

EFFECTIVENESS OF DIETETIC TREATMENT AFTER 9 MONTHS IN PRIMARY CARE IN THE NETHERLANDS: THE DIEET STUDY

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Rationale

There is a growing need for data on the effectiveness of dietary treatment in primary care, to demonstrate the added value of a dietetic treatment to general practitioners, ministries, and health insurance companies. Therefore, the effect of dietary treatment on predefined criteria was assessed.

Methods

The DIEET (DIETetics Effective and Towards a sustainable profession) study is a prospective observational study. Dietitians included clients with overweight, Diabetes Mellitus type 2 (DM2), hypertension, hypercholesterolemia and malnutrition. At the initial consultation, characteristics of the client were recorded. Effectiveness was predefined with criteria on weight change, BMI, and/or medication at 9 months. See table 1.

Changes in body weight and Body Mass Index (BMI) were tested with a paired samples t-test (alpha: 0.05).

Table 1. Predefined criteria per primary diagnosis

| Primary diagnosis | Criteria |
|---------------------------------------|---|
| Overweight | BMI < 25 kg/m ² and/or ≥ 5% weight loss |
| DM2 | BMI < 25 kg/m ² and/or ≥ 5% weight loss |
| Hypercholesterolemia/ Hypertention | BMI < 25 kg/m ² and/or ≥ 5% weight loss Reduce/prevent medication |
| Malnutrition | Weight gain/stabilisation |

Results

Baseline data were obtained for 594 clients and follow-up data were completed for 410 clients (loss to follow-up was 30%). For the characteristics of participants see table 2.

Table 2. Characteristics participants (n=410)

| Characteristics | |
|----------------------|-------------|
| Age | 55.8±14.7 |
| Female | n=241 (59%) |
| Migration background | n=63 (15%) |
| On own initiative | n=53 (13%) |
| Low SES* | n=135 (33%) |
| Middle SES | n=184 (45%) |
| High SES | n=91 (22%) |
| Overweight | n=196 (48%) |
| DM2 | n=144 (35%) |
| Hypercholesterolemia | n=38 (9%) |
| Malnutrition | n=25 (6%) |
| Hypertention | n=7 (2%) |

*SES based on highest level of education

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Effectiveness of the dietetic treatment based on predefined criteria was 47% for all clients, 43% in overweight and 49% in DM2. See figure 1. Effectiveness increased with increasing SES (low 39%, middle 48%, high 56%), but did not differ between gender, ethnicity, consultation on own initiative or with referral. At 9 months, clients achieved significant weight loss of -4.5 ± 6.3 kg (-4.6%) in overweight and -3.2 ± 5.4 kg (-3.4%) in DM2, BMI change was -1.5 ± 2.0 kg/m² and -1.1 ± 1.8 kg/m² respectively ($p < 0.001$). See figure 2.

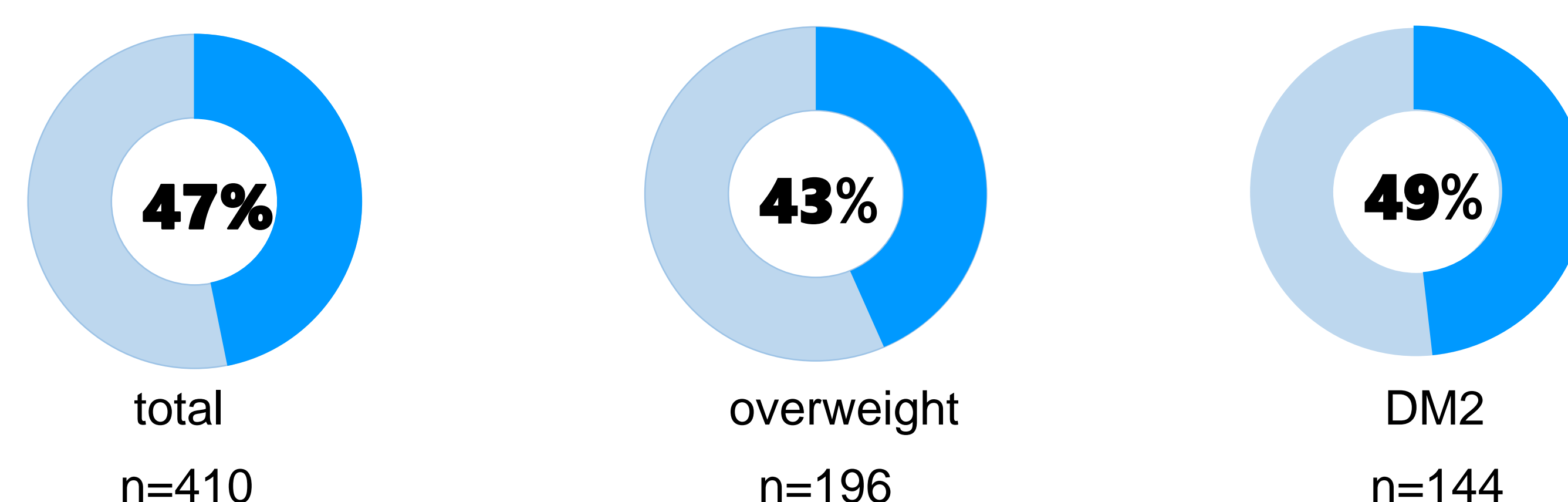


Figure 1. Effectiveness total group and in overweight and DM2

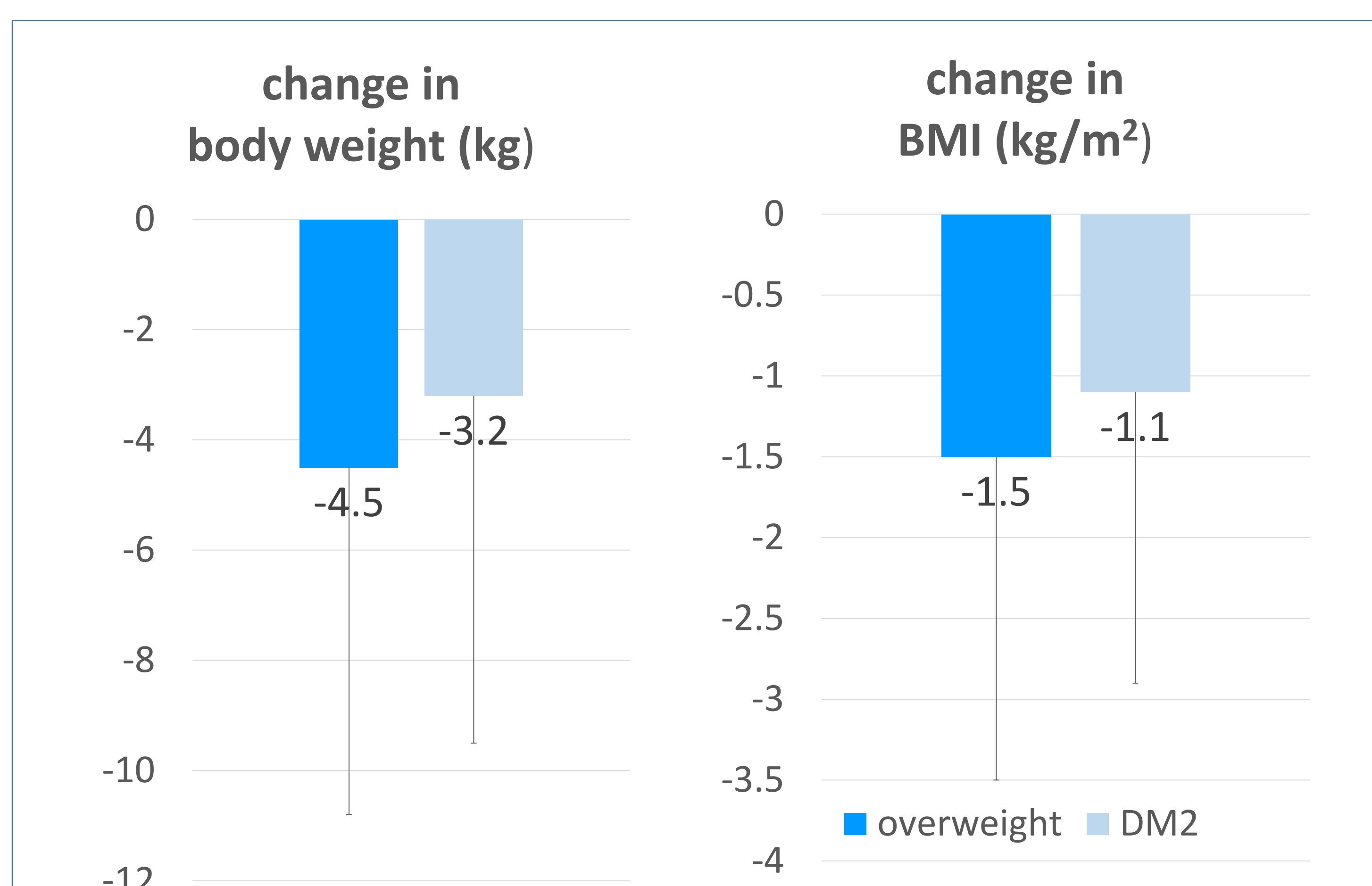


Figure 2. Change in body weight and BMI at 9 months (mean ± sd)

Conclusions

- 1 in 2 clients reached predefined dietetic treatment goals
- Clients with overweight and DM2 treated by dietitians in the primary care in the Netherlands achieved significant weight loss at 9 months
- The DIEET study will further explore which factors in the dietitians' acting in the initial consultation will influence the effectiveness