

# The effectiveness of multidimensional family therapy (MDFT) versus cognitive behavioural therapy (CBT) in Dutch adolescents with a cannabis use disorder

**Submission date**

15/02/2011

**Recruitment status**

No longer recruiting

☐ Prospectively registered

☐ Protocol

**Registration date**

17/03/2011

**Overall study status**

Completed

☐ Statistical analysis plan

☒ Results

**Last Edited**

18/12/2020

**Condition category**

Mental and Behavioural Disorders

☐ Individual participant data

**Plain English summary of protocol**

Not provided at time of registration

## Contact information

**Type(s)**

Scientific

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## Additional identifiers

**Protocol serial number**

Study protocol nr. 1106812 of the Netherlands Ministry of Health, Welfare and Sports

## Study information

**Scientific Title**

The effectiveness of multidimensional family therapy (MDFT) versus cognitive behavioural therapy (CBT) in Dutch adolescents with a cannabis use disorder: a randomised controlled trial

## **Study objectives**

1. How effective is MDFT, compared to CBT, in reducing cannabis use and presence of a cannabis use disorder?
2. How effective is MDFT, compared to CBT, in attenuating the use of other psycho-active substances, internalising and externalising mental health and behavioural problems and delinquency?
3. How does the treatment retention of MDFT compare to CBT?
4. How does the satisfaction of the adolescents, parents and therapists about MDFT compare to CBT?
5. Which patient-characteristics are predictive of positive treatment-outcome in MDFT and in CBT and which patient-characteristic modify the treatment effect?
6. How do the costs of MDFT compare to CBT, in relation with the clinical results of both treatments?

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

Medical Ethics Review Committee Mental Health Settings; METiGG (Medisch-ethische Toetsingscommissie Instellingen Geestelijke Gezondheidszorg; METiGG), approved on 22nd December 2005, ref: 5238

## **Study design**

Single centre open-label parallel-group randomised controlled intervention study

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

## **Health condition(s) or problem(s) studied**

DSM-IV cannabis use disorder

## **Interventions**

Treatment in the control condition consists of five to six months outpatient CBT, focused on enhancing the patient's motivation to change his addictive behaviour and subsequently changing his maladaptive behaviours and cognitions by means of self control training, social and coping skills training and relapse prevention, based on the methods and treatment protocols of Miller and Rollnick (Miller and Rollnick, 1991), Kadden et al. (Kadden et al., 1992) and Monti and colleagues (Monti et al., 1989). Treatment is delivered by trained therapists who use a CBT treatment manual (De Wildt, 2002) and who are supervised during the course of the study by a highly experienced cognitive behavioral therapist. The treatment sessions are held with the individual adolescent on a weekly basis and with a duration of one hour each. In addition, a treatment session is scheduled once a month for the parents of the adolescent, with the goal to provide psycho-education and support and to discuss treatment progress of the adolescent. Notably, these sessions with the parents are support-oriented and not system-oriented.

Treatment in the experimental condition consists of five to six months outpatient MDFT. MDFT is a family-based and developmentally oriented treatment for adolescent substance use disorders and related problems, targeted at the functioning of the adolescents across four life

domains: the adolescent as an individual, the relationship to his parents, the relationship to other family members and the relationship to extra-familial contexts of influence, such as school, work, anti-social and/or drug using peer networks and the juvenile justice system. MDFT-therapists have individual sessions with the adolescent alone and the parents alone, sessions with the family, and sessions with family members and influential extra-familial system representatives. The MDFT sessions with adolescent, parents or family are scheduled on average twice a week, in addition to sessions or contacts with school, courts, and other persons or parties. MDFT is delivered by trained and supervised therapists, who use the MDFT treatment manual developed by the original authors (<http://kap.samhsa.gov/products/manuals/cyt>). Given that MDFT is introduced in the Netherlands in the context of the present study, therapists and supervisors are trained by the original developers of MDFT at the Center for Treatment Research on Adolescence Drug Abuse (CTRADA) of the University of Miami School of Medicine (Liddle et al., 2002) prior to the start of the study. In addition, MDFT supervisors contact trainers from CTRADA on a monthly basis during the study to receive feedback and consultation.

### **Intervention Type**

Other

### **Phase**

Not Applicable

### **Primary outcome(s)**

Study assessments take place at baseline and at three, six, nine and 12 months (end-point) following baseline.

1. Frequency of cannabis use (i.e. number of cannabis using days and number of joints smoked) in the 90 days preceding the month 12 assessment, based on the timeline follow back (TLFB) calendar method. The study data are analysed using an intent-to-treat approach, in which all patients are included that were notified about their group allocation after randomisation.

Efficacy of MDFT vs CBT in terms of the primary outcome measure is analysed by means of a 2 (treatment group: MDFT vs CBT) x 2 (time: baseline vs month 12) repeated measures MANOVA, using the baseline and month 12 datasets.

### **Key secondary outcome(s)**

1. The percentage of treatment responders at month 12-treatment responders are defined as participants who have at least 30% less cannabis using days in the 90 days preceding the month 12 assesment compared to baseline, provided that this reduction is not at the expense of a substantial increase (more than 6 days in the past month) in the use of other substances (i.e. alcohol (at least five glasses a day), cocaine, amphetamines and ecstasy). Adolescents are considered to be in recovery if they live in the community (as opposed to being incarcerated or in inpatient treatment) and are completely abstinent from cannabis, alcohol (at least five glasses a day) and any other substance use on each of the 90 days preceding the month 12 assessment.
2. The percentage of recovered adolescents at month 12
3. The number of property and violent crimes committed in the 90 days preceding the month 12 assessment
4. Treatment retention-Treatment retention is defined as the number of weeks that a treatment session was attended by the adolescent.

In addition, we calculate the total time of therapeutic contacts spent with the adolescent, parents and other family member or relevant extra-familial parties as an indicator of the total treatment dosage received. Adolescents are considered as treatment completers if they

attended a treatment session in at least 75% of the planned number of treatment weeks. Based on a planned treatment duration of at least five months (22 weeks), this amounts to a minimum of 17 treatment weeks for both conditions. The difference in percentage of treatment responders between the study groups at month 12 is analysed in a logistic regression model, with treatment group as independent variable and treatment response as outcome variable. The same approach is used for analysing the difference in percentage of recovered adolescents at month 12. Differences in delinquent behaviour (property and violent crimes) between the study groups at month 12 are tested using the same analytical approach as described for the primary outcome measure (i.e. repeated measures MANOVA). Difference in treatment retention and in percentage of treatment completers between the study groups is tested in a multivariate linear regression and logistic regression analysis, respectively, with treatment group as independent variable. Finally, Generalised Estimation Equation (GEE) is used to investigate whether the temporal course of cannabis use and delinquent behaviour differs between the adolescents in MDFT and those in CBT on each of the assessment points during the 12 months study period.

**Completion date**

01/11/2010

## Eligibility

**Key inclusion criteria**

1. A history of cannabis abuse or cannabis dependency based on Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) in at least the year preceding the baseline assessment
2. Recent, regular use of cannabis, as indicated by self-reported cannabis consumption:
  - 2.1. On two or more days a week during the three months preceding the start of the study
  - 2.2. On two or more days a week during the three months preceding the entry of a controlled environment, provided that the controlled environment directly preceded the start of the study and started not longer ago than 90 days before the start of the study
3. Age ranging from 13 to 18 years
4. At least one (step) parent or legal guardian able and willing to participate in the treatment and in the required study assessments
5. Written informed consent, by both the adolescent and his or her parent or legal guardian

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Other

**Sex**

All

**Total final enrolment**

109

**Key exclusion criteria**

1. Mental retardation, acute psychosis or acute suicidality
2. Inpatient or opioid substitution treatment is required, according to clinical judgement
3. Living outside the catchment area of the treatment centre
4. Inability to understand the Dutch language
5. Participation in another trial aimed at reduction of psycho-active substance use or delinquent behaviour

**Date of first enrolment**

01/03/2006

**Date of final enrolment**

01/11/2010

## **Locations**

**Countries of recruitment**

Netherlands

**Study participating centre**

Monsterseweg 83

The Hague

Netherlands

2553 RJ

## **Sponsor information**

**Organisation**

The Netherlands Ministry of Health, Welfare and Sport (Netherlands)

**ROR**

<https://ror.org/041evnj42>

## **Funder(s)**

**Funder type**

Government

**Funder Name**

The Netherlands Ministry of Health, Welfare and Sport (Netherlands)

# Results and Publications

## Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not provided at time of registration

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/05/2016	18/12/2020	Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes