



Effect of Zumba on Static Balance of Middle Age Women of Pune City

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KEYWORDS

Zumba, static balance, middle age, women and Pune city

ABSTRACT:

The main aim of the study was to check the “Effect of Zumba on Static Balance of Middle Age Women of Pune City.” This is an experimental pre-post study, for this study total 30 middle aged women aged ranged between 40-60 years were conveniently selected from Pune city. All the subjects were given total 6 weeks of Zumba training on static balance. 40 minutes for the first two weeks and for next four weeks the training program increased to 50 minutes. The data were collected in two phases i.e., pre-test and post-test. All the data were collected by using Stork Balance Stand Test, t- test was used as a statistical tool for analysing the data. The result of the study revealed that there was significant improvement observed in static balance level of middle age women of Pune city. Indicating that the training program was effective in enhancing static balance of middle age women of Pune city.

1. Introduction

Zumba is an exercise. It's mostly a cardiovascular workout that helps you burn calories and increase endurance. One of the most entertaining and adaptable exercise fads to emerge in a while is Zumba. An interval workout is Zumba. The lessons alternate between high- and low-intensity dancing maneuvers meant to increase cardiac endurance and raise heart rate. Zumba mixes a variety of simple sports moves that work a variety of body parts, including the arms, back, feet, and torso. It is an aerobic activity, which means that it burns a lot of calories. Zumba workouts assist to strengthen the heart and lungs, improve general fitness, and speed up circulation. Additionally, they improve the flow of oxygen to the body's muscles and other organs. Zumba works numerous muscle groups simultaneously for overall body toning. Improves cardiac health. You gain not only aerobic benefits (which significantly raise your

heart rate), but also anaerobic benefits, which support a healthy cardiovascular and respiratory system. There are two types of physical activity, such as aerobic and anaerobic training. Exercises like aerobics, jogging, swimming, and cycling make the heart and lungs work harder to oxygenate the muscles. Aerobics are quick workouts that don't use oxygen to replace fuel, like lifting weights and sprinting. Numerous sports, including swimming, jogging, cycling, aerobic dance, and zumba, might assist preserve physical health. Young women and older women today embrace Zumba and high impact aerobics as forms of exercise. One activity to enhance all aspects of fitness (flexibility, muscle strength, and cardiovascular fitness) is aerobic high impact, which includes strength training and regular stretching. In courses that have received training, aerobic high impact is typically performed with the goal of escalating exercise intensity while



following the beat of faster-paced music. Aerobic exercise refers to any physical activity that causes your body to receive more oxygen. Aerobic means "with oxygen," therefore it includes all physical activities. Your muscles need more oxygen to contract for an extended amount of time while you work out. Heart rate will rise as a result of the body's need to circulate more oxygen rich blood to your muscles. To get more oxygen into your body and bloodstream, your breathing rate will also rise. Aerobic exercise is sometimes referred to as "cardio" exercise since it increases the function of your heart, lungs, or cardiovascular system.

2. Methods

The study utilized an experimental pre-post type design, where the researcher conveniently selected 30 middle aged women from Pune city. The pre-test data were collected before delivering the 6 weeks Zumba training program, and a post-test was conducted after the completion of training program. The sample was selected based on inclusion and exclusion criteria, and convenient sampling was used for better representation of the whole population. The variables of the study were static balance, and the data were collected using the Stork Balance Stand Test. The data were analyzed by using t-tests.

Table 1: Training Regime for week 1 and week 2

Week 1 – Week 2		
	Activities	Duration
Warm-up	Marching, stepping, side walk, bending exercises, slow twisting exercises, floor exercises with increasing music.	10 minutes
Main part Zumba moves	4x8 simple steps marching, 4x8 single step front/back, 8 repetitions pull the knee, 8 repetitions open the legs side/back. For next repetitions speed were gradually increased.	20 minutes
Cooling down	The stretching movements were made in sitting, lying, and standing positions. Slow stretching were done.	10 minutes
Total		40 minutes

Table 2: Training Regime for week 3 and week 6

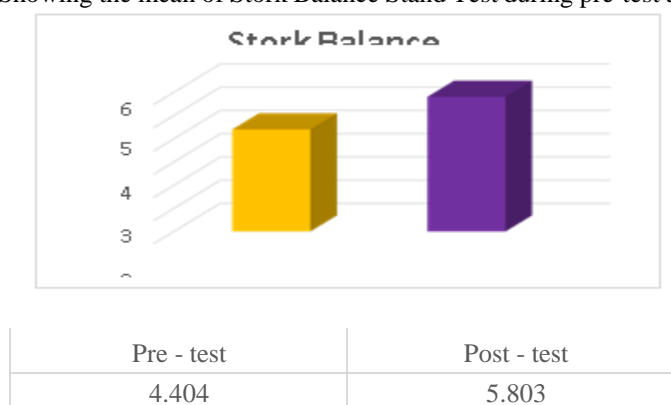
Week 3 – Week 6		
	Activities	Duration
Warm-up	Jogging, back running, twisting and bending exercises, jumping jacks, highknee with the increasing music.	10 minutes
Main part Zumba moves	V-step, A-step, reverse V, reverse turn, X-step, Z-step, I-step, clap and jump, Latin dance movements with the music beats. Gradually the pace was increased.	30 minutes



Cooling down	The stretching movements were made in sitting, lying, and standing positions. Slow stretching were done.	10 minutes
Total		50 minutes

Result:**Table 3:** Comparison of Stork Balance Stand Test scores during pre-test and post- test

Test	N	Mean	df	Cal. 't'	Tab. 't'
Pre-test	30	4.404	29	2.317	1.699
Post-test	30	5.803			

Figure 1: Showing the mean of Stork Balance Stand Test during pre-test and post-test**From table 3:**

The data compares pre-test and post-test scores, likely from an experiment or study. In the pre-test phase, 30 participants were assessed, yielding a mean score of 4.404. This initial measurement served as a baseline before any intervention or treatment. Subsequently, the same sample underwent the post-test phase, where the mean score increased significantly to 5.803. This improvement suggests that the intervention positively impacted performance.

The pre-test t-value of 2.317 exceeds the critical t-value of 1.699, indicating statistical significance. With $df = 29$, we can confidently conclude that there is a significant difference between the pre-test and post-test scores.

Conclusion

The findings of this study suggest that a 6 weeks zumba

training program can significantly improve the static balance level of middle aged women of Pune city. This study emphasizes the importance of specialized zumba training programs for enhancing the static balance of middle aged women of Pune city. Future studies can investigate the effect of longer training periods or different zumba training programs on the static balance level. In conclusion, this study has demonstrated that zumba can significantly improve the static balance of middle age women of Pune city. Therefore, it is recommended that such programs should be performed in a regular basis for enhancement of health and to achieve a better life. However, it is important to note that the study had some limitations, including a small sample size and measuring only two variables i.e., aerobic fitness and static balance for testing. Further research is needed to explore the impact of zumba on other physical fitness components. As the subjects had



taken the training schedule seriously, the effect was positive and there was significant rise in the static balance. From the conduction of this study, we can assume that this study emphasizes the benefits of performing regular zumba for the middle age women. Future studies can investigate the effect of longer training periods or different training programs. Overall, this study contributes to the existing literature on the effects of zumba on static balance and provides valuable insights for the middle age women as well as for the society.

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