

Lifestyle and Behavioral Changes: A Pathway to Weight Reduction and Pain Management in Overweight and Obese Women

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INTRODUCTION AND AIM

Overweight and obesity are associated directly and indirectly with many physical ailments and chronic diseases. Research has shown that women are affected more compared to men (1). The present study aimed to study the effect of lifestyle and behavior modification on the anthropometric measurements, physical ailments and chronic pain of overweight and obese women.

METHOD

This retrospective record review study was conducted using the data of overweight and obese women who participated in a 3-month nutritionist-led online weight loss program in the year 2023 (ERBA Wonder Women) in India. The program has a 3-month Holistic Lifestyle Protocol which comprised of 12 modules.

THE HIGHLIGHTS OF THE PROGRAM

- Early Rising before 5am
- Daily Sunlight Exposure for minimum 20 mins
- Chewing minimum 32 chews/bite before swallowing for all meals
- Calorie restriction via Continuous Energy Restriction and Time Restricted Eating (by 20 - 30% of baseline intake).
- Gradual reduction in grain intake by 60% from baseline
- 5 serving of fruits and vegetables per day
- 1.2 - 1.5 g protein/kg body weight
- Adequate hydration
- Altered Fasting once a week
- One hour online Yogasanas (3x a week)
- Pranayama and deep abdominal breathing
- Low intensity weight training (20minutes, 3x/week)
- Stress management

Duration of the program
3 months

Statistical Analysis:

- Student's t test
- Friedman test
- Repeated measures of ANOVA (at $p < 0.01$ level of significance)

RESULTS & DISCUSSION

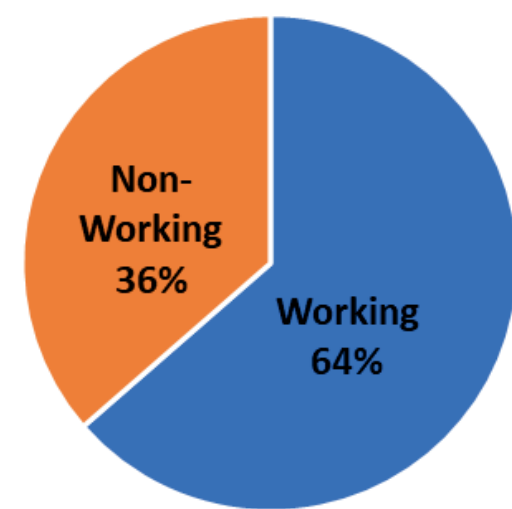
Forty five women had participated in the weight loss program and complete data of **22 women** was available for analysis.

22 Data available for analysis

Occupation of the Participants (in %)

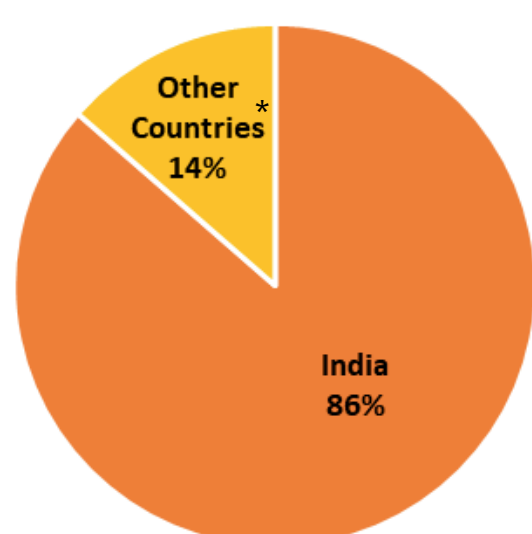
38.3 ± 4.08 Mean age of the participants (years)

157.4 ± 3.63 Mean height of the participants (cm)

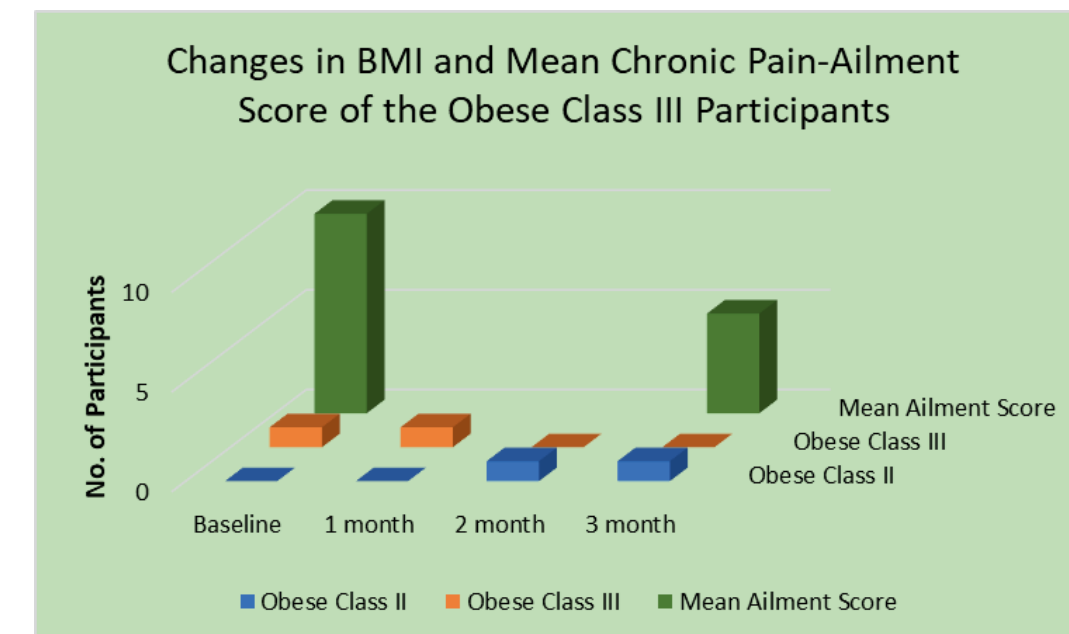
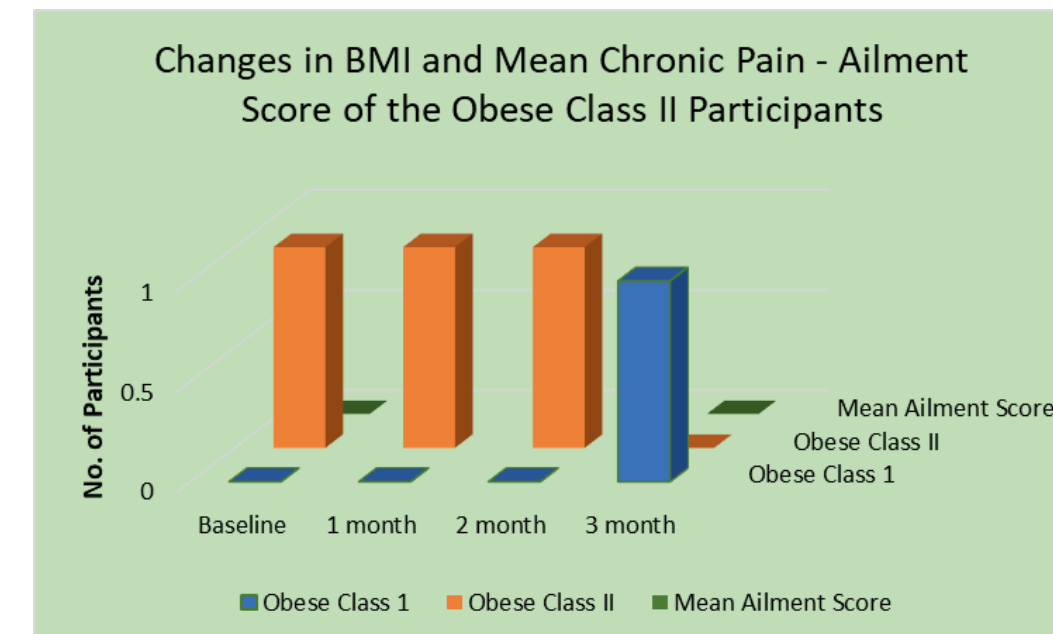
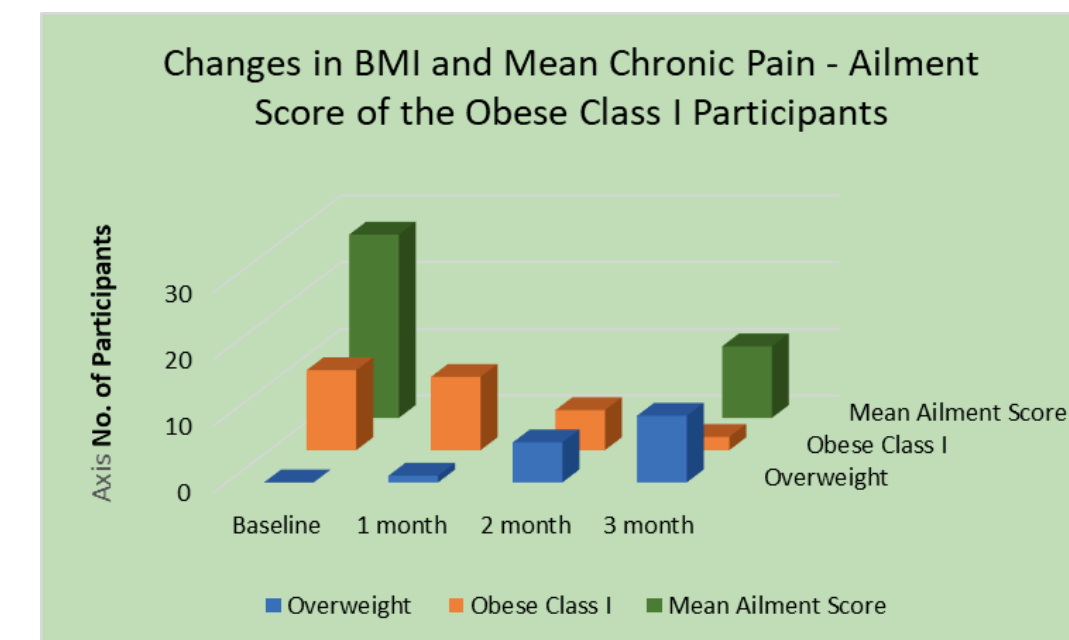
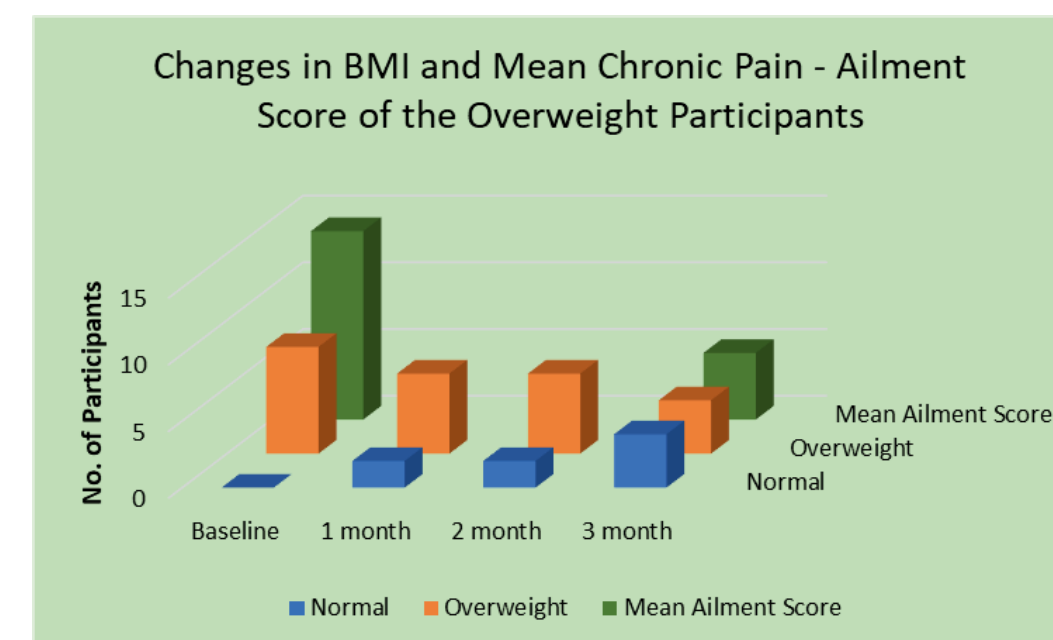
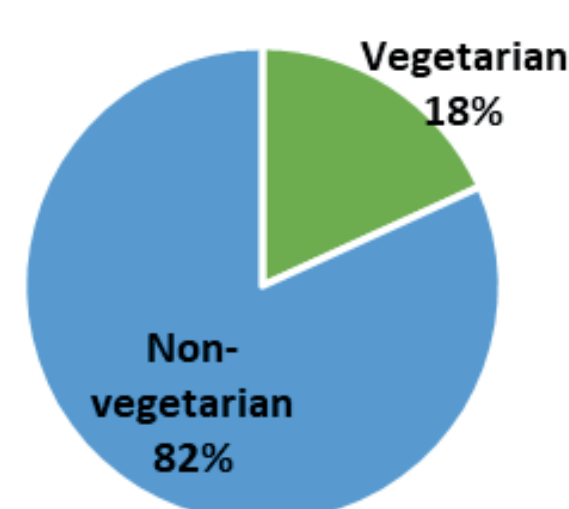


Country of Residence of the Participants (in %)

Dietary Preference of the Participants (in %)

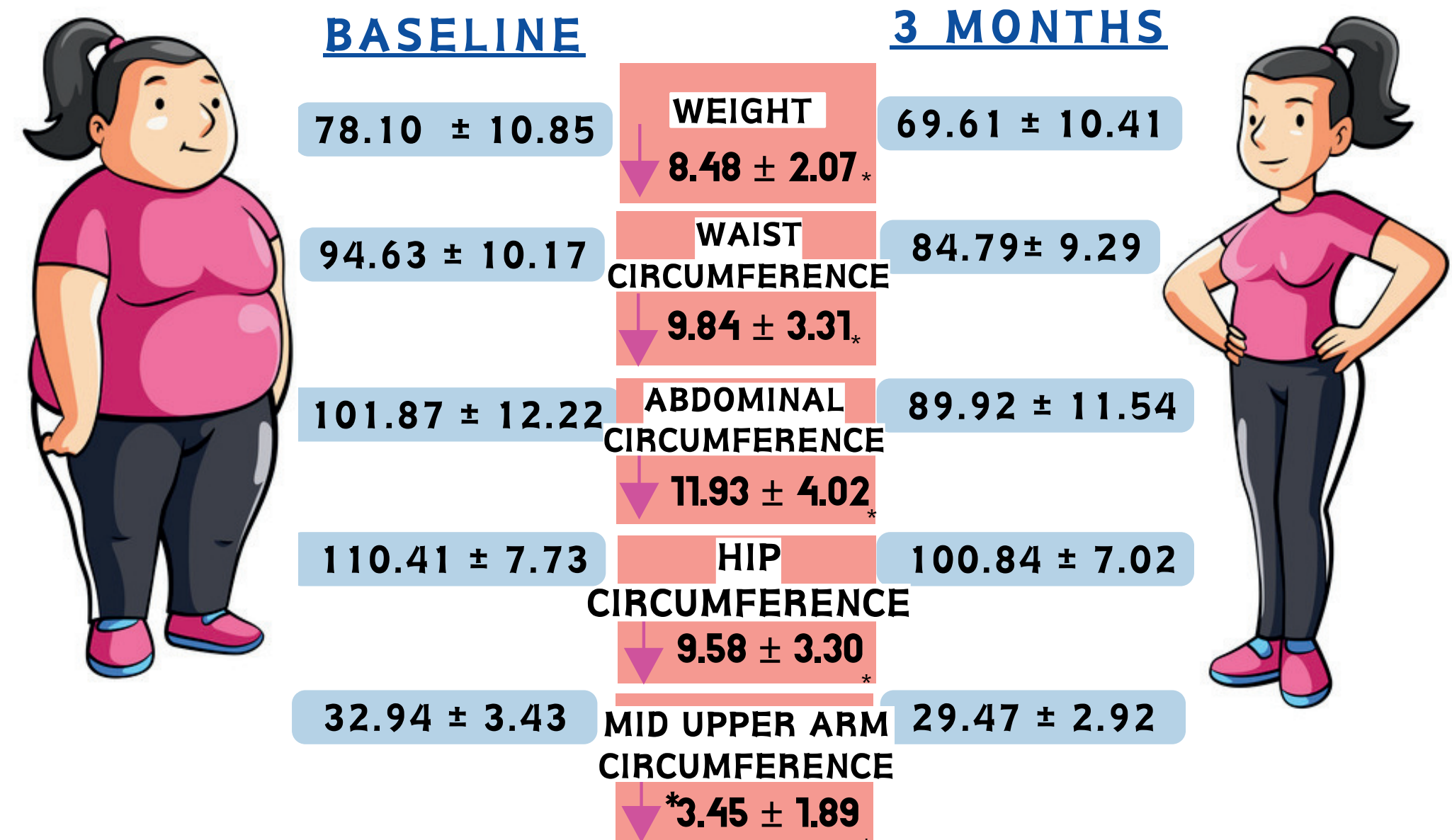


*Indians residing in other countries



*as per WHO Classification of Body Mass Index, 1998 (2)

CHANGES IN WEIGHT (KG) AND GIRTH MEASUREMENTS (CM) IN 3 MONTHS*



*All changes significant at $p < 0.01$

CONCLUSION

The study shows that lifestyle and behavior modification-based weight loss program significantly reduced the weight, BMI, girth measurements and the physical ailments and chronic pain of overweight and obese women. The protocol was applicable for both vegetarians and non-vegetarians.

FUTURE WORK

The program can be extended for longer duration of 6 months to 1 year, with more participants along with follow-up. The weight reducing, hypoglycemic and hypolipidemic effect of the program on overweight and obese men can also be studied.

REFERENCES

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2. NHLBI Obesity Education Initiative Expert Panel on the Identification, Evaluation, and Treatment of Obesity in Adults (US). Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. Bethesda (MD): National Heart, Lung, and Blood Institute; 1998 Sep. <https://www.ncbi.nlm.nih.gov/books/NBK2003/>

