



Effect of truweight weight-loss program on weight reduction among clients in 10 days and one-month program

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Abstract

Introduction: Truweight helps overweight and obese clients to lose weight through structured diet plans, nutritional counseling, well researched super food kit and mobile app.

Objective: Assess the effect of Truweight weight loss program on overweight and obese clients in 10 days and one month.

Materials and Methods: A follow-up study among 120 overweight and obese clients enrolled for Truweight program. The study design is single arm trail.

Results: Out of the 120 clients, 86 were female clients around 34 were male clients. After detox, mean weight loss among female clients was found to be 2 kg during the 10 days detox and 3.4 kg after the one-month program. Among the male clients the mean weight loss after 10 days detox was 2.5 kg and in the one-month program the mean weight loss was 4.8 kg. On following one-month program, 89.9 percent male clients and 56 percent female clients lost weight > 3.1 kg.

Conclusion: The overall reduction in the obese levels and increase in the healthy clients between detox treatment and 30 days after following the programme were found to be statistically significant ($p < 0.05$).

Keywords: overweight, obese, weight loss, diet, truweight

Introduction

Among the non-communicable diseases, overweight and obesity are rapidly increasing in India. As per the reports of World Health Statistics ^[1], around the globe one in six adults is obese. Earlier studies from different parts of India reported evidence of the rising prevalence of obesity. As per the reports of the National Family Health Survey (NFHS-4), 2015-16 ^[2] in past 10 years, the number of obese people has doubled in India. Losing weight can reduce the health risks associated with being overweight or obese. According to a study ^[3] Losing 5 to 10 percent of the initial weight is associated with an improvement in the reduced incidence of type 2 diabetes mellitus, CVDS, hypertension and other life style disease. For losing weight, there are different such as diets, physical activities and surgeries. Truweight weight loss program focus on healthy eating and physical activity which helps people to lose weight. Truweight program provide superfoods which are natural, nutritionally dense, structured diet plan, mentoring by nutritionists and mobile app through which the nutritionist monitors the weight loss of the client. Hence, the broad objective of the study was to assess the effect of Truweight weight loss program on weight reduction among clients in 10 days and one month.

The Specific objectives of the study were to:

1. Ascertain the association between Weight loss, age and gender.
2. Find the association between Weight loss with Body Mass Index.
3. Assess of weight loss of Truweight clients in 10 days detox and 30 days.

2 Materials and methods

2.1 Locale of the study

The local of the study were Truweight wellness centers from Bangalore and Hyderabad.

2.2 Study Design

A follow-up study was done among the clients enrolled for Truweight program. The subjects were selected using purposive sampling based on inclusion and exclusion criteria. The study design is single arm trail

2.3. Selection of subjects

Clients enrolled for Truweight wellness clinics formed the subjects of the study. One hundred and twenty clients formed the subjects of the study. Informed consent was obtained from the subjects before starting the diet program. Based on the inclusion and exclusion criteria, subjects were selected.

2.4.a Inclusion Criteria

- a) Age between 20 - 64 years
- b) BMI > 25 kg/m²
- c) Willing to participate and follow the Truweight diet program, logging the foods and updating weight in the Truweight mobile app.

2.4.b Exclusion Criteria Were

- a) Age < 19 years and > 65 years) BMI < 24.9 kg/m²
- b) People with chronic diseases and not willing to use mobile app
- c) People who did not volunteer to participate in the study

2.5. Outline of Truweight weight loss program

Truweight is a food-based healthcare company, helps overweight and obese clients to lose weight through structured diet plans, nutritional counseling, well researched super food kit and mobile app. The program starts with 10 days detox program followed by monthly diet phases.

2.5.a 10 days detox program

Detoxification or 'detox' diets are short-term diet interventions designed to remove toxins from the body thereby promoting health and helps in weight loss [4]. Truweight detox program aims at removing toxins from the body - toxins from internal, reducing invisible inflammation and to improve healthy gut bacterial balance. In the 10 days detox program the initial six days will be having small and frequent meals and thus in a day the client will be taking 6 meals, drinking adequate water, fiber intake will be between 25 g to 35 g. The last 4 days from the diet gluten based products are avoided as well as lactose based products are avoided. Still, the clients will be consuming six meals in these four days also.

2.5.b One-month diet program

One-month diet program comprises of 15 days 2 different diet phases. The first phase is called super food phase during which introduction of several superfoods in the daily of clients take place. Superfoods to be introduced this phase: Seeds Cocktail, Hi protein Diet Atta, different soups, sweet and savory snacks, breakfast items like red poha, seeds and nuts muesli, 3-grain upma etc. Along with this Truweight Premium product such as Tru Juice which has ingredients for fat burning, Trufiber containing combinations of soluble and insoluble fibres, herbs containing teatox, (Trudrink) Breakfast/meal foods like red rice poha, High protein upma, seeds and nuts muesli, Quinoa dosa mix and soups, Truweight snacks rich in protein and fiber, Truweight soups etc.

2.6 Data collected

From the enrolled clients, data will be collected in terms of personal characters like age, occupation, physical activity pattern, medical history, medication details, weight history, Food preferences etc.

2.6.a) Anthropometric measurements

2.6. a. 1) Weight

Weight (in kilograms) was measured with a digital weighing scale that was kept on a firm horizontal flat surface. Subjects were asked to wear light clothing, and weight was recorded to the nearest 0.5 kg. The clients were asked to check and update the weight in the mobile app once in 3 days on early morning empty stomach

2.6. a. 2) Height

Height (in centimetres) was measured using a stadiometer (SECA Model 214, Seca Gmbh Co, Hamburg, Germany). The individual was asked to stand upright without shoes with his/her back against the vertical backboard, heels together and

eyes directed forward

2.6. a. 3) BMI

Body mass index (BMI) was calculated using the formula weight (kg)/height (m)². Body Mass Index of each client was calculated in this way. Based on BMI, the clients were categorized as Normal, Overweight and obese. The overweight is taken when as BMI falls between 25 and 29.9, Obese is classified when BMI is greater than or equal to 30.0, The BMI of normal weight corresponds between 18.5 and 24.9 [5].

b) Diet recall

One-day diet recall of the clients were taken by the concerned nutritionist and a diet score was given based on the same.

d) Logging of the food and weight update

The enrolled clients were asked to log the foods they have consumed daily in the Truweight mobile app and update the weight once in 3 days

2.7 Statistical Analysis of the Data

Data were analyzed using SPSS 20.0 for Windows. The weight and height of the clients were converted into respective BMI and analyzed for the study. Chi-square test was used to analyze the association between BMI and different parameters. $p > 0.05$ was set for significance

3. Results

For the present study, 120 clients enrolled for weight loss in Truweight centers were selected. The results are presented in detail.

3.1 Distribution of clients by age and gender Association between Weight loss, age and gender

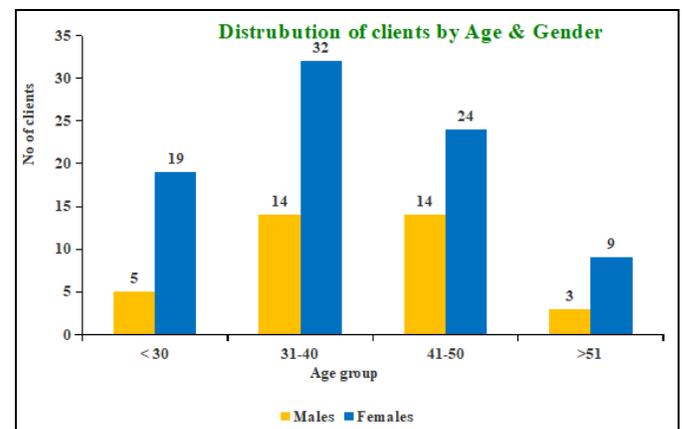


Fig 1: shows the distribution of clients by age and gender

From the Figure -1, it is observed that out of the 120 clients, 46 were in the age group of 31- 40 years, 28 were in the age group of 41-50 years, 22 were in the age group of fewer than 30 years and 12 percent were above the age group of 51 years. Out of 120 clinets, 84 were females and 36 clients were males.

3.2 Distribution of clients based on body mass index

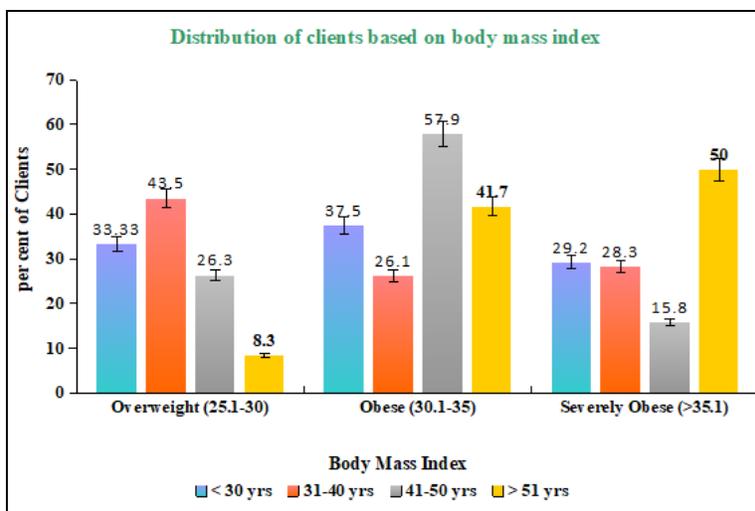


Fig 2: shows the distribution of clients based on body mass index

Figure 2 reveals the Age-group wise Body Mass Index (BMI) of the clients. As per the figure, 50 percent of the clients in the age-group of above 51 years were severely obese, 29 percent in the age-group < 30 years' and 28 percent in the age-group of 31-40 years. Only 16 per cent were severely obese in the age-group of 41-50 years.

3.3 Age-group wise BMI analysis initially after detox

Analysis of BMI after 10 days detox showed the decrease in weight. The BMI was compared with the age group. Table 1 shows the Age-group wise BMI analysis after detox

Table 1: Age-group wise BMI analysis Initial after detox and after one month

| Age group | Initial (0 Days) | | | Detox(10 Days) | | |
|-----------|-----------------------|----------------|----------------------|-----------------------|----------------|----------------------|
| | Over weight 25.1-30.0 | Obese 30.1-350 | Severely Obese >35.1 | Over weight 25.1-30.0 | Obese 30.1-350 | Severely Obese >35.1 |
| < 30 | 33.3 | 37.5 | 29.2 | 33.3 | 41.7 | 25 |
| 31-40 | 45.6 | 26.1 | 28.3 | 54.2 | 21.7 | 23.9 |
| 41-50 | 26.3 | 57.9 | 15.8 | 28.9 | 57.9 | 13.2 |
| >51 | 8.3 | 41.7 | 50 | 16.7 | 33.3 | 50 |

Table 1 shows the difference in BMI initially, after 10 days and after one month. After the 10 days, Truweight detox the age-group wise BMI analysis showed differences in the BMI from the initial detox days. Severely obese clients in the age-group of fewer than 30 years were reduced by 4 percent, in 31-40 years' age-group reduced by 4.4 percent and those in the age-group of 41-50 years were reduced by 2.6 percent. This difference between baseline and after detox BMI levels

found to be statistically significant ($p < 0.05$). However, there were no differences in severe obesity of the clients in the age-group of more than 51 years.

3.4 Age-group wise BMI analysis one-month program

Table -2 shows the Age-group wise BMI analysis one-month program

Table 2: Age-group wise BMI analysis one-month program

| Age-group wise BMI analysis one-month program | | | | | | | |
|---|--------------|-------|-------|------|----------------------|---------|---------|
| Body Mass Index | Age in years | | | | Total No. of clients | | p-value |
| | < 30 | 31-40 | 41-50 | > 51 | No. | Percent | |
| Normal 18.5 < 25 | 0 | 6.5 | 2.6 | 0.0 | 4 | 3.33 | 0.038 |
| Overweight 25.1-30.0 | 54.2 | 52.2 | 36.8 | 16.7 | 53 | 44.2 | |
| Obese 30.1-350 | 20.8 | 21.7 | 47.4 | 33.3 | 48 | 40 | |
| Severely Obese >35.1 | 25 | 19.6 | 13.2 | 38.0 | 26 | 21.7 | |

In the age-group of < 30 years, there was a significant reduction in the percent of obese clients (BMI -30.1 – 35.0 kg/m²) by almost half from the detox percentage (41.7% to 20.8% reduction in obese category). In the age-group of 41-50

years, there showed a 10 percent reduction among obese clients from their detox level BMI (57.9 percent to 47.4 percent). In the age-group of 31-40 years and 41 -50 years, the BMI of 6.5 percent and 2.6 percent clients respectively turned

to be a normal category (BMI < 25kg/m²). The overall reduction in the obese category and shift in the normal category between 10 days detox program and one-month program after joining the Truweight programme are found to be statistically significant (p < 0.05).

3.5 Percent distribution of clients based on gender and body mass index

Table -3 shows the Distribution of clients by gender and body mass index – Before Truweight program

Table 3: Distribution of clients by gender and body mass index – Initially, after detox and after one month

| Gender | Initial (0 Days) | | | Detox (10 Days) | | | One month (30 Days) | | |
|-------------|--------------------------|--------------------|-------------------------|--------------------------|---------------------|-------------------------|---------------------|--------------------------|--------------------|
| | Over weight 25.1-30.0 | Obese 30.1-35.0 | Severely Obese >35.1 | Over weight 25.1-30.0 | Obese 30.1- 35.0 | Severely Obese >35.1 | Normal 18.5 < 25 | Over weight 25.1-30.0 | Obese 30.1-35.0 |
| Females (%) | 34.5 | 36.9 | 28.6 | 36.9 | 36.9 | 26.2 | 3.6 | 41.7 | 31 |
| Males (%) | 30.6 | 47.2 | 22.22 | | 41.7 41.7 | 16.7 | 2.8 | 50 | 30.6 |

Above Table shows the gender wise analysis Body Mass Index of the selected Truweight clients. On enrolment, that is before the start of the program, 34.50 percent of the females and 30.6 percent of the males were belonging to the overweight category of 25.1 - 30.0 kg/m². Around 36.9 percent females and 47.2 percent males were in obese category (30.1 -35.0 kg/m²) and 28.6 percent females and 22.22 percent males were in the severely obese category BMI (> 35.1 kg/m²). This Table shows the gender wise analysis Body Mass Index of the selected Truweight clients after 10 days detox. After 10 days detox, there was a slight shift in the BMI of both males and females. The overweight category increased by 2.4 percent in females and 11.1 percent in male clients respectively. There was a reduction in the severely obese category. Severely Obese category reduced from 28.6 percent to 26.2 percent. Likewise, among male clients there was a 5.52 percent reduction. It can be concluded that after the one-month Truweight program, there was a significant health improvement in the BMI of both male and female clients.

Around 3.6 percent females and 2.8 percent males percent shifted to a normal BMI of < 25. The overweight category increased to 41.70 percent and 50.0 percent female and male clients respectively by following the Truweight Program. There was a significant reduction in the severely obese category to 23.80 percent females and 16.70 percent male clients. There was an overall reduction in 3.4 percent female clients in the severely obese category. Among the male clients, there was a significant health improvement in the BMI. The overweight category of the male clients from increased from 41.70 percent to 50.0 percent. The obese category (30.1 -35.0 kg/m²) male clients reduced from 41.70 percent to 30.60 percent.

3.6 Effect of Truweight weight loss program on weight reduction among clients in 10 days and one-month program

Figure -3 Weight loss of clients with 10 days detox and One-month Truweight program among males and females

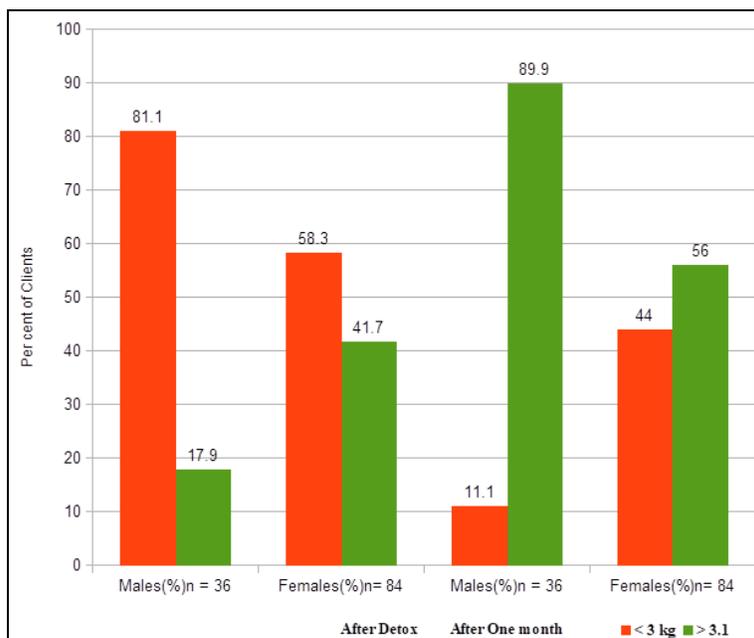


Fig 3

From Figure 3, it is observed that nearly 82 percent female clients lost weight < 3 kg in 10 days detox and 17.9 percent

lost weight > 3.1 kg. In the case of male clients, 58.3 percent lost < 3 kg and 41.7 percent lost weight > 3.1 kg in 10 days

detox. In the one-month Truweight program, around 89.9 percent male clients and 56 percent female clients lost weight > 3.1 kg. Less than 3 kg weight loss were observed among 44 female clients and 11.1 percent male clients respectively. The gender differences in weight losses after detox found to be statistically significant ($p < 0.005$) while gender difference in weight losses after 30 days found to be statistically highly

significant ($p < 0.001$).

3.7 Association between gender and Weight loss in 10 days detox and one month program

Table 4 shows the association between gender and Weight loss in 10 days detox and one month program

Table 4: Association between gender and weight loss in 10 days detox and one month program

| Gender | Total no. of clients | Weight loss in detox (Mean + S.D) | Weight loss One month (Mean + S.D) |
|-----------|----------------------|-----------------------------------|------------------------------------|
| Females | 84 | 2.0 ± 1.1 | 3.4 ± 1.4 |
| Males | 36 | 2.5 ± 1.1 | 4.8 ± 1.9 |
| Total | 120 | 2.1 ± 1.1 | 3.8 ± 1.7 |
| p - value | | 0.024 | < 0.0001 |

From the above Table, it can be inferred that mean weight loss among female clients were found to be 2 kg during the 10 days detox and 3.4 kg after the one-month program. Among the male clients the mean weight loss after 10 days detox was 2.5 kg and in the one-month program the mean weight loss was 4.8 kg.

Analysis of the data using t-tests showed that the gender differences in weight losses after detox found to be statistically significant while gender difference in weight losses after 30 days found to be statistically highly significant ($p < 0.001$).

Discussion

The present study was carried out to assess the effect of Truweight weight loss program on weight reduction among clients in 10 days detox and one month. The main findings pointed that after the one-month Truweight program, there was a significant improvement in the BMI of both male and female clients. Previous study [6] conducted in North India reported that the prevalence of overweight/obesity was highest in the age group of 50-60 years followed by 40-49 years which is in line with the present study. As earlier studies [7] in this study also weight lost by men was higher than the weight lost by female clients.

Conclusion

Truweight helps overweight and obese clients to lose weight through structured diet plans, nutritional counseling, well researched super food kit and mobile app. On the analysis of weight loss of selected who followed 10 days detox and one-month program found the following results. On following one-month program, 89.9 percent male clients and 56 percent female clients lost weight > 3.1 kg. In the age-group of < 30 years, there was a significant reduction in the percent of obese clients (BMI -30.1 – 35.0 kg/m²) by almost half from the detox percentage (41.7 % to 20.8 % reduction in obese category). The overall reduction in the obese levels and increase in the healthy clients between detox treatment and 30 days after the entry into the program are found to be statistically significant ($p < 0.05$). The gender differences in weight losses after detox found to be statistically significant ($p < 0.001$) while gender difference in weight losses after 30 days found to be statistically highly significant ($p < 0.001$).

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Conflict of interest

Nil

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