

# A pilot study of the effectiveness of maintenance treatment by Short Message Service (SMS) in overweight and obese children after short-term multidisciplinary cognitive behavioural group therapy

**Submission date**

13/04/2010

**Recruitment status**

No longer recruiting

☐ Prospectively registered

☐ Protocol

**Registration date**

29/04/2010

**Overall study status**

Completed

☐ Statistical analysis plan

☒ Results

**Last Edited**

29/07/2013

**Condition category**

Nutritional, Metabolic, Endocrine

☐ Individual participant data

**Plain English summary of protocol**

Not provided at time of registration

## Contact information

**Type(s)**

Scientific

**Contact name**

Dr Reinier Timman

**Contact details**

Erasmus MC - Erasmus University Medical Center

Medical Psychology & Psychotherapy

Room GK 1253

P.O. Box 2040

Rotterdam

Netherlands

3000 CA

+31 (0)10 704 3804

r.timman@erasmusmc.nl

## Additional identifiers

**Protocol serial number**

METC -2007-129

# Study information

## Scientific Title

Short Message Service Maintenance Treatment (SMSMT) and the influence on dropout, lifestyle behaviour, competence and quality of life: a randomized controlled trial

## Acronym

NTT-CO (New Technology in the Treatment of Childhood Overweight and Obesity)

## Study objectives

Short Message Service Maintenance Treatment (SMSMT) reduces the dropout rates in a paediatric lifestyle program for overweight and obese children

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

The Ethics Committee of the Erasmus University of Rotterdam approved on the 3rd of July 2007 (ref: MEC-2007-129)

## Primary study design

Interventional

## Study design

Randomised controlled parallel group trial

## Study type(s)

Treatment

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

Childhood obesity

## Interventions

Cognitive behavioural group therapy (CBGT):

The Big Friends Club intervention. The BFC program is a family-based multidisciplinary cognitive behavioural group therapy (CBGT) intervention for children aged 7 to 12 years that is limited to groups of 10 children. The treatment team includes a psychologist, dietician, paediatrician, and physiotherapist. The therapy is aimed at reducing Body Mass Index ( $\text{kg/m}^2$ ) Standard Deviation Scores (BMI-SDS), preferably by maintaining weight during growth, adopting a healthy lifestyle and creating a positive self-image. The program provides for an intake session, 8 childrens sessions, and a minimum of 3 parents sessions during the first 3 months. At 6, 9, and 12 months after start of the program, childrens and parents sessions and individual appointments are organized.

After the primary cognitive behavioural treatment participants will be randomised into two groups, maintenance treatment (SMSMT) and no maintenance treatment (no SMSMT)

Short Message Service Maintenance Therapy (SMSMT):

Over a 42-week period, the children will input self-monitoring data on relevant parameters (weight change, exercise, and eating pattern) in a standardized format directly into their mobile

phone once a week. Once per week, they receive a feedback message on their progress via a semi-automated software program. Staff-members read incoming SMSs, check the feedback suggested by the program for plausibility, and send it to the participant. Feedback messages are formulated according to two rules: 1) signalling social support and 2) reinforcing positive changes and suggesting behaviour modification strategies in case of negative developments. The children must receive and send the messages by themselves. The parents are allowed to support them if necessary.

**Intervention Type**

Other

**Phase**

Not Applicable

**Primary outcome(s)**

Dropout rate

**Key secondary outcome(s)**

1. BMI-SDS, measured at baseline, 3, 6, 9 and 12 months
2. Problem behaviour, measured with Youth Outcome Questionnaire (YOQ) at baseline, 3 and 12 months
3. Family functioning, measured with the Dutch version of the Family Adaptability and Cohesion Evaluation Scale (FACES III) at baseline, 3 and 12 months
4. Health-related quality of life, measured with the Child Health Questionnaire-Parent Form (CHQ-PF-50) at baseline, 3, 6, 9 and 12 months
5. Perceived competence, measured with Dutch version of the Self-Perception Profile for Children (SPPC) at baseline, 3, 6 and 12 months
6. Eating behaviour, measured with the Dutch Eating Behaviour Questionnaire (DEBQ) at baseline, 3, 6, 9 and 12 months

**Completion date**

01/12/2010

## Eligibility

**Key inclusion criteria**

1. Overweight and obese children (Body Mass Index-Standard Deviation Score [BMI-SDS]  $\geq 1.1$ )
2. Aged 7 to 12 years
3. Youth Outcome Questionnaire [Y-OQ]  $< 46$
4. Command of Dutch language
5. No drug-treatable disease as the cause of excess weight
6. No diagnosis of eating disorder as defined by Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV)

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Child

**Lower age limit**

7 Years

**Upper age limit**

12 Years

**Sex**

All

**Key exclusion criteria**

1. Behavioural problems defined as a score exceeding 70 on the Child Behaviour Checklist (CBCL)
2. Drug-treatable disease as the cause of excess weight
3. Mental retardation
4. Insufficiently fluent in the Dutch language
5. Parents or a child with insufficiently motivation to actively participate in the program

**Date of first enrolment**

01/07/2007

**Date of final enrolment**

01/12/2010

**Locations****Countries of recruitment**

Netherlands

**Study participating centre**

Erasmus MC - Erasmus University Medical Center

Rotterdam

Netherlands

3000 CA

**Sponsor information****Organisation**

Erasmus Medical Centre / Medical Research Advice Commission (MRACE) (Netherlands)

**ROR**

<https://ror.org/018906e22>

# Funder(s)

## Funder type

Hospital/treatment centre

## Funder Name

Erasmus Medical Centre / Medical Research Advice Commission (MRACE) (Netherlands) - Grant No. 2006-26

## Funder Name

Innovation Fund Insurances (Innovatiefonds Verzekeringen) (Netherlands) - Grant No. 06-334.

## Funder Name

Vodafone (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 | 01/11/2012   |            | Yes            | No              |