth Treatment (CYT) experiment: Rationale, study design, and analysis plans. Addiction, 97(Suppl. 1), 16-34.

French, M. T., Roebuck, M. C., Dennis, M. L., Diamond, G., Godley, S. H., Tims, F., et al. (2002). The economic cost of outpatient marijuana treatment for adolescents: Findings from a multi-site field experiment. Addiction, 97(Suppl. 1), 84-97.

Liddle, H. A., & Hogue, A. (2001). Multidimensional family therapy for adolescent substance abuse. In E. Wagner & H. Waldron (Eds.), Innovations in adolescent substance abuse interventions (pp. 229-261). St. Louis, MO: Elsevier Science.

Personal Experience Inventory (PEI). (n.d.). Retrieved March 27, 2008, from the European Monitoring Centre for Drugs and Drug Addiction Web site: http://eib.emcdda.europa.eu/html.cfm/index4370EN.html

Schmidt, S. E., Liddle, H. A., & Dakof, G. A. (1996). Changes in parenting practices and adolescent drug abuse during multidimensional family therapy. Journal of Family Psychology, 10(1), 12-27.

Timeline Followback Method (Alcohol). (n.d.). Retrieved March 27, 2008, from the Healthy Lifestyles Guided Self-Change Program, Center for Psychological Studies, Nova Southeastern University Web site: http://www.nova.edu/gsc/forms/TLFBAL_overview.doc

Outcomes

Outcome 1: Substance use	
Description of Measures	In one study, severity of drug use was measured using a rating determined by clinicians based on three sources of information: self-reported and collateral (parent)-reported frequency of drug use during the prior month and urinalysis at the time of the assessment. Clinicians gave ratings along a 15-point cumulative scale from 1 (no drug use) to 15 (daily marijuana use and the use of other drugs more than two times per week). Two other studies used the Timeline Followback (TLFB) interview adapted for adolescents to measure substance use. TLFB uses a calendar and key dates as memory prompts to calculate daily frequency of substance use during the prior month.
Key Findings	In a randomized controlled trial (RCT), marijuana- and alcohol-abusing adolescents were assigned to one of three manual-based treatment conditions--MDFT, adolescent group therapy (AGT), or multifamily educational intervention (MEI)--consisting of 14 to 16 90-minute sessions conducted over 5 to 6 months in an outpatient office or clinic. MDFT used a family therapeutic approach with individual families, while MEI served groups of three or four families in a more structured, psychoeducational setting. AGT consisted of groups of six to eight adolescents led by two therapists and emphasized the development of social skills, self-control, self-acceptance, and problem-solving skills. Assessments were conducted at intake (baseline), treatment termination, and 6 and 12 months after treatment termination. Findings from this study included: • The clinician ratings for severity of drug use decreased from intake to treatment termination ($p = .0001$) and from intake to the 6- and 12-month follow-ups ($p < .001$) for participants in all three treatment conditions, but MDFT participants had the largest rating decrease from intake to treatment termination when compared with each of the other groups ($p = .002$). • At treatment termination, MDFT participants had lower ratings for severity of drug use when compared with AGT participants ($p = .002$) and MEI participants ($p = .003$). • Across the 12-month follow-up period, MDFT participants received lower severity of drug use ratings when compared with each of the other groups ($p = .01$). • At the 12-month follow-up, severity of drug use ratings were lower for both MDFT ($p = .0006$) and AGT participants ($p = .02$) relative to MEI participants but did not differ between MDFT and AGT participants.

	In another RCT, adolescents who met DSM-IV criteria for cannabis, alcohol, and/or other drug dependence were assigned to one of two manual-based treatment conditions--MDFT or Cognitive Behavioral Therapy (CBT)--consisting of 60- to 90-minute sessions conducted weekly in an outpatient office setting. Adolescents in the CBT condition received individual therapy, although parents attended the first two treatment sessions. CBT sessions first aimed to prioritize problems and construct a treatment "contract" and then focused on information/education and providing problem-solving skills training. Assessments were conducted at intake (baseline), treatment termination, and 6 and 12 months after treatment termination. Findings from this study included: • The reported frequency of cannabis use decreased for participants in both treatment conditions across the 12-month follow-up period ($p < .001$). • MDFT participants reported less frequent drug use (excluding alcohol) than CBT participants across the 12-month follow-up period ($p < .05$). • At the 12-month follow-up, a larger proportion of MDFT than CBT participants reported having used alcohol or drugs fewer than two times in the past 30 days (64% vs. 44%, $p = .02$). In another RCT, adolescents referred to a community outpatient drug abuse treatment clinic were assigned to one of two manual-based treatment conditions--MDFT or peer-group therapy--consisting of 90-minute sessions conducted twice weekly over 3-4 months. MDFT sessions took place mainly in the home, while peer-group therapy sessions took place mainly in outpatient clinic offices. Case management services were available to adolescents in both conditions. Peer-group therapy used a CBT model for substance abuse treatment, with one therapist leading group sessions of four to six youth in interpersonal/intrapersonal skills training. Assessments were conducted at intake (baseline), 6 weeks after intake, treatment termination, and 6 and 12 months after intake. Findings from this study included: • From intake to treatment termination, reported cannabis use decreased among MDFT participants (from 57% to 1%) and peer-group therapy participants (from 66% to 20%). • Among participants who reported using alcohol at any point during treatment, reported alcohol use declined faster among those receiving MDFT than those receiving peer-group therapy ($p < .05$). • From intake through the 12-month follow-up period, MDFT participants reported fewer days of any substance use than peer-group therapy participants ($p < .001$), a group difference associated with a medium effect size (Cohen's $d = 0.77$).
Studies Measuring Outcome	Study 1, Study 2, Study 3
Study Designs	Experimental
Quality of Research Rating	3.2 (0.0-4.0 scale)

Outcome 2: Substance use-related problem severity	
Description of Measures	In one study, substance use-related problem severity was measured using the 29-item Personal Involvement with Chemicals (PIC) subscale of the Personal Experience Inventory (PEI), a 276-item self-report instrument. The PIC subscale measures the psychological extent of substance use (e.g., using substances to relax or feel calm), the behavioral extent of substance use (e.g., using substances across the whole day, on weekends, or while at school), and related consequences (e.g., canceling plans in order to use drugs) in the month prior to the assessment. In another study, substance use-related problem severity was measured using the 17-item Substance Use and Abuse subscale of the Problem Oriented Screening Instrument for Teenagers (POSIT). The POSIT is a 139-item yes/no self-report screening instrument designed to identify potential problem areas that require further indepth assessment and/or potential treatment across 10 functional domains that include substance abuse, mental health, physical health, social (family and peer) relations, educational status, and vocational status.
Key Findings	In an RCT, adolescents who met DSM-IV criteria for cannabis, alcohol, and/or other drug dependence were assigned to one of two manual-based treatment conditions--MDFT or Cognitive Behavioral Therapy (CBT)--consisting of 60- to 90-minute sessions conducted weekly in an outpatient office setting. Adolescents in the CBT condition received individual therapy, although parents attended the first two treatment sessions. CBT sessions first aimed to prioritize problems and construct a treatment "contract" and then focused on information/education and providing problem-solving skills training. Assessments were conducted at intake (baseline), treatment

	termination, and 6 and 12 months after treatment termination. Findings from this study included: • Reported substance use-related problem severity decreased from intake through the 12-month follow-up period regardless of treatment condition ($p < .001$). • Fewer substance use-related problems were reported by MDFT participants than by CBT participants at the 6-month ($p < .05$) and 12-month ($p < .05$) follow-ups. Effect sizes for these differences were small (Cohen's $d = 0.39$) and medium (Cohen's $d = 0.59$), respectively. In another RCT, adolescents referred to a community outpatient drug abuse treatment clinic were assigned to one of two manual-based treatment conditions--MDFT or peer-group therapy--consisting of 90-minute sessions conducted twice weekly over 3-4 months. MDFT sessions took place mainly in the home, while peer-group therapy sessions took place mainly in outpatient clinic offices. Case management services were available to adolescents in both conditions. Peer-group therapy used a CBT model for substance abuse treatment, with one therapist leading group sessions of four to six youth in interpersonal/intrapersonal skills training. Assessments were conducted at intake (baseline), 6 weeks after intake, treatment termination, and 6 and 12 months after intake. Findings from this study included: • The number of participants reporting substance use-related problems decreased in both treatment conditions across the 12-month follow-up period ($p < .05$). • Already low for both groups at intake, reported substance use-related problems decreased faster for MDFT participants relative to peer-group therapy participants over the 12-month follow-up period ($p < .001$). This difference was associated with a medium effect size (Cohen's $d = 0.74$). • A smaller proportion of MDFT than peer-group therapy participants reported substance use-related problems while still in treatment ($p < .05$). Furthermore, they were more than twice as likely as peer-group therapy participants to not have any substance use-related problems by the 12-month follow-up (odds ratio = 2.2), a difference that reflects a small effect size.
Studies Measuring Outcome	Study 2, Study 3
Study Designs	Experimental
Quality of Research Rating	3.1 (0.0-4.0 scale)

Outcome 3: Abstinence from substance use	
Description of Measures	In two studies, abstinence from substance use was measured using the TLFB interview adapted for adolescents. TLFB uses a calendar and key dates as memory prompts to calculate daily frequency of substance use during the prior month. In a third study, abstinence from substance use was measured using the Global Appraisal of Individual Needs (GAIN) and was defined by the total number of abstinent days over four 3-month follow-up periods (3, 6, 9, and 12 months after intake). Abstinence also was defined by the percentage of participants who reported, at 30 months after intake, that they either had no past-month symptoms (short-term remission) or no past-year symptoms (sustained remission) of any substance abuse or dependence. The GAIN is a standardized, semistructured interview with eight main sections (background, substance use, physical health, risk behaviors, mental health, environment, legal, and vocational) that is designed to support the diagnosis, placement, and outcome monitoring of patients and the economic analysis of an intervention. Self-report data were confirmed by urinalysis at intake and at the follow-up assessments 3, 6, and 30 months after intake.
Key Findings	In an RCT, adolescents who met DSM-IV criteria for cannabis, alcohol, and/or other drug dependence were assigned to one of two manual-based treatment conditions--MDFT or Cognitive Behavioral Therapy (CBT)--consisting of 60- to 90-minute sessions conducted weekly in an outpatient office setting. Adolescents in the CBT condition received individual therapy, although parents attended the first two treatment sessions. CBT sessions first aimed to prioritize problems and construct a treatment "contract" and then focused on information/education and providing problem-solving skills training. Assessments were conducted at intake (baseline), treatment termination, and 6 and 12 months after treatment termination. Findings from this study included: • At the 12-month follow-up, a higher proportion of MDFT than CBT participants reported complete abstinence from any substance use ($p = .022$).

	In another RCT, adolescents referred to a community outpatient drug abuse treatment clinic were assigned to one of two manual-based treatment conditions--MDFT or peer-group therapy--consisting of 90-minute sessions conducted twice weekly over 3-4 months. MDFT sessions took place mainly in the home, while peer-group therapy sessions took place mainly in outpatient clinic offices. Case management services were available to adolescents in both conditions. Peer-group therapy used a CBT model for substance abuse treatment, with one therapist leading group sessions of four to six youth in interpersonal/intrapersonal skills training. Assessments were conducted at intake (baseline), 6 weeks after intake, treatment termination, and 6 and 12 months after intake. Findings from this study included: • The proportion of youth reporting abstinence from any alcohol and drug use increased for participants in both treatment conditions during the 12-month follow-up period ($p < .05$). In two trials of a randomized controlled study, five manual-driven treatment interventions for adolescents with cannabis-related disorders were compared. Trial 1 compared the following interventions at two sites: • Motivational Enhancement Therapy/CBT with 5 sessions (MET/CBT5) • MET/CBT with 12 sessions (MET/CBT12) • Family Support Network (FSN) Trial 2 compared the following interventions at two sites: • MDFT • Adolescent Community Reinforcement Approach (A-CRA) • MET/CBT5 In both trials, assessments were conducted at intake and at 3-, 6-, 9-, and 12-month follow-ups. Trial 2 additionally included a 30-month follow-up as part of the Persistent Effects of Treatment Studies--Adolescents (PETS-A) study. Findings from these trials included: • Days of total substance abstinence reported by all participants increased 24% (from 52 to 65 days) between intake and the 3-month follow-up, with no significant differences by intervention. Similar gains were seen at each of the subsequent follow-ups (6, 9, and 12 months after intake), regardless of intervention, site, or trial participation. Across both trials, total days reported abstinent from all substances over 12 months ranged from 251 to 269 days, with no significant differences by intervention. • At the 30-month follow-up, 37% of MDFT participants reported no past-year substance abuse or dependence symptoms, compared with 23% of A-CRA participants and 29% of MET/CBT5 (trial 2) participants, with no significant differences by intervention.
Studies Measuring Outcome	Study 2, Study 3, Study 4
Study Designs	Experimental
Quality of Research Rating	3.3 (0.0-4.0 scale)

Outcome 4: Treatment retention	
Description of Measures	In one study, treatment retention was measured using data on client-initiated termination after session 1 and before session 14 or the client's refusal to return for the posttreatment assessment battery. In another study, treatment retention was defined by the percentage of participants that completed treatment.
Key Findings	In an RCT, marijuana- and alcohol-abusing adolescents were assigned to one of three manual-based treatment conditions--MDFT, adolescent group therapy (AGT), or multifamily educational intervention (MEI)--consisting of 14 to 16 90-minute sessions conducted over 5 to 6 months in an outpatient office or clinic. MDFT used a family therapeutic approach with individual families, while MEI served groups of three or four families in a more structured, psychoeducational setting. AGT consisted of groups of six to eight adolescents led by two therapists and emphasized the development of social skills, self-control, self-acceptance, and problem-solving skills. Findings from this study included: • The percentage of participants completing treatment was higher in the MDFT condition than the AGT condition (70% vs. 53%, $p = .03$). Treatment retention rates between the two family-based treatments--MDFT (70%) and MEI (65%)--were not significantly different.

	In another RCT, adolescents referred to a community outpatient drug abuse treatment clinic were assigned to one of two manual-based treatment conditions--MDFT or peer-group therapy--consisting of 90-minute sessions conducted twice weekly over 3-4 months. MDFT sessions took place mainly in the home, while peer-group therapy sessions took place mainly in outpatient clinic offices. Case management services were available to adolescents in both conditions. Peer-group therapy used a Cognitive Behavioral Therapy (CBT) model for substance abuse treatment, with one therapist leading group sessions of four to six youth in interpersonal/intrapersonal skills training. Findings from this study included: • None of the MDFT participants, compared with 7% of the peer-group therapy participants, failed to attend at least one treatment session. • The percentage of participants completing treatment was higher in the MDFT condition than in the peer-group therapy condition (97% vs. 72%, p < .05).
Studies Measuring Outcome	Study 1, Study 3
Study Designs	Experimental
Quality of Research Rating	3.3 (0.0-4.0 scale)

Outcome 5: Recovery from substance use	
Description of Measures	Recovery from substance use was measured by the percentage of adolescents living in the community (as opposed to living in a correctional facility, inpatient treatment program, or other controlled environment) and reporting no past-month substance use, abuse, or dependence problems at the 12-month and 30-month interviews. For the 6% of adolescents who did not complete a 12-month follow-up, data from their last follow-up were used to determine their recovery status.
Key Findings	In two trials of a randomized controlled study, five manual-driven treatment interventions for adolescents with cannabis-related disorders were compared. Trial 1 compared the following interventions at two sites: • Motivational Enhancement Therapy/Cognitive Behavioral Therapy with 5 sessions (MET/CBT5) • MET/CBT with 12 sessions (MET/CBT12) • Family Support Network (FSN) Trial 2 compared the following interventions at two sites: • MDFT • Adolescent Community Reinforcement Approach (A-CRA) • MET/CBT5 In both trials, assessments were conducted at intake and at 3-, 6-, 9-, and 12-month follow-ups. Trial 2 additionally included a 30-month follow-up as part of the Persistent Effects of Treatment Studies--Adolescents (PETS-A) study. Findings from these trials included: • The percentage of participants who reported being in recovery at the 12-month follow-up showed small differences by intervention assignment, but after controlling for site and recovery status in the month prior to intake, the differences were not significant. Nineteen percent of MDFT participants reported that they were in recovery at the 12-month follow-up, compared with 34% of A-CRA participants, 23% of MET/CBT5 (trial 2) participants, 28% of MET/CBT5 (trial 1) participants, 17% of MET/CBT12 participants, and 22% of FSN participants. • At the 30-month follow-up, 26% of MDFT participants reported being in recovery during the previous month, compared with 27% of A-CRA participants and 13% of MET/CBT5 participants (trial 2).
Studies Measuring Outcome	Study 4
Study Designs	Experimental
Quality of Research Rating	3.8 (0.0-4.0 scale)

Outcome 6: Risk factors for continued substance use and other problem behaviors	
Description of Measures	One study assessed individual and family risk factors: • Individual risk factors defined as parent-observed problem behaviors were measured using the Acting Out Behaviors (AOB) subscale of the Devereux Adolescent Behavior Rating Scale, which was administered to each adolescent's primary parent. The Devereux Adolescent Behavior Rating Scale is a 40-item scale used to determine whether an adolescent's behaviors reflect a serious emotional or behavioral disturbance. • Family risk factors were measured using the Global Health Pathology Scale of the Beavers Interactional Competence Scales. The Global Health Pathology Scale rates family functioning using a 10-point scale from 1 (optimal functioning) to 10 (severely dysfunctional). For each participant, trained research assistants rated a 20-minute videotape of family interactions around three family scenarios: planning a dinner menu, discussing what family members like and dislike about each other, and talking about a family argument or fight. Another study assessed individual, family, peer, and school risk factors: • Individual risk factors were measured using the Achenbach Youth Self-Report (YSR) and the General Mental Distress Scale of the GAIN. The YSR is a self-report instrument for measuring internalizing behavioral symptoms (anxious, sad, withdrawn, and somatic complaints) and externalizing behavioral symptoms (aggression, hyperactivity, noncompliance, and delinquency) in youth ages 11-18. The General Mental Distress Scale is one of six subscales of the GAIN's Internal Mental Distress Scale, a 43-item scale that measures internalizing and externalizing symptoms in youth over the age of 11. The GAIN is a standardized, semistructured interview with eight main sections (background, substance use, physical health, risk behaviors, mental health, environment, legal, and vocational) that is designed to support the diagnosis, placement, and outcome monitoring of patients and the economic analysis of an intervention. • Family risk and protective factors were measured using the Moos Family Environment Scale (FES) and the Adolescent Daily Interview (ADI). The Moos FES is a 90-item self-report questionnaire completed by the parent and adolescent on 10 dimensions of the family environment, such as family cohesion, expressiveness, conflict, and achievement orientation. The ADI, adapted from the Oregon Social Learning Center's Adolescent Daily Report, is a self-report checklist of specific family interactions during the past 24 hours (e.g., "Did your parent (s) talk to you before leaving the house in the morning?"). The ADI was administered to adolescents over the phone on 3 days within a 1-week period of each assessment. • Peer risk factors were measured using the Peer Delinquency subscale of the National Youth Survey (NYS), a structured survey instrument for youth ages 11-17 years. The Peer Delinquency subscale was used to assess the adolescent's association with deviant peers. • School-related risk factors were measured using the Adolescent Interview from the Center for Treatment Research on Adolescent Drug Abuse (CTRADA). The Adolescent Interview measures the extent to which adolescents experience a range of school-related problems across both academic dimensions (e.g., undermotivated to do well, classes too difficult, not doing homework) and conduct dimensions (e.g., cutting classes, problems with teachers, disrupting class, being disciplined by the principal).
Key Findings	In an RCT, marijuana- and alcohol-abusing adolescents were assigned to one of three manual-based treatment conditions--MDFT, adolescent group therapy (AGT), or multifamily educational intervention (MEI)--consisting of 14 to 16 90-minute sessions conducted over 5 to 6 months in an outpatient office or clinic. MDFT used a family therapeutic approach with individual families, while MEI served groups of three or four families in a more structured, psychoeducational setting. AGT consisted of groups of six to eight adolescents led by two therapists and emphasized the development of social skills, self-control, self-acceptance, and problem-solving skills. Assessments were conducted at intake (baseline), treatment termination, and 6 and 12 months after treatment termination. Findings from this study included: • Parent-reported problem behaviors (AOB subscale) decreased for participants in all three treatment conditions from intake to treatment termination ($p = .0006$) and across the 6- and 12-month follow-up periods ($p = .001$). • At intake, adolescents assigned to MEI received higher family competence ratings (Global Health Pathology Scale) compared with those assigned to MDFT ($p = .03$). Compared with the ratings for either MEI or AGT participants, the ratings for MDFT participants increased from intake to treatment termination ($p = .01$) and across the 6-month follow-up period ($p = .002$). In another RCT, adolescents referred to a community outpatient drug abuse treatment clinic were assigned to one of two manual-based treatment conditions--MDFT or peer-group therapy--

	consisting of 90-minute sessions conducted twice weekly over 3-4 months. MDFT sessions took place mainly in the home, while peer-group therapy sessions took place mainly in outpatient clinic offices. Case management services were available to adolescents in both conditions. Peer-group therapy used a Cognitive Behavioral Therapy (CBT) model for substance abuse treatment, with one therapist leading group sessions of four to six youth in interpersonal/intrapersonal skills training. Assessments were conducted at intake (baseline), 6 weeks after intake, treatment termination, and 6 and 12 months after intake. Findings from this study included: • Although reported externalizing symptoms (YSR) decreased from intake to treatment termination among participants in both conditions ($p < .001$), they decreased faster among MDFT participants ($p < .05$). • Participants in both treatment conditions reported fewer internalizing symptoms (YSR) from intake to treatment termination ($p < .001$). • Although reported internalized stress (GAIN General Mental Distress Scale) decreased over the 12-month follow-up period among participants in both conditions, it decreased faster among MDFT participants ($p < .01$), a difference associated with a medium effect size (Cohen's $d = 0.54$). • From intake to treatment termination, reported family cohesion (Moos FES) increased among MDFT participants and decreased among peer-group therapy participants ($p < .001$). • MDFT participants had greater improvements in reported family interactions (ADI) during treatment than peer-group therapy participants ($p < .05$), a difference associated with a small effect size (Cohen's $d = 0.27$). This finding persisted across the 6- and 12-month follow-ups but was not statistically significant. • Although reported involvement with delinquent peers (NYS Peer Delinquency subscale) decreased from intake to treatment termination among participants in both conditions ($p < .001$), it decreased faster among MDFT participants ($p < .01$), a difference associated with a medium effect size (Cohen's $d = 0.67$). Both findings persisted across the 6- and 12-month follow-ups but were not statistically significant. • Self-reports of disruptive behaviors in school (CTRADA Adolescent Interview) decreased from intake to treatment termination among participants in both conditions ($p < .001$), but MDFT participants reported fewer school disruptions than peer-group therapy participants across the treatment period ($p < .01$). • Participant self-reports of academic and school conduct problems (CTRADA Adolescent Interview) decreased from intake to treatment termination across both treatment conditions ($p < .001$).
Studies Measuring Outcome	Study 1, Study 3
Study Designs	Experimental
Quality of Research Rating	3.5 (0.0-4.0 scale)

Outcome 7: School performance	
Description of Measures	In one study, school performance was measured using academic grade point average (GPA). In another study, school performance was measured using academic GPA, conduct GPA (which reflects nonacademic functioning such as effort, participation, and behavior), and absentee frequency.
Key Findings	In an RCT, marijuana- and alcohol-abusing adolescents were assigned to one of three manual-based treatment conditions--MDFT, adolescent group therapy (AGT), or multifamily educational intervention (MEI)--consisting of 14 to 16 90-minute sessions conducted over 5 to 6 months in an outpatient office or clinic. MDFT used a family therapeutic approach with individual families, while MEI served groups of three or four families in a more structured, psychoeducational setting. AGT consisted of groups of six to eight adolescents led by two therapists and emphasized the development of social skills, self-control, self-acceptance, and problem-solving skills. School records were obtained for the semester immediately before treatment, the semester immediately after treatment, and during the follow-up period between 6 and 12 months after treatment. Findings from this study included: • At the 12-month follow-up, 76% of MDFT participants had a GPA of at least 2.0 (a C average or better), compared with 60% of AGT and 40% of MEI participants ($p = .05$). In another RCT, adolescents referred to a community outpatient drug abuse treatment clinic were assigned to one of two manual-based treatment conditions--MDFT or peer-group therapy--consisting of 90-minute sessions conducted twice weekly over 3-4 months. MDFT sessions took place mainly in the home, while peer-group therapy sessions took place mainly in outpatient clinic offices. Case management services were available to adolescents in both conditions. Peer-group

	therapy used a Cognitive Behavioral Therapy (CBT) model for substance abuse treatment, with one therapist leading group sessions of four to six youth in interpersonal/intrapersonal skills training. School records were obtained for one grading period prior to study entry and four grading periods following study entry. Findings from this study included: • From intake to the 12-month follow-up, conduct GPA improved for MDFT participants and worsened for peer-group therapy participants ($p < .05$), a difference associated with a small effect size (Cohen's $d = 0.21$). • MDFT participants had stable school absentee rates across the 12-month follow-up period, compared with peer-group therapy participants, who showed increasing absentee rates ($p < .05$). This difference was associated with a small effect size (Cohen's $d = 0.35$).
Studies Measuring Outcome	Study 1, Study 3
Study Designs	Experimental
Quality of Research Rating	2.9 (0.0-4.0 scale)

Outcome 8: Delinquency	
Description of Measures	Delinquency was measured using the National Youth Survey's Self-Report Delinquency (SRD) Scale, which measures delinquent/criminal behavior on five subscales: total delinquency, general theft, crimes against persons, index offenses, and drug sales. Data from the survey were supplemented by juvenile justice records of arrests and probation status.
Key Findings	In an RCT, adolescents referred to a community outpatient drug abuse treatment clinic were assigned to one of two manual-based treatment conditions--MDFT or peer-group therapy--consisting of 90-minute sessions conducted twice weekly over 3-4 months. MDFT sessions took place mainly in the home, while peer-group therapy sessions took place mainly in outpatient clinic offices. Case management services were available to adolescents in both conditions. Peer-group therapy used a Cognitive Behavioral Therapy (CBT) model for substance abuse treatment, with one therapist leading group sessions of four to six youth in interpersonal/intrapersonal skills training. Assessments were conducted at intake (baseline), 6 weeks after intake, treatment termination, and 6 and 12 months after intake. Supplemental juvenile justice records were obtained for the year prior to and following treatment intake. Findings from this study included: • During the 12-month follow-up period, the reported number of delinquent acts declined faster for MDFT participants than for peer-group therapy participants ($p < .05$), a difference that was associated with a small effect size (Cohen's $d = 0.31$). • Compared with peer-group therapy participants, MDFT participants were less likely to be arrested (44% vs. 23%, $p = .037$) or placed on probation (30% vs. 10%, $p = .022$) during the 12 months of follow-up. These differences reflect a small to medium effect size (odds ratio = 2.73 and 4.35, respectively).
Studies Measuring Outcome	Study 3
Study Designs	Experimental
Quality of Research Rating	3.6 (0.0-4.0 scale)

Outcome 9: Cost effectiveness	
Description of Measures	Cost effectiveness was measured by the average daily cost of an adolescent achieving abstinence from substance use and the cost of an adolescent being in recovery 12 months after intake. Abstinence from substance use was measured using the GAIN and was defined by the total number of abstinent days during the 12-month period following intake. Recovery was defined as living in the community (as opposed to living in a correctional facility, inpatient treatment program, or other controlled environment) and reporting no past-month substance use, abuse, or dependence problems at the 12-month follow-up. Cost estimates were based on data collected using the Drug Abuse Treatment Cost Analysis Program (DATCAP), which measures both the accounting and opportunity costs of a substance abuse treatment program based on standard economic principles. DATCAP was supplemented with service contact logs completed by therapists and case managers.

Key Findings	In two trials of a randomized controlled study, five manual-driven treatment interventions for adolescents with cannabis-related disorders were compared. Trial 1 compared the following interventions at two sites: • Motivational Enhancement Therapy/Cognitive Behavioral Therapy with 5 sessions (MET/CBT5) • MET/CBT with 12 sessions (MET/CBT12) • Family Support Network (FSN) Trial 2 compared the following interventions at two sites: • MDFT • Adolescent Community Reinforcement Approach (A-CRA) • MET/CBT5 In both trials, assessments were conducted at intake and at 3-, 6-, 9-, and 12-month follow-ups. Findings from these trials included: • Across both trial 2 sites, the average cost per day of abstinence for MDFT participants was $10.38, compared with $6.62 for A-CRA participants and $9.00 for MET/CBT5 participants. Only one of the two sites in trial 2 showed a significant condition difference between MDFT and A-CRA ($12.79 vs. $8.09, $p < .05$), a difference that reflects a small effect size (Cohen's $f = 0.23$). • In trial 2, the average cost per participant in recovery at the 12-month follow-up was $7,615 and varied significantly by condition after controlling for site and recovery status in the month prior to intake ($p < .05$). On average, the cost of an MDFT participant in recovery at the 12-month follow-up was $11,775, compared with $4,460 for an A-CRA participant and $6,611 for an MET/CBT5 participant. This difference was associated with a large effect size (Cohen's $f = 0.78$).
Studies Measuring Outcome	Study 4
Study Designs	Experimental
Quality of Research Rating	3.5 (0.0-4.0 scale)

Study Populations

The following populations were identified in the studies reviewed for Quality of Research.

Study	Age	Gender	Race/Ethnicity
Study 1	13-17 (Adolescent)	80.2% Male 19.8% Female	51.1% White 18.1% Black or African American 14.8% Hispanic or Latino 9.9% Race/ethnicity unspecified 6% Asian
Study 2	13-17 (Adolescent)	81.3% Male 18.8% Female	71.9% Black or African American 17.9% White 10.3% Hispanic or Latino
Study 3	6-12 (Childhood) 13-17 (Adolescent)	72.5% Male 27.5% Female	48.8% Black or African American 42.5% Hispanic or Latino 5% Race/ethnicity unspecified 3.8% White
Study 4	13-17 (Adolescent)	83% Male 17% Female	61% White 30% Black or African American 5% Race/ethnicity unspecified 4% Hispanic or Latino

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
4. Missing data and attrition

2. Validity of measures
3. Intervention fidelity
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data / Attrition	Confounding Variables	Data Analysis	Overall Rating
1: Substance use	3.8	3.8	3.5	2.6	2.6	2.9	**3.2**
2: Substance use-related problem severity	3.2	2.9	3.6	2.9	3.1	3.0	**3.1**
3: Abstinence from substance use	3.8	3.7	3.5	2.9	3.0	2.9	**3.3**
4: Treatment retention	3.2	2.7	3.8	3.0	3.7	3.7	**3.3**
5: Recovery from substance use	4.0	3.9	4.0	4.0	3.6	3.5	**3.8**
6: Risk factors for continued substance use and other problem behaviors	3.6	3.5	4.0	3.0	3.5	3.4	**3.5**
7: School performance	2.6	2.8	4.0	2.2	3.1	3.0	**2.9**
8: Delinquency	3.0	3.0	4.0	3.9	3.8	3.8	**3.6**
9: Cost effectiveness	3.3	3.5	3.9	3.5	3.5	3.5	**3.5**

Study Strengths

Two of the studies used self-report scales shown to have strong psychometric properties when used with similar populations. In one study, the outcome measure for substance use was a rating across three data sources--self-report, collateral (parent) report, and urinalysis--determined by clinicians with high interrater agreement who were "blinded" to condition assignment and assessment phase. The same study had high interrater agreement among research assistants who rated family risk factors after watching videotaped family interactions. Information on personal and family risk factors, school performance, acting-out behaviors, and delinquency supplemented the usual key outcomes addressed in adolescent substance abuse treatment studies. Intervention fidelity was strong across the four studies, with excellent engagement and follow-up rates in two of the studies.

Study Weaknesses

In two of the four studies, attrition rates were high, and it was unclear how many participants were actually exposed to some minimal dose of each treatment condition. In one study, the researchers failed to distinguish between dropout from treatment (treatment retention) and attrition from the research study (missing data), a confound that was complicated by a lack of discussion on how missing data were handled in the analyses.

Readiness for Dissemination

Review Date: June 2008

Materials Reviewed

The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information regarding implementation of the intervention and the availability of additional, updated, or new materials.

- Forms:
  - Adolescent/Family Needs Assessment
  - Case Conceptualization Form
  - Daily School Attendance Record
  - Extrafamilial Assessment in Stage One
  - Guidance Study Therapist Practice Scales, Therapist Version
  - MDFT Intervention Inventory Rating Form
  - MDFT--The First Session Standard Planning Sheet
  - MDFT Therapist Assistant Task List
  - MDFT Therapist Session Planning and Implementation Log
  - MDFT Weekly Case Summary Form
  - Therapist Assistant Logs
  - Therapist Behavior Rating Scale, 6th Version (TBRS-6) (2004, September 13)

- Therapist Intervention Inventory, Version 2 (2008, September 11)

Guidelines for Working With African American Clients

Guidelines for Working With Hispanic and Haitian Immigrant Clients

Hogue, A., Dauber, S., Chinchilla, P., Fried, A., Henderson, C., Inclan, J., et al. (2008). Assessing fidelity in individual and family therapy for adolescent substance abuse. Journal of Substance Abuse Treatment, 35(2), 137-147.

Hogue, A., Dauber, S., Samuolis, J., & Liddle, H. A. (2006). Treatment techniques and outcomes in multidimensional family therapy for adolescent behavior problems. Journal of Family Psychology, 20(4), 535-543.

Hogue, A., Liddle, H. A., Dauber, S., & Samuolis, J. (2004). Linking session focus to treatment outcome in evidence-based treatments for adolescent substance abuse. Psychotherapy: Theory, Research, Practice, Training, 41(2), 83-96.

Hogue, A., Liddle, H. A., Rowe, C., Turner, R. M., Dakof, G. A., & LaPann, K. (1998). Treatment adherence and differentiation in individual versus family therapy for adolescent substance abuse. Journal of Counseling Psychology, 45(1), 104-114.

Hogue, A., Liddle, H. A., Singer, A., & Leckrone, J. (2005). Intervention fidelity in family-based prevention counseling for adolescent problem behaviors. Journal of Community Psychology, 33(2), 191-211.

Introduction to the MDFT Online Learning Center

Introduction to the MDFT Online PDA Program

Liddle, H. A. (2007). Multidimensional Family Therapy for adolescent substance abuse and delinquency: Treatment manual. Miami, FL: University of Miami, Center for Treatment Research on Adolescent Drug Abuse.

Liddle, H. A. (n.d.). Multidimensional therapy means multidimensional training and supervision [PowerPoint slides].

MDFT Fact Sheet

MDFT Intervention Guide

MDFT Session Guidelines 1-6

MDFT Session Supplements A-E

MDFT Testing & Assessment Questions

MDFT Training Program Overview (2008, January 15)

MDFT Training: Site Orientation and Checklist

Program Web site, http://www.med.miami.edu/ctrada/x64.xml

Scoring Manual for the Therapist Behavior Rating Scale, 6th version (TBRS-6) (2004, September 28)

Therapist Self-Supervision Guidelines

University of Miami, Center for Treatment Research on Adolescent Drug Abuse. (2005). Getting connected: A practical guide for families. Miami, FL: Author.

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating

4.0	4.0	2.8	**3.6**

Dissemination Strengths

Implementation materials thoroughly explain the key programmatic and therapeutic concepts of this intervention. Sample session scripts are helpful in portraying how sessions are structured and implemented. The comprehensive training and certification process accommodates an array of therapist skill levels. A pretraining site assessment is conducted to customize the training. Extensive support resources are available to implementers. Several tools, including session planning forms, implementation logs, and fidelity measures, are available to support quality assurance.

Dissemination Weaknesses

Little guidance is provided on assessing client outcomes. An overall plan for implementing quality assurance processes is not described.

Costs

The cost information below was provided by the developer. Although this cost information may have been updated by the developer since the time of review, it may not reflect the current costs or availability of items (including newly developed or discontinued items). The implementation point of contact can provide current information and discuss implementation requirements.

Item Description	Cost	Required by Developer
Urine testing kits (instant)	Varies	Yes
Therapist certification (includes all implementation materials, case consultation, DVD review, live supervision, ratings of recorded sessions, adherence monitoring)	$4,500 per person	Yes
Therapist/supervisor certification (includes all implementation materials, case consultation, DVD review, live supervision, ratings of recorded sessions, adherence monitoring)	$6,500 per person	Yes
Annual 1- to 3-day, on-site booster training	$1,000 per day plus travel expenses	Yes
Annual therapist supervisor recertification	About $300 per person	Yes
Pretraining implementation consultation	Free	Yes

Additional Information

Although start-up costs vary by geographic location, each site that implements MDFT must have at least two full-time master's-level therapists and one part-time bachelor's-level or paraprofessional case manager. Other start-up costs are associated with cellular phones for therapists and the case manager, urine test kits for drug testing, ground transportation for conducting in-home sessions, and audiovisual equipment (video camera, tripod, digital videotapes, and digital audio recorder) for recording and reviewing sessions. The cost per youth per treatment episode ranges from $2,000 to $9,000, depending on local salaries, administrative costs, the youth's problem severity and length of treatment, and other factors.

Replications

Selected citations are presented below. An asterisk indicates that the document was reviewed for Quality of Research.

* Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., et al. (2004). The Cannabis Youth Treatment (CYT) Study: Main findings from two randomized trials. Journal of Substance Abuse Treatment, 27(3), 197-213.

Henderson, C. E., Dakof, G. A., Greenbaum, P. E., & Liddle, H. A. (2010). Effectiveness of Multidimensional Family Therapy with higher severity substance-abusing adolescents: Report from two randomized controlled trials. Journal of Consulting and Clinical Psychology, 78 (6), 885-897.

Henderson, C. E., Rowe, C. L., Dakof, G. A., Hawes, S. W., & Liddle, H. A. (2009). Parenting practices as mediators of treatment effects in an early-intervention trial of Multidimensional Family Therapy. American Journal of Drug and Alcohol Abuse, 35(4), 220-226.

Liddle, H. A., Dakof, G. A., Henderson, C. E., & Rowe, C. L. (2011). Implementation outcomes of Multidimensional Family Therapy-Detention to Community: A reintegration program for drug-using juvenile detainees. International Journal of Offender Therapy and Comparative Criminology, 55(4), 587-604.

* Liddle, H. A., Dakof, G. A., Parker, K., Diamond, G. S., Barrett, K., & Tejeda, M. (2001). Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial. American Journal of Drug and Alcohol Abuse, 27(4), 651-688.

* Liddle, H. A., Dakof, G. A., Turner, R. M., Henderson, C. E., & Greenbaum, P. E. (2008). Treating adolescent drug abuse: A randomized trial comparing multidimensional family therapy and cognitive behavior therapy. Addiction, 103(10), 1660-1670.

Liddle, H. A., Jackson-Gilfort, A., & Marvel, F. A. (2006). An empirically supported and culturally specific engagement and intervention strategy for African American adolescent males. American Journal of Orthopsychiatry, 75(2), 215-225.

Liddle, H. A., Rowe, C. L., Dakof, G. A., Henderson, C. E., & Greenbaum, P. E. (2009). Multidimensional Family Therapy for young adolescent substance abuse: Twelve month outcomes of a randomized controlled trial. Journal of Consulting and Clinical Psychology, 77 (1), 12-25.

* Liddle, H. A., Rowe, C. L., Dakof, G. A., Ungaro, R. A., & Henderson, C. E. (2004). Early intervention for adolescent substance abuse: Pretreatment to posttreatment outcomes of a randomized clinical trial comparing Multidimensional Family Therapy and peer group treatment. Journal of Psychoactive Drugs, 36(1), 49-63.

Liddle, H. A., Rowe, C. L., Gonzalez, A., Henderson, C. E., Dakof, G. A., & Greenbaum, P. E. (2006). Changing provider practices, program environment, and improving outcomes by transporting multidimensional family therapy to an adolescent drug treatment setting. American Journal on Addictions, 15(Suppl. 1), 102-112.

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Consider these Questions to Ask (PDF, 54KB) as you explore the possible use of this intervention.

Web Site(s):

- **http://www.mdft.org/**