# EFFECTIVENESS OF 45 MINUTES WALK WITH 10 MINUTES ANKLE TOE MOVEMENT TO REDUCED BMI IN OBESE TYPE 1 AMONG FEMALE - AN EXPERIMENTAL STUDY

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*Abstract-*
**BACKGROUND**: **Obesity is one of the medical conditions that body fat accumulation. World Health Organization described the obesity classification by Body Mass Index. Our South Indian life styles and Socio-Economic-Cultural influences on our health status may lead negative effects nowadays. Obesity is one of the risk factors of DM, SHT and Atherosclerosis. The People should aware on their health status by doing some exercise programs.**
**AIM & OBJECTIVE: To find out the effectiveness of 45 minutes' walk with 10 minutes ankle toe movement to reduced BMI in obese type 1 among female. Methodology: 30 subjects of age group 25- 35 years were selected, who fulfilled the inclusion Criteria. Out of the 30 females 15 subjects who were obese type 1 and also those who scored between 25 – 29.9 in BMI.15 subjects who selected were treated 45 minutes' walk with 10 minutes ankle toe movement for a period of 8 weeks. The pre-test and post-test measurement was taken using BMI calculate.**
**RESULT: The pre-test and post-test mean values of BMI scored was analyzed using the paired 't' test. For 14 degrees of freedom and 5% level of significance, the table's' value is 1.729 and calculated 't' value 23.43. Since the calculated' value was greater than table's' value null hypothesis is rejected.**
**CONCLUSION: This study it can be concluded that 45 minutes' walk with 10 minutes ankle toe movement for a period of 8 weeks to reduced BMI in obese type 1 among female.**

*Keywords:* **BMI, Obese Type 1, Walk, Ankle Toe Movement, Female**

## INTRODUCTION:

Obesity is one of the medical conditions that body fat accumulation. World Health Organization described the obesity classification by Body Mass Index are 25-29.9 is type 1 or overweight. 30-34.9 is type 2 or obese class I. 35-39.9 is type 3 or obese class II. 40 and above is type 4 or Obese class III. The Body Mass Index (BMI) is calculated by Weight (Kg) divided by Height (m)$^2$ . Our South Indian life styles and Socio-Economic-Cultural influences on our health status may lead negative effects nowadays. We are taking lot of carbohydrate than other nutrient values that crossed recommended daily allowance. Obesity is one of the risk factors of Diabatic Melitus, Systemic Hyper Tension and Atherosclerosis. The People should aware on their health status by doing some exercise programs and diets. To find out the effectiveness of 45 minutes' walk with 10 minutes ankle toe movement to reduced BMI in obese type 1 among female for a period of 8 weeks.

## METHODOLOGY:

A total number of fifteen subjects were selected in outpatient department of Swamy Vivekanandha Physiotherapy College, department of physiotherapy by purposive sampling method by who fulfilled the inclusion criteria. The study was pretest and post-test for a single group experimental study in nature. The treatment was conducted for a period of 8 weeks. The subject was selected by using purposive sampling method. pretest taken using BMI calculation score assigned to 45 minutes' walk with 10 minutes ankle toe movement. The Inclusion Criteria are patients Age between 25 – 35 years Only female patients have selected in this study, the subjects from Vivekanandha Educational Institutions Girls Hostels for same diets, 25 – 29.9 score in BMI. The Exclusion Criteria are the score above 30 in BMI, Uncooperative patients and other pathological or associated problems. Before the patient treatment all the subjects were explained about the study and the procedure to be applied. They were asked to inform if they any discomfort during the course of study. Written consent was obtained from the subjects**.**

**PROCEDURE:**

   The person is made to stand on weight scale for measuring her weight before starting the study. And take height measurement by stadiometer on same time. And calculated the BMI score by using of digital calculator. The BMI score should be 25 – 29.9. The exercise program for all days of 8 weeks. Same measurement taken after eight-week exercise program for BMI score calculate.

**45 Minutes' Walk:**

   All subjects should check vital signs before starting program. Only stable persons should involve in to our study. The duration of walks is monitoring by stop watch. And all subject must involve the program by evening for eight weeks.

   After completed the 45 minutes' walk all subjects should take rest for 5 Minutes.

**10 Minutes Ankle toe Movement:**

   All subjects are made to lying on bed and check vital signs before exercise. All should be normal.
Patient Position: Relaxed Prone Lying
Duration: 10 Minutes

**DATA ANALYSIS**
BMI Score:

| Mean values (Kg/m$^2$) | | Calculated 't' value | Table 't' value | Level of Significance |
|---|---|---|---|---|
| Pre test | Post test | | | |
| 27.3 | 25.3 | 23.43 | 1.729 (one-tail) | P < 0.05 Significant |

The pretest and posttest mean values of BMI score was analyzed using the paired 't' test. For 14 degrees of freedom and 5% level of significance, the table 't' value is 1.729 and calculated 't' value 23.43. Since the calculated 't' value was greater than table 't' value null hypothesis is rejected.

**Result:**

This study was conducted on 15 subjects. To find out obese type 1 was used BMI score. BMI score used was short version. The pretest and posttest mean values of BMI score was analyzed using the paired 't' test. Since the calculated 't' value was greater than table t' value null hypothesis is rejected. The overall result of this study is 45 minutes' walk with 10 minutes ankle toe movement for a period of 8 weeks to reduce BMI score in obese type 1 among female.

**Discussion:**

   All subjects are taking same diets and calories every day. They are staying Vivekanandha Educational Institutions Girls Hostel. The efficacy of 45 minutes' walk with 10 minutes ankle to movement to utilized calories for muscle action from body. Approximately 450 to 500 Kcal burned every day the result of protocol.

   Outcome measures included the BMI score calculated by weight & height which was measured prior to treatment (pretest) and at the end of 8 weeks of treatment (posttest). In this study aim was to find out the effectiveness of 45 minutes' walk with 10 minutes ankle toe movement to reduced BMI in obese type 1 among female. The overall effectiveness on BMI score was analyzed by paired 't' test after 8 weeks treatment which shows p < 0.05 which is significant.

From this study it can be concluded after the exercises program the BMI score is reduced followed by 8 weeks among type 1 obese female.

**Conclusion:**

   The aim of study is found out the effectiveness of 45 minutes' walk with 10 minutes ankle toe movement to reduced BMI in obese type 1 among female. 30 obese type 1 females were selected and assessed. Those who had BMI score between 25 – 29.9. Out of 30 members 15 subjects were selected. They received the exercise program.

   The BMI score was measured before and after treatment session (8 weeks) by using Weight & Hight. Pretest and posttest values of the study was collected and assessed for significant difference and their results were analyzed by using paired 't' test.

This study concluded that 45 minutes' walk with 10 minutes ankle toe movement to reduced BMI in obese type 1 among female**.**

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