Effect of Zumba Combined with Halotherapy on Physical and Respiratory Parameters of Sedentary Men and Women

Mehmet Söyler[1], Alper Cenk Gürkan[2], Meriç Eraslan[3]*, Raif Zileli[4], Mustafa Türkmen[5], Serhat Aydın[6]

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Abstract

Objectives: In today's world, sedentary lifestyle is a significant reality when considering obesity rates. Due to their work commitments, people often cannot allocate sufficient time for exercise, which means they miss out on its benefits, negatively impacting their physical performance. Zumba is one effective way to combat a sedentary lifestyle. This study aims to examine the effects of Zumba fitness exercises combined with halotherapy on certain performance parameters in sedentary individuals.

Methods: A total of 20 sedentary volunteers participated in this study. All participants were randomly assigned to two groups: Group A (+Halotherapy) (n=10; 5 women, 5 men) and Group B (n=10; 5 women, 5 men). Both groups performed Zumba fitness exercises for 30 minutes, 4 days a week, for 12 weeks. However, Group A received an additional 20-minute halotherapy session after each Zumba exercise session. Body composition (body weight, body mass index, body fat percentage), respiratory parameters (MIP, FVC, FEV1, PEF, FEV1/FVC%, MVV), and VO_2max measurements were taken before and after the intervention in both groups. Statistical analyses included the Shapiro-Wilk test for normal distribution and the Levene test for variance homogeneity. Due to the non-parametric nature of the data, the Wilcoxon test was used for within-group comparisons, and the Mann-Whitney U test was used for between-group comparisons. Statistical significance was accepted at $p<0.05$. **Results:** According to the obtained data, statistically significant differences ($p<0.05$) were found in all parameters between pre-test and post-test values in both groups for both genders, except for BMI and MVV parameters in the group B women. However, when examining the mean scores of the group A (+Halotherapy), greater improvements were observed compared to the group B. **Conclusion:** In conclusion, the addition of a 20-minute halotherapy session to the Zumba fitness exercises over 12 weeks resulted in more effective outcomes on the parameters studied compared to Zumba fitness exercises alone.

Keywords: Halotherapy, Zumba, aerobic exercise, sedentary