

Pengaruh Pemberian Senam Aerobik terhadap Sagittal Abdominal Diameter (SAD) dan Lingkar Pinggang pada Mahasiswi Obesitas

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ABSTRAK

Latar Belakang: Prevalensi obesitas sentral semakin meningkat dan memiliki risiko lebih tinggi terhadap penyakit degeneratif. Kurangnya aktivitas fisik menjadi salah satu penyebab adanya obesitas sentral. Latihan fisik seperti senam aerobik diketahui dapat mengurangi penumpukan lemak dalam tubuh.

Tujuan: Penelitian ini bertujuan untuk melihat pengaruh senam aerobik terhadap Sagittal Abdominal Diameter (SAD) dan lingkar pinggang (LP) pada mahasiswi obesitas

Metode: Penelitian ini menggunakan *quasi experimental pre-post test with control group design*. Subjek berjumlah 22 orang mahasiswi obesitas berusia 19-25 tahun di Kota Semarang. Subjek dibagi menjadi kelompok kontrol dan kelompok perlakuan. Kelompok perlakuan diberikan edukasi dan intervensi berupa senam aerobik selama 4 minggu secara *online*, sedangkan kelompok kontrol diberikan edukasi. Data antropometri diukur secara langsung sebelum dan sesudah intervensi. Analisis data menggunakan uji *paired t-test*, *independent t-test*, dan *mann whitney*.

Hasil: Ada beda LP pada masing-masing kelompok sebelum dan sesudah intervensi. Penurunan LP kelompok perlakuan $-3,29 \pm 2,05$ ($p < 0,001$) lebih besar dibandingkan dengan kelompok kontrol $-2,64 \pm 3,2$ ($p = 0,023$). Namun, tidak terdapat perbedaan yang signifikan pada LP ($p = 0,579$) dan SAD ($p = 0,486$) antar kedua kelompok sebelum dan sesudah intervensi.

Simpulan: Terjadi penurunan LP lebih besar pada subjek kelompok senam aerobik dibandingkan dengan kelompok kontrol namun perbedaan keduanya tidak signifikan. Tidak ada beda SAD pada kedua kelompok sebelum dan sesudah senam aerobik.

Kata Kunci: Senam Aerobik, Sagittal Abdominal Diameter, Lingkar Pinggang (LP), Obesitas Sentral

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The Effectiveness of Aerobic Exercise on Sagittal Abdominal Diameter (SAD) and Waist Circumference in Obese Female Students

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ABSTRACT

Background: The prevalence of central obesity is on the rise and is linked an increased of degenerative disease. One of the causes of central obesity is a lack of physical activity. Exercise, such as aerobic exercise, is a known method for reducing fat accumulation in the body.

Objective: The aim of this study is to investigate the impact of aerobic exercise on Sagittal Abdominal Diameter (SAD) and waist circumference (WC) in female college students with obesity.

Method: This study used a quasi experimental pre-post test with control group design. A sample of 22 female college students with obesity in Semarang, aged between 19-25 years. The subject were divided into two group: control and treatment. The treatment group received education and intervention in the form aerobic exercise for four weeks, while the control group received education only, all conducted online. Anthropometric data were measured directly before and after the intervention. The collected data were analyzed using paired t-test, independent t-test, and Mann-Whitney tests.

Result: There was a difference in WC in each group before and after the intervention. The WC reduction in treatment group $-3,29 \pm 2,05$ ($p < 0,01$), which was greater than that in the control group $-2,64 \pm 3,2$ ($p = 0,023$). However, there was no significant difference in WC ($p = 0,579$) and SAD ($p = 0,486$) between two groups before and after the intervention.

Conclusion: There was a greater decrease in WC in the aerobic exercise group compared to the control group, but the difference between them was not significant. There was no difference in SAD between the two groups before and after aerobic exercise.

Keyword: Aerobic exercise, sagittal abdominal diameter (SAD), waist circumference (WC), central obesity

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