

THE EFFECT OF BRISK WALKING EXERCISE ON WEIGHT LOSS IN OVERWEIGHT ADULTS

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ABSTRACT

Being overweight is a health issue with a continuously rising prevalence that contributes to various non-communicable diseases, such as type 2 diabetes mellitus, hypertension, and cardiovascular disease. Moderate-intensity aerobic physical activity, such as brisk walking, serves as an accessible, cost-effective, and safe strategy for weight loss. This study aimed to determine the effect of brisk walking exercise on weight loss in overweight adults. An experimental method with a one-group pretest-posttest design was employed. The study sample consisted of 30 overweight adults aged 20–40 years, selected using a purposive sampling technique. The brisk walking program was conducted over eight weeks, with a frequency of four sessions per week and a duration of 30–45 minutes per session. Body weight was measured before and after the program using a digital scale. Data were analyzed using a paired-sample t-test at a significance level of 0.05. The mean body weight was 78.56 ± 7.42 kg before the intervention and 75.89 ± 7.13 kg after the intervention. The paired-sample t-test results showed a p-value of 0.000 (<0.05), indicating a significant effect of brisk walking exercise on weight loss. Regular brisk walking exercise over eight weeks was effective in reducing body weight among overweight adults. Brisk walking can be recommended as a simple and easily implemented physical activity alternative for weight management programs.

Keywords: brisk walking, body weight, overweight, physical activity, aerobic exercise

INTRODUCTION

Overweight and obesity have become global health issues with a prevalence that continues to rise annually. The World Health Organization reports that more than 1 billion adults worldwide are obese, while the number of overweight individuals is far greater. This condition is closely linked to an increased risk of chronic diseases such as type 2 diabetes mellitus, hypertension, coronary heart disease, and other metabolic disorders. Modern lifestyle changes characterized by low physical activity and high consumption of calorie-dense foods are primary factors driving the rising prevalence of being overweight. Therefore, effective, safe, and practical strategies are needed to help manage body weight. Being overweight is a condition in which a person's body weight exceeds what is considered healthy for their height. The most commonly used measurement is BMI, with the overweight category for adults falling within the range of 25.0–29.9 kg/m². George A. Bray defines being overweight. ...defined as weight gain exceeding normal limits, largely caused by the accumulation of adipose tissue resulting from a chronic energy surplus.

Physical activity is a crucial component of weight management. Brisk walking is a form of moderate-intensity aerobic exercise capable of increasing energy expenditure, improving fat metabolism, and enhancing cardiorespiratory fitness. Compared to other forms of exercise, brisk walking carries a lower risk of injury and is suitable for various age groups. Several studies indicate that regular brisk walking can boost calorie burning and help create the negative energy balance required for weight loss. However, the effectiveness of brisk walking

programs among overweight populations requires further investigation across diverse contexts and subject characteristics.

Based on the foregoing, this study aims to analyze the effect of brisk walking exercise on weight loss in overweight adults.

RESEARCH METHODS

This study employs an experimental method using a One-Group Pretest-Posttest design. The One-Group Pretest-Posttest design is a simple experimental research design used to determine the effect of a treatment on a group by comparing conditions before and after the treatment is administered.

Design

Structure $O_1 \rightarrow X \rightarrow O_2$

Legend:

- O_1 = Initial body weight measurement
- X = Brisk walking exercise program
- O_2 = Final body weight measurement

POPULATION AND SAMPLE

The study population consisted of lecturers and students from FKIP Uhamka who were overweight and aged 20–40 years.

Inclusion criteria:

1. BMI of 25–29.9 kg/m².
2. Not currently following a specific diet program.
3. No musculoskeletal disorders.
4. Willing to participate in the exercise program throughout the study.

The sample size was 30 individuals, selected using a purposive sampling technique.

BRISK WALKING EXERCISE PROGRAM

This program was designed based on the principles of progression, overload, and specificity, aiming to gradually increase energy expenditure to support weight loss. The program is suitable for adults who are overweight or mildly obese and have no medical contraindications for physical activity.

Program Characteristics

- a. Program Duration: 8 weeks
- b. Frequency: 4 times per week
- c. Intensity: 60–75% of maximum heart rate (MHR)
- d. Exercise Duration: 30–60 minutes per session
- e. Type of Exercise: Brisk walking
- f. Location: Athletic track, park, sidewalk, or treadmill

Struktur sesi latihan		
Pemanasan (10 menit)	Latihan inti (90 menit)	Pendinginan (10 Menit)
Jalan santai 5 menit Peregangan dinamis: <i>Arm swing, Leg swing, Hip rotation, High knee march</i>	Jalan cepat sesuai target program mingguan	Jalan santai Peregangan statis otot: <i>Hamstring, Quadriceps, Betis, Pinggang</i>

RESEARCH INSTRUMENTS AND DATA ANALYSIS TECHNIQUES

Instruments used:

1. Digital scale (0.1 kg accuracy).
2. Respondent identity form.
3. Exercise monitoring sheet.

Data analyzed using:

1. Descriptive statistics.
2. Shapiro-Wilk normality test.
3. Paired sample t-test.

Analysis was conducted using SPSS version 26 with a significance level of $\alpha = 0.05$.

RESEARCH RESULTS

DESCRIPTIVE STATISTICS

Table 1. Description of Respondent Body Weight

Variable	Mean	SD
Pretest	78.56	7.42
Posttest	75.89	7.13

Average body weight decreased by 2.67 kg after participating in an eight-week brisk walking exercise program.

NORMALITY TEST

Table 2. Normality Test Results

Variable	Sig.
Pretest	0.121
Posttest	0.086

Significance values >0.05 indicate the data are normally distributed.

HYPOTHESIS TEST

Table 3. Paired Sample t-Test Results

Variable	Mean Difference	t	Sig.
Pretest–Posttest	2.67	8.543	0.000

A p-value of 0.000 (<0.05) indicates a significant effect of brisk walking exercise on weight loss.

DISCUSSION OF RESULTS

The results of this study indicate that eight weeks of brisk walking significantly reduced body weight in overweight individuals. The average weight loss of 2.67 kg indicates that moderate-intensity aerobic physical activity can increase energy expenditure and help create a calorie deficit. Physiologically, brisk walking increases cardiorespiratory activity and metabolism. When performed regularly, the body increases the use of fat reserves as an energy source,

contributing to weight loss. Furthermore, aerobic exercise also improves insulin sensitivity and fat oxidation capacity.

These findings align with previous research that found that walking at least 150 minutes per week can have a positive impact on body composition. Individuals who consistently walked tended to experience greater weight loss and body fat percentage reduction than sedentary groups. The advantages of brisk walking as an exercise method include its ease of implementation, low cost, and relatively low risk of injury. Therefore, brisk walking could be an effective alternative in weight management programs for the general public.

However, this study has limitations due to the lack of strict control of respondents' food intake. Nutritional factors can influence the extent of weight loss that occurs during an exercise program.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Brisk walking exercise performed for 8 weeks, four times per week, for 30–45 minutes per session, has been shown to be effective in reducing weight in overweight adults. There was a significant difference between body weight before and after the brisk walking program. Brisk walking can be recommended as a simple, safe, and economical form of physical activity in a weight management program.

Recommendations

1. Overweight individuals are advised to regularly engage in brisk walking for at least 150 minutes per week.
2. Future research needs to control nutritional intake to obtain more accurate results.
3. Research with a control group and a larger sample size is needed.

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