

# Treating Cannabis-Dependent Adolescents with Family Therapy: The case of Multidimensional Family Therapy

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## SUMMARY POINTS

- In adolescents, cannabis dependence often is part of multiple problem behavior. Treatment should focus on all problem behaviors to yield lasting effects on cannabis abuse and other behaviors.
- Cannabis dependent adolescents need treatment when there is a risk the condition will persist into adulthood. Risk factors for persistence are early start in life of cannabis use, and the combination of cannabis abuse with other problem behaviors.
- There is a range of cannabis treatments. The best treatment option for cannabis dependent adolescents consists in family/systems therapies, most notably Multidimensional Family Therapy (MDFT).
- An important feature of MDFT is its exceptional ability to interest adolescents and their parents to accept and follow the treatment. Key here are so-called motivational interventions, a rich arsenal of ways to enhance treatment motivation.
- MDFT is effective in populations with different ethnic backgrounds, and across countries (United States, Western Europe), despite huge variations in referral practices, treatment settings, and treatment policies.
- Implementation of a treatment program is hard work, requiring interventions at the levels of the therapist, the team, the treatment center, the funding agency, and local/regional and national policy makers. Each country has its own set of implementation challenges.

## KEY FACTS OF CANNABIS DEPENDENCE

- Personal and social troubles of adolescents more strongly predict that they will develop cannabis dependence, than do the dose and potency of the cannabis preparation.
- At least half of cannabis dependent youth exhibit other problem behaviors as well, such as truancy, or criminality. Mental comorbidity is common.
- In many young adults, cannabis dependence dissipates without any treatment being given. However, in adolescents starting to take cannabis early in life, and showing other problem behaviors as well, cannabis dependence often persists, unless treatment is being offered.
- Cannabis dependence in youth is sensitive to treatment.
- Treatment works best if it takes into account the multiplicity of problem behaviors, rather than focusing on just one condition, such as cannabis dependence.

## LIST OF ABBREVIATIONS

<b>BSFT</b>	Brief Strategic Family Therapy
<b>CBT</b>	Cognitive behavioral therapy
<b>DSM</b>	Diagnostic Statistical Manual, version IV
<b>EMCDDA</b>	European Monitoring Centre for Drugs and Drug Abuse
<b>FFT</b>	Functional family therapy

<b>INCANT</b>	The International Cannabis Need of Treatment trial
<b>MDFT</b>	Multidimensional family therapy
<b>MST</b>	Multisystemic therapy
<b>NREPP</b>	National Registry of Evidence-based programs and practices
<b>SAMSHA</b>	Substance Abuse and Mental Health Services Administration, US Ministry of Health

## DO CANNABIS DEPENDENT YOUTH NEED TREATMENT?

This chapter focuses on adolescents, aged 12 through 18 years. Many youth experiment with taking cannabis, often occasionally but sometimes frequently. Across European Union member states and allied countries, at least 2% of youth consume cannabis daily or nearly every day (European Monitoring Centre for Drugs and Drug Abuse (EMCDDA), 2014a).

Frequent use of the drug does not necessarily lead to a cannabis use disorder, such as cannabis dependence. There is no simple dose-response relationship here. Personal and social troubles are stronger predictors of upcoming cannabis dependence than the number of joints smoked and the potency of the cannabis preparation are (van der Pol et al., 2013b).

Cannabis dependence may be transient. Over the years, many adults stop using cannabis or diminish their level of consumption on their own accord, without treatment. In a Dutch study, seven out of ten young cannabis dependent adults reduced their level of consumption of the drug in 3 years' time such that the diagnosis "cannabis dependence" no longer applied. Most of them had not sought any professional help (van der Pol, 2014).

In adolescents, however, cannabis dependence is quite persistent if starting at a young age and when combined with other problem behavior (Chassin, 2008; Hussong, Curran, Moffitt, Caspi, & Carrig, 2005). If untreated, cannabis dependence may affect education and life satisfaction levels of the users (Fergusson & Boden, 2008). When cannabis dependence might get persistent, treatment is to be recommended (van der Pol, 2014).

Frequent use of cannabis and cannabis dependence are associated with concurrent problem behavior, such as aggression, delinquency and truancy, and with mental comorbidity (Hussong et al., 2005; Phan et al., 2011; van der Pol et al., 2013a). Many young people with cannabis dependence are best described as youth with multiple problem behavior. Therefore, treatment needs to be multifocal, that is, it should not only address cannabis use, but other problems as well. The therapist may help the adolescent in reducing drug consumption, but if other problems as the ones mentioned are ignored, the youth

will soon relapse into abusing drugs. For a treatment to be lastingly successful, it should target not just cannabis, but all major problem behaviors (Rigter et al., 2014).

So, cannabis dependent youth may need treatment. However, they rarely seek treatment on their own initiative. Treatment seeking for cannabis dependence is on the increase for adults, but less so for adolescents (European Monitoring Centre for Drugs & Drug Abuse, 2014a). In the five-cities European cannabis treatment trial INCANT—to be discussed subsequently—few adolescents sought treatment themselves. Quite a few youth in Brussels and Paris were referred to treatment by parents, one important reason in Paris being interim school reports warning their child might fail to pass to the next class at the end of the year (which, in Paris, would mean the young person would have to be expelled from school). One way to look at referral is by distinguishing externally coerced from noncoerced (self-determined) treatment seeking. Coercion is not only executed by Justice authorities, but also by treatment and care agencies or sometimes schools when the youth is sanctioned for not accepting treatment, such as "being kicked out." Coerced referral was common in The Hague (88%), Geneva (73%) and Berlin (54%), and uncommon in Brussels and Paris (Phan et al., 2011). Clearly, treatment and referral systems vary widely between countries. A positive outcome noticed in just one country cannot be taken as evidence for universal effectiveness of the intervention program concerned.

## WHICH TREATMENTS ARE EFFECTIVE IN YOUTH WITH A CANNABIS USE DISORDER?

Adolescents with problem behavior can be treated individually or in groups of peers. Another treatment option is systems therapies, comprising family therapies as discussed in this chapter. Family therapies include sessions with the parents and with the family (parents plus youth), respectively, while other sessions—depending on the type of program—target the individual adolescent.

To reach youth who shy away from face to face treatment, treatment centers are experimenting with interventions to be offered on the computer or through internet. These interventions may be based on algorithms giving the youth access to information and to relevant tips to reduce substance use. Other interventions are similar, but allow for limited internet guidance by a therapist. According to a recent meta-analysis (Tait, Spijkerman, & Riper, 2013), such computer and internet assisted interventions are helpful in reducing cannabis use. However, the size of the effect is small—smaller than for treatments with face-to-face contact between user and therapist.

The cannabis users participating in the research studies analyzed were of all ages, but mostly adolescents and young adults (Tait et al., 2013). They were regular users of cannabis, often without clearly established cannabis dependence.

As for face to face treatment, interventions such as motivational interviewing, contingency management and cognitive behavioral therapy (CBT) should be mentioned. Elements of these approaches have been incorporated in family therapies. In adults, CBT appears to diminish cannabis and other substance abuse. This conclusion is tentative as an important part of the evidence relies on the outcomes of randomized trials in which CBT was compared with placement of persons on a waiting list (Davis et al., 2015), which is not top of the bill research methodology.

Also in adolescents, CBT may decrease cannabis and other substance use, but the evidence here is even weaker. Going from meta-analysis to meta-analysis, the balance for adolescent substance abuse CBT swings from effective to noneffective. Taken together, the verdict tends to be “effective” (Bender, Tripoli, Sartechi, & Vaughn, 2011; Waldron & Turner, 2008).

Family therapies are evidence based treatments for substance abusing adolescents (Baldwin, Christian, Berkeljon, & Shadish, 2012; Bender et al., 2011). In meta-analyses, these therapies as a group—data pooled for analysis purposes—are at least as effective as CBT in diminishing substance use. In trials directly comparing family therapy, such as Multidimensional Family Therapy (MDFT), with CBT, family therapy scored better in particular subgroups (the most impaired youth) and on several key measures. One example is a trial comparing MDFT with CBT. Both treatments helped adolescents to reduce their substance use as measured at 6-months follow-up, but the effect of MDFT grew stronger afterwards while the effect of CBT became weaker (Henderson, Dakof, Greenbaum, & Liddle, 2010).

Family therapies include MDFT, Multisystemic Therapy (MST), Functional Family Therapy (FFT) and Brief Strategic Family Therapy (BSFT). Analyses of pooled data indicate that these treatment programs are beneficial for adolescents in several ways. Cannabis consumption and other substance use decline. Delinquency, measured by the number of criminal offenses committed, decreases (Baldwin et al., 2012; Von Sydow, Retzlaff, Beher, Haun, & Schweitzer, 2013).

MDFT, MST, FFT, and BSFT have never been compared with each other in randomized controlled trials. The presently available meta-analysis data do not allow us to tell which family therapy works best (Baldwin et al., 2012). The EMCDDA decided to evaluate outcome data of cannabis treatment programs for adolescents using strict effectiveness criteria. This expert center concluded that only one treatment program met all

criteria set, that is, MDFT (European Monitoring Centre for Drugs & Drug Abuse, 2013). A systematic literature review by the EMCDDA confirmed MDFT's value (European Monitoring Centre for Drugs & Drug Abuse, 2014b). The US Ministry of Health acknowledges just one family therapy as being helpful in combating adolescent substance abuse and other problem behavior, while being implementable in daily clinical practice. That family therapy was MDFT, <http://www.nrepp.samhsa.gov/CERSeries.aspx>.

The remainder of this chapter will focus on MDFT.

## MULTIDIMENSIONAL FAMILY THERAPY IN A NUTSHELL

MDFT has been developed by Howard Liddle, presently at the University of Miami Medical Center, and his colleagues. It is a comprehensive, family-centered and developmentally-oriented treatment program for adolescents presenting with single or multiple problem behavior combinations of substance abuse, truancy and delinquency (Liddle & Rigter, 2013; Rigter et al., 2014). Mental and behavioral comorbidity is common among these youth.

Underlying theory in MDFT is the notion that an adolescent's problem behavior is multidimensionally determined, that is, is being shaped by factors from all major domains in the life of the youth. The first domain is the youth themselves: their personality, their experiences, their stage of development, their genes. The second one pertains to the parents, and the third one to the family: parents and young people in mutual interaction, possibly extending to other family members. The fourth domain consists of systems—social groups and structures—outside the family. Friends and peers of the youth are important. School, work, and leisure time activities do matter, as well. Police, Justice, and probation officers are also part of the fourth domain, especially when the young person has been arrested or convicted. In line with the distinction in domains, an MDFT therapist holds four types of sessions, that is, with the young person alone; with the parent(s) alone; with the family (youth and parents); and with representatives of other systems (friends, school mentor, etc.) present.

Aim of MDFT is to reduce substance abuse, to decrease antisocial behavior, and to prevent criminal recidivism, by achieving improvement in all four domains. The means to get these goals realized include the interventions listed in Table 108.1.

MDFT is carried out by certified MDFT therapists, who work in teams, one being the supervisor of the team. Training is practice-oriented, with the trainer regularly visiting the treatment center, and holding detailed consultation calls, and with the trainee sending in video-

**TABLE 108.1** Main Interventions in MDFT

- Enhancing the motivation of the youth and parent(s) to accept and complete treatment
- Teaching the youth how to avoid and handle risky, problem behavior eliciting situations and how to be more selective in the choice of friends and leisure time activities
- Relapse prevention: helping the youth to resist substance abuse and crime provoking stimuli
- Improving family functioning and communication between family members, and resolving and preventing conflicts between parent(s) and their child
- Strengthening parental skills
- Outreaching interventions: the therapist contacts other systems as mentioned and wins support for arrangements (eg, adapted school program; or diverting the youth away from detention to community) that would benefit the youth.

tapes of treatment sessions in order to receive feedback and advice (Rigter et al., 2014).

MDFT is based on a manual, but is to some extent flexible. The therapist is expected not to just follow rules, but to take his or her own responsibility as well. On average, there are two sessions per week, for 4–6 months. The sessions take place at the therapist's office, or the family's home, or any other convenient place. Being an MDFT therapist means being the spider in the web for all treatment and guidance issues relevant to the particular young person and their family.

## THE EFFECTS OF MULTIDIMENSIONAL FAMILY THERAPY

MDFT, delivered in outpatient settings, has been examined extensively in the United States. Eight randomized trials have been completed and another three are underway (Liddle & Rigter, 2013; Rigter et al., 2014). In

these trials the researchers followed a methodologically strong approach by not comparing MDFT with an inactive control condition, but rather with active comparison treatments, namely:

- Youth: individual counseling,
- Youth: group counseling,
- Parents/families: group counseling,
- Youth: individual CBT,
- Youth: residential treatment.

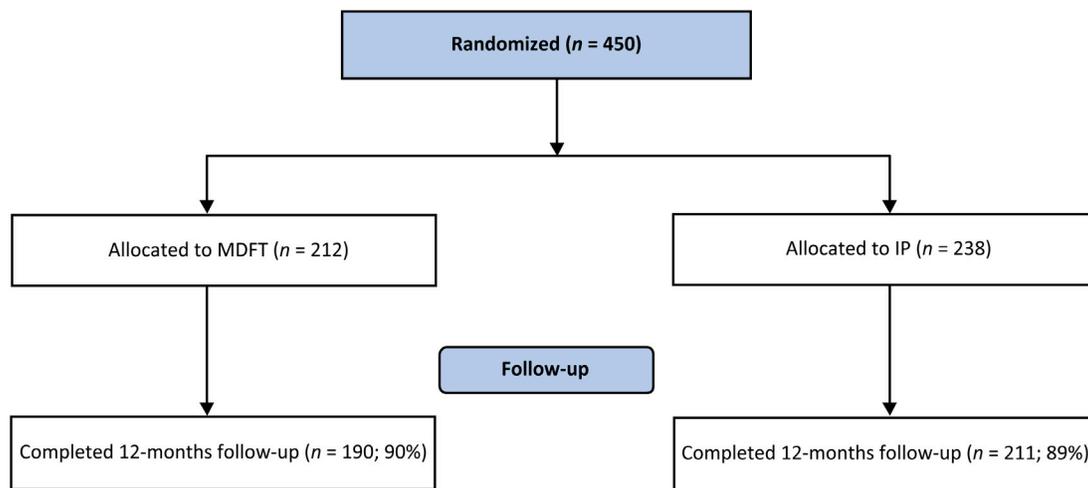
An independent replication study has been carried out in Europe (2006–10). The study was named INCANT, the International Cannabis Need of Treatment trial (2006–10). It was set up on the initiative of government members of five Western European countries (Rigter et al., 2010). Subjects were 450 adolescents and their parents visiting treatment sites in Brussels, Berlin, Paris, The Hague, and Geneva (60–120 cases per site). The sites were quite different (Table 108.2), yet treatment results were similar.

INCANT was a randomized controlled trial with an open-label, parallel group design. The study compared 6 months of MDFT with individual psychotherapy, including CBT, at and across the sites mentioned. Assessments were at baseline and at 3, 6, 9, and 12 months after randomization. Fig. 108.1 shows the trial flow diagram. Note the low percentage of cases that were lost to 12-months follow-up (no more than about 10%); the data are strong because most study participants were willing to remain in the study. Of note, too, was the choice of the researchers to not exclude cases from the trial if not absolutely needed. The trial population reflected the diversity of adolescents and families seen in every day's clinical practice, which lends credence to the validity of the study outcomes. 85% of the INCANT adolescents were male. They all had a cannabis disorder, mostly

**TABLE 108.2** Characteristics of the Treatment Sites in the International Cannabis Need of Treatment Trial

Site	Treatment sector	Location	Public or private
Belgium	Addiction care; mental health care	Brussels University affiliated outpatient clinic	Public MDFT funded by the federal government
France	Addiction care	Paris and suburbs Part of national addiction treatment infrastructure	Public MDFT funded by the federal government
Germany	Addiction care and youth care	Berlin Part of regional (state level) addiction treatment infrastructure	Public MDFT funded by federal and local governments
The Netherlands	Addiction care Forensic youth care	The Hague Part of national and regional addiction and forensic treatment infrastructures	Public Reimbursed by health insurance funds
Switzerland	Addiction care	Geneva Part of regional addiction and forensic treatment infrastructures	Public–private mix Mostly reimbursed by health insurance and social funds

Adapted from Rigter et al. (2013), courtesy of *Drug and Alcohol Dependence*



**FIGURE 108.1** The International Cannabis Need of Treatment trial flow diagram. Across five West European sites, 450 adolescents plus one or both of their parents were included in the INCANT study, randomized across two treatment conditions and followed up for 3, 6, 9, and (shown here) 12 months. MDFT, Multidimensional Family Therapy; IP, individual psychotherapy (comparison treatment); *n*, the number of families. Adapted from Rigter et al. (2011b). Copyright holder H. Rigter, the present author.

(80%) cannabis dependence. One-third was delinquent (Phan et al., 2011).

INCANT trial outcomes included:

- The ability of European therapists to properly carry out MDFT,
- Treatment retention of adolescents and their parents,
- Treatment satisfaction,
- Reduction of cannabis-related problems,
- Reduction of criminality-related behavioral symptoms.

MDFT-trained European therapists scored well on measures of treatment integrity, also called “adherence,” even somewhat better than American colleagues in US MDFT trials (Rowe et al., 2013). In INCANT, like in the US trials, MDFT succeeded in engaging and retaining 90% of the adolescents and their parents in treatment, while the corresponding percentage for the comparison treatment, with one exception, was two to three times lower (Rowe et al., 2013). Adolescents and parents were pleased with MDFT, more so than with the comparison treatment. Adolescents and parents agreed when rating treatment satisfaction. High treatment satisfaction scores predicted better treatment outcomes (Phan, 2014).

Following treatment, the diagnosis “cannabis dependence” became less prevalent. In MDFT, six out ten originally cannabis dependent youth were no longer classified as such 1 year after randomization. The comparison treatment was less effective in this regard (Fig. 108.2; Rigter et al., 2013). In addition, both treatments reduced rates of cannabis consumption. In adolescents who were the most severe users of cannabis at baseline—the “heavy cases”—MDFT outperformed individual

psychotherapy, the comparison treatment, in decreasing cannabis use rates (Rigter et al., 2013).

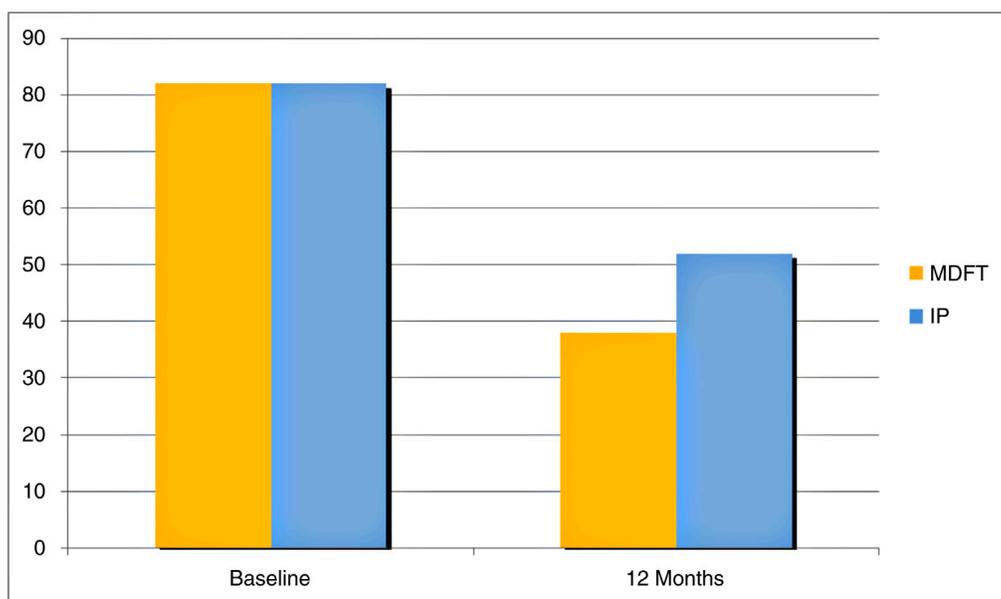
As for so-called secondary outcomes, MDFT more than comparison treatment diminished symptoms of externalizing mental disorders, which are commonly seen as risk factor for developing criminal behavior (Schaub et al., 2014). The five European sites differed markedly in terms of addiction care, youth care, school policies and juvenile Justice procedures (Table 108.2; Rigter et al., 2011b). MDFT was effective in all settings and under all circumstances (Rigter et al., 2011a, 2013). One-third of the INCANT adolescents was part of an ethnic minority group. MDFT was effective regardless of ethnic background and also regardless of referral being coerced or not (Rigter et al., 2013; Schaub et al., 2014).

## IMPLEMENTATION OF MDFT IN EUROPE

When the word of MDFT spread, therapists in the Netherlands wished to be trained in this treatment program. To this end, MDFT Academy was established in 2008. The Academy is now part of the Youth Interventions Foundation. In other words, a move was made from research to implementation. We shall address a few implementation issues here.

### Accreditation

Increasingly, treatment programs need the green light of accreditation authorities and professional societies to



**FIGURE 108.2** Multidimensional family therapy exceeds active comparison treatment in decreasing the rate of cannabis dependence. Proportion (percentage) of adolescents presenting with cannabis dependence diagnosis across treatment sites at baseline and 12-month follow-up. Results from the International Cannabis Need of Treatment trial. Proportion: percentage; MDFT, Multidimensional Family Therapy; IP, individual psychotherapy. Adapted from *Rigter et al. (2013)*, courtesy of *Drug and Alcohol Dependence*.

get accepted and reimbursed as evidence based therapies. MDFT has been acknowledged and recommended by a number of US bodies, including the Substance Abuse and Mental Health Services Administration of the federal Ministry of Health (SAMSHA) (NREPP, 2014), and the National Institute of Justice (Crime Solutions, 2012). SAMSHA not only confirmed that MDFT is effective, but also selected MDFT as the only family therapy among five top treatment programs that “can be implemented with many different populations by providers of mental health and substance abuse services” (NREPP, 2014).

Accreditation of a treatment program in the United States does not suffice for European policy makers to follow suit. It needs to be proven that a treatment such as MDFT is effective and implementable in European context. INCANT provided the evidence. MDFT has now been accepted at the European Union level (EMCDDA, 2014b) and in several Western European countries. The highest hurdle to take was the Accreditation Committee of Behavioral Interventions, set up by the Dutch Ministry of Safety and Justice. This Committee uses ten accreditation criteria, requiring massive documentation. The treatment program needs to be effective and should be based on a convincing theory. Its target group—the persons to be treated—should be clearly delineated. Risk factors and protective factors should be spelled out and should be reflected in the treatment interventions to be undertaken. The treatment program should be phased, with motivating clients to accept and follow treatment at the beginning and offering aftercare at the end. Having a treatment quality assurance monitor is deemed essen-

tial. The Committee accredited MDFT in 2013. The accreditation status helped treatment centers to get MDFT reimbursed by funding agencies, such as health and social insurance companies.

### Therapists

For a therapist, MDFT means breaking with old routines. From one session with the young person/family once every 2 or 3 weeks, to two or three sessions a week. From sessions exclusively held at the office of the therapist to sessions also in the family’s home. From focus on just one problem behavior, such as cannabis abuse, to addressing all major problem behaviors and also family dysfunction. From being just one of the professionals helping the adolescent and the family to being the family’s spider in the web. From working 9–5 to being accessible for the family also outside office hours.

One would expect that therapists would resist such changes in routines. Rather, therapists—more than treatment centers and policy makers—were the driving force in getting MDFT implemented.

### Managers of Treatment Centers

Therapists may wish to change their ways, but they depend on the managers of their units. Implementation of a treatment program is bound to fail if managers are ignored or neglected. In MDFT, practitioners regularly visit the managers and convene meetings of managers to discuss issues that are relevant for their work.

## Requirements for MDFT Teams

As said, MDFT therapists are part of a team. The team consists of 3 to 6 therapists, one being the supervisor. The team meets once every week or 2 weeks to discuss cases using session planning documentation, intervention, and videotaped recordings of treatment sessions. In addition, the supervisor carries out live supervision, that is, watching a session proceed by looking through a mirror screen.

## Training

Candidate therapists and supervisors have a college or university education. They are psychologists, social workers, psychiatrists, and others, having at least a couple of years' experience in delivering psychosocial help and treatment to youth and families. The candidates are keen to learn, pragmatic, caring, nonjudgmental, energetic and skilled in communication. The supervisor must have leadership qualities. Training is given by certified trainers, recruited from the ranks of MDFT supervisors. At present in Europe, there are eight Dutch, two Belgian, three German, one French and one Swiss trainers.

Training to become a MDFT therapist or supervisor takes place in two 1-year steps. There is limited classroom (theoretical) training, namely 8 days in Year 1, followed by written exams. Training emphasis is on guiding therapists and supervisors on "the work floor," that is, in their daily clinical work. MDFT candidates videotape treatment and (supervisors) supervision sessions. The recordings are rated for treatment adherence and for treatment and supervision competence by the trainers and by independent evaluators, with ample feedback being given. The trainer regularly visits the team (site visits) for case review and live supervision. In addition, there are biweekly consultation calls between the trainer and the team.

At the end of Year 1, candidates (therapists and supervisors) passing certification requirements receive the MDFT Basic Level certificate. Training continues in Year 2, in a similar way with booster training sessions by top experts being added. At the end of Year 2, candidates meeting the requirements will be handed the MDFT Master Level certificate, which is valid indefinitely (Table 108.3).

## Licensing

MDFT Academy will grant a free license to practice MDFT to teams having at least three Master Level certified members. Once every 3 years, the license is to be renewed, following an audit showing that the team is still doing fine.

## Number of MDFT Teams in Europe

Between 2008 and 2014, close to 40 MDFT teams have been trained in the Netherlands or are still in training. Other countries are gearing up. Belgium has two teams, Finland nine, France four (with five more to come), Germany four, and Switzerland one. In 2015, five teams will be trained in Estonia. In the United States, approximately 60 MDFT teams are operational.

## Innovation

MDFT is flexible. It allows for practice adaptations rendering this treatment program suitable for use in new target groups and in new treatment settings.

From the start, MDFT was an outpatient treatment program. It still is, but nowadays MDFT is also practiced in residential settings, such as Juvenile Detention Units in the Netherlands. Family oriented work (by all prison personnel) and MDFT are started right after the young person has been detained (Mos, Jong, Eltink, & Rigtter, 2011). Sessions are held inside the Unit, during visiting hours of the parents, and during furlough when the young person is allowed to go home during weekends, initially under guidance, and then unguided. Sessions are frequent at the beginning of detention, infrequent in the middle part of detention, and increase in frequency a few months before the young person is being released. When the young person is free, MDFT continues for a while in an outpatient setting. Detention may take years. Therefore, detained/released young people may remain in MDFT treatment until the age of 23.

In the Netherlands, MDFT has also been adapted for use in residential youth care settings, targeting youth being placed out of home for any nonpenal reason (Rigtter, Erftemeyer, & Mos, 2011a). In these settings, MDFT is applied to shorten residential stay, and to provide continuity of care for young people leaving the institution. One other application is to prevent residential placement at the last moment. Think of troubled families

**TABLE 108.3** Requirements for Therapists Certified to Carry Out MDFT

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- MDFT psychotherapists are *social workers, psychologists, or psychiatrists* with experience in treating youth/families
  - The therapist is the key figure for the family for all problems (*spider in the web*)
  - The therapist works in a *team* (3–6 therapists, one being the team's supervisor)
  - *Caseload* at any given time: eight families per therapist
  - The therapist is prepared to *leave the office* (eg, for sessions at the family's home), and to be contacted outside office hours
  - He or she is interested in combining treatment and *outreaching case management*
-

with a young person to be placed out of home, with a juvenile judge's blessing, being offered the last-minute option of MDFT to avoid getting separated. In our initial experience in the residential youth care institute in The Hague in 2012, 81% of the families (youth and parents) concerned opted for placement-avoiding MDFT. MDFT healed families. None of the youth returned to be taken in after all. Preventing residential placement would save costs, adding to earlier findings that MDFT is a cost saving treatment program (French et al., 2003; Zavala et al., 2005).

Finally, MDFT has been adapted for use in youth with mild mental retardation. The effects of this application will be monitored in the next few years.

## MINI-DICTIONARY

**Accreditation** Strict assessment of a treatment program by an authority, resulting in formally acknowledgment that the program is useful.

**Cannabis dependence** In DSM-IV, the most severe of the two cannabis use disorders, the other one being cannabis abuse. To classify for the diagnosis cannabis dependence, one must meet at least 3 out of 7 criteria relating to tolerance, withdrawal, inability to stop consumption, interference with daily activities and disruption of social life.

**Certification** Providing trainees with a diploma as testimony for having met the training requirements.

**Domain** Important and treatment relevant social realm in the life of adolescents. Domains include parents, family and systems (social structures) outside the family, such as friends, school, work, leisure time activities.

**Evidence based** Proof that a treatment program is consistently achieving its intended outcomes. There are "grades" of evidence. In this chapter, the term applies to the highest grade of evidence, with the judgment being based on practice-relevant data from at least several randomized controlled trials, involving active comparison treatments, with at least one trial having been conducted by researchers independent of the developers of the treatment program.

**Family therapy** A form of systems therapy. "Systems" include the family (the youth, his or her parents, other family members), but also other social structures (see Domain). Family therapy usually involves sessions with the parents and with the family (= youth plus parents). Some family therapies, such as MDFT, also have sessions with the youth alone.

**Implementation** Transferring insights from research to daily clinical and managerial practice through a diverse set of interventions at a variety of policy levels.

**System** A social circle, network. For instance, family, friends, school.

**Treatment integrity** Also called treatment adherence. The extent in which a therapist delivers the treatment properly, that is, according to preset specifications. This is assessed in MDFT by having treatment session tapes rated by independent staff. Also by having a trainer formally evaluate treatment competence, session planning, case assessment and the drawing up of the treatment plan.

**Treatment program** The word "program" signifies that the therapy is not just a single intervention, but an array of interventions, varying across stages of treatment and per domain and treatment goal.

**Treatment retention** The extent in which a youth and his or her parents accept the treatment offered and remain in treatment for a specified time or until a particular treatment goal has been achieved.

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