#### ISSN: 2455-2631

# A Comparative Study on The Effectiveness of Individualised Homoeopathic Medicine and Lifestyle Modifications in The Management of Overweight – A Prospective Observational Study

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### Abstract-

Background- Overweight refers to body weight above a normal range for a given height. The prevalence of overweight is increasing rapidly as a result of current lifestyle with less physical activity and changing health habits. If it is not managed on time, it leads to metabolic disorders. Thus, timely management is required.

Objectives-The aim was to compare the effectiveness of individualised Homoeopathic medicine and lifestyle modifications in management of Overweight along with the understanding which potency is giving better outcome and which medicine is more frequently used in this study.

Methods- Thirty subjects were selected as per inclusion criteria and divided into group 1 and group 2. Subjects treated with individualised homoeopathic medicine and treated with only lifestyle modifications under naturopathy doctor were included in group 1 and group 2 respectively (15 in each). The change in BMI was recorded in the interval of 1 month for a period of 5 months.

Results- Statistical analysis was done to know the effectiveness of each treatment method indicates the highly significant changes after the treatment. But there is no significant difference between two modes of treatment i.e., both the methods of treatment are proven equally effective. Hence the null and alternative hypothesis are rejected.

It is observed that medicines frequently used in this study are *Natrum muriaticum* (33%), *Phosphorus* (30%), *Sulphur* (20%), *Lycopodium* (20%), *calcarea carbonica* (7%), *Ignatia* (7%). The potency giving better results in this study 1M (53%). Conclusion- It is proved that the both methods are equally effective in the management of overweight.

Index words- Individualised Homoeopathic Medicine, Overweight, life Style Modifications, BM.

# 1.INTRODUCTION

Overweight refers to body weight above a normal range for a given height. The prevalence of overweight is increasing rapidly due to current lifestyle with less physical activity and changing health habits. For adults, WHO defines overweight as Body mass index greater than or equal to 25. Body mass index measures weight in relation to height<sup>1</sup>. HOMOEOPATHIC APPROACH<sup>3,6</sup>:

Overweight is an expression of man's internal sickness and should be treated holistically with suitable homoeopathic medicine.

- Calcarea carbonicum Patient is fat, fair and flabby. Children who grow fat, are large bellied with large head and pale skin. Great sensitiveness to cold.
- Capsicum annum Persons of lax fiber, weak and diminished vital heat. Fat, indolent persons, opposed to physical exertion. Get homesick easily.
- Ferrum metallicum Adapted to young weakly persons, anaemic with pseudo plethora who flush easily, cold extremities. Voracious appetite. Muscles flabby and relaxed.
- Graphites Patients who are stout, fair complexion with tendency to skin affections and constipation, fat. Takes cold easily.
- Kali bichromicum Indicated for fleshy, fat, light complexioned persons subjected to catarrh.
- *Kali carbonicum* Persons who are fleshy, aged people with dropsical and paretic tendencies. Sensitive to every atmospheric change, intolerance of cold weather. Lax fiber, inclined to obesity.
- Phytolacca decandra Clinically found effective in reduction of weight. Aching, soreness, restlessness, prostration are general guiding symptoms.

## LIFESTYLE MODIFICATIONS 4,5:

DIET - Calorie restriction is essential to clinically induce weight loss. The obesity guidelines recommend consumption of a diet designed to achieve a deficit of 500-750kcal/day, with a resulting mean loss of 0.5kg-0.75kg per week. Accordingly, women often are prescribed 1200-1500 kcal/day and men 1500- 1800kcal/day. Another option is to prescribe 1200-1500kcal/day for individuals who weigh <113kg and 1500-1800kcal/day for these >113kg. The U.S. Dietary Guidelines (2015) recommend that approximately 15-20% of daily calories are derived from protein, 20-35% from fat (with no more than 10% saturated fat) and the remaining from carbohydrates, particularly fresh fruits, vegetables and grains. Reducing portion sizes and excess sugar and fat, are convenient ways to achieve desired calorie deficits.

PHYSICAL ACTIVITY -Lifestyle modification programs usually prescribe 150-180 minutes per week of moderately vigorous aerobic activity, such as brisk walking or cycling. Regular aerobic activity is associated with many benefits including improvement of physical (lipids and BP) and mental health (anxiety and depression). It is associated with improvement of physical condition, which reduces the risk of mortality associated with obesity.

The greater the BMI, the greater is the risk of health issues. If overweight is not managed in time, it leads to metabolic disorders<sup>1</sup>. Thus, timely management with appropriate homoeopathic medicines and lifestyle modifications is essential.

#### 2.OBJECTIVES

- To compare the effectiveness of individualised Homoeopathic medicine and lifestyle modifications in management of Overweight.
- To understand which potency is giving better outcome.
- To understand which medicine is more frequently used in this study.

#### 3.METHODOLOGY

### SOURCE OF DATA

The study was conducted based on the resources from the following:

- Alva's Homoeopathic Medical College Hospital, Punarjanma, Mijar.
- Alva's Homoeopathic Medical College OPD, Moodbidri.
- Alva's Ladies Hostel, Vidyagiri and Mijar.
- First Line Treatment Centre, Mijar.

# METHOD OF COLLECTION OF DATA

Cases were collected which were prescribed with individualised homoeopathic medicine and only treated with lifestyle modifications and observed for the changes in BMI in the future follow ups.

#### METHOD OF STUDY

#### **Selection of samples:**

Type of study - Prospective Observational study.

Sample size - 30.

Sampling technique - Purposive sampling.

#### **Inclusion criteria:**

- 18 to 50 years of age.
- All sexes.
- All socioeconomic status.
- Subjects having BMI more than 25 were included.
- Cases of overweight treated with individualised homoeopathic medicine as first prescription.
- Cases of overweight treated only with lifestyle modifications.

### Study design/ Brief of procedure:

- 30 subjects were selected as per inclusion criteria.
- Selected subjects were divided into group 1 and group 2. Each group comprised of 15.
- Subjects treated with individualised homoeopathic medicine as first prescription were included in Group 1.
- Subjects treated with only lifestyle modifications under a Naturopathy doctor were included in Group 2.
- Observations were recorded after each follow up in the interval of 1 month.
- The study was conducted for a period of 5 months. At the end of study, observations are represented using appropriate tables.
- The conclusion of the study was drawn using appropriate statistical tools.

# **4.RESEARCH QUESTION**

Whether individualised Homoeopathic medicine is more effective than lifestyle modifications in management of overweight?

## **NULL HYPOTHESIS**

Individualised Homoeopathic medicine will not be more effective than lifestyle modifications in management of overweight.

## **ALTERNATIVE HYPOTHESIS**

Individualised Homoeopathic medicine will be more effective than lifestyle modifications in management of overweight.

# 5. STATSTICAL ANALYSIS

Paired t and unpaired t test were done to compare the effectiveness.

## 6. OBSERVATIONS AND RESULTS

# COMPARISON OF BMI VALUE BEFORE AND AFTER TREATMENT IN GROUP 1

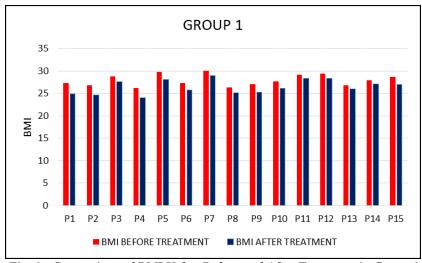


Fig. 1 - Comparison of BMI Value Before and After Treatment in Group 1

# COMPARISON OF BMI VALUE BEFORE AND AFTER TREATMENT IN GROUP 2

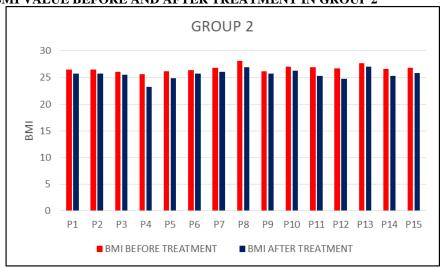


Fig. 2 - Comparison of BMI Value Before and After Treatment in Group 2

# THE MEDICINES FREQUENTLY USED IN THIS STUDY

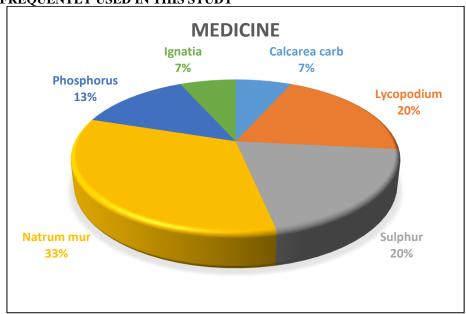


Fig. 3 - Distribution of the Medicines Frequently Used in this Study

### THE POTENCY GIVING BETTER RESULTS IN THIS STUDY

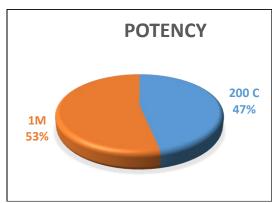


Fig. 4 - Distribution of the Potency Giving Better Outcome in this study

#### 7.DISCUSSION

The purpose of the study was to compare the effectiveness of individualised Homoeopathic medicine and lifestyle modifications in managing overweight. Thirty subjects were selected as per inclusion criteria and divided into group 1 and group 2. Each group comprised of 15 subjects. Subjects treated with individualised Homoeopathic medicine were included in group 1. Subjects treated with only lifestyle modifications under naturopathy doctor were included in group 2. Observations were recorded after each follow-up in the interval of one month. The study was conducted for a period of 5 months.

It is observed that medicines frequently used in this study are *Natrum muriaticum* (33%), *Phosphorus* (30%), *Sulphur* (20%), *Lycopodium* (20%), *Calcarea carbonica* (7%), *Ignatia* (7%). The potency giving better results in this study 1M(53%).

It is observed that the p value of before and after treatment of both Group1 and Group2 in paired t test is less than 0. 0001.It indicates that there are highly significant changes after the treatment. Unpaired t test was done to compare the effectiveness of group 1 and group 2, the p value is more than 0.05. It indicates that there is no statistical significance between the two modes of treatment, i.e., both the methods are equally effective.

In this study, both the null and alternative hypothesis are rejected as the p value is more than 0.05 in unpaired t test.

## 8.SUMMARY AND CONCLUSION

The study was done to compare the effectiveness of individualised homoeopathic medicine and lifestyle modifications in managing overweight. Thirty subjects were selected as per inclusion criteria and divided into group 1 and group 2. Each group comprised of 15 subjects. Subjects treated with individualised homoeopathic medicine were included in group 1. Subjects treated with only lifestyle modifications under naturopathy doctor were included in group 2. Observations were recorded after each follow-up in the interval of one month. The study was conducted for a period of 5 months.

Statistical analysis was done to know the effectiveness of treatment. It is observed that the p value of before and after treatment of both Group1 and Group2 in paired t test is less than 0.0001. It indicates that there is highly significant change after the treatment. Unpaired t test was done to compare the effectiveness of individualised homoeopathic medicine and lifestyle modifications in management of overweight, p value obtained was more than 0.05. It states that there is no significanct difference between two modes of treatment i.e., both the methods of treatment are proven equally effective. Hence the null and alternative hypothesis are rejected.

#### FINANCIAL SUPPORT

Nil

#### CONFLICT OF INTEREST

None declared

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