Influence of Surya Namaskar and Step Aerobic Dance Training on Cardio-Respiratory Endurance and Flexibility in it Professionals

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ABSTRACT

The target of the present study was to find out the impact of Suryanamaskar practice with step aerobic dance training on cardio-respiratory Endurance and flexibility of it professionals. To achieve the purpose of the study, thirty IT professionals women'sfrom the tidal park, Coimbatore Tamilnadu, were selected as subjects at random and their age group range between 22 to 25 years. The study was formulated as pre and post test random group design, in which thirty IT professional women's were divided into two equal groups. The experimental group-1(n=15) underwent suryanamaskar practice with step aerobic dance training and group -2 served as control group (n=15). In this study, only one training program were adopted as independent variables and ability of cardio-respiratory endurance and flexibility was selected as dependent variable and it was tested by Cooper 12 minutes run/ walk, performance was recorded in meters and flexibility was tested by sit and reach box ability was recorded in centimeters. The training period of this intervention 6 days in a week for twelve weeks. The collected pre and post data was critically analyzed with dependent 't' test. The level of significance was fixed at 0.05 levels for all the cases in order to find out the significance. The result clearly proved that the suryanamskar practice with step aerobic dance training demonstrated better improvement on cardio-respiratory Endurance and flexibility.

Keywords: 1. Suryanamaskar practice 2. Step Aerobic dance Training 3. Cardiorepiratory endurance 4. Flexibility 5. 't' test.

INTRODUCTION

Cardio exercise is any exercise that raises your heart rate. Face it our bodies were made to move. And we all know that to keep our muscles in shape we need move them. This movement makes them stronger and stronger muscles make for a more efficient and healthy body. Suryanamaskar is a part of yogic practices composed of dynamic muscular movements synchronized with deep rhythmic breathing. Surya namaskar is believed to be an all-round exercise of series of twelve physical postures. These alternating backward and forward bending postures flex and stretch the spinal column through their maximum range giving a profound stretch to the whole body. Surya Namaskar has a deep effect in detoxifying the organs through copius oxygenation and has a deeper relaxing effect. Let me tell you "Surya Namaskar" or sun salutations have biggest positive impact on my life. Now I am regular practitioner of "Surya Namaskara". It is such a holistic way to improve on life quality. Step aerobics has all the benefits of a high-intensity cardio workout without putting stress on your joints. It improves overall fitness by building strength Trusted Source, reducing fat, and boosting your cardiovascular health. The moves target your legs, upper body, and core, building strength and flexibility.

They also improve your balance, coordination, and agility. The social component of a group class can be beneficial in forging new connections and may help to raise motivation levels.

METHODS AND TOOLS

To achieve the purpose of the study thirty IT professional womens in the age group of 22 to 25 years were selected as subjects at random of tidal park, Coimbatore, tamilnadu. The study was formulated as pre and post test random group design, in which thirty subjects were divided into two equal groups. The experimental group I undergone (n=15, SSADT) for Suryanamskar with step aerobic dance trainings and group II served as control group purpose. In this study, one training program were adopted as independent variables and the cardio- respiratory endurance and flexibility was selected as dependent variables and which were measured by 12 min run or walk test, and sit and reach box test. The performance of the subjects were recorded in meters and centimeters. One intervention group was performed 6 days in per week for 12 weeks. The collected pre and post data was critically analyzed with dependent 't' test was applied for the determined mean differences. The level of confidence was fixed at 0.05 levels for all the cases in order to find out the significance.

Training Programme

The training programme was lasted for 60 minutes for session in a day, 6 days in a week for a period of 12 weeks duration. These 60 minutes included warm up for 10 minutes, 15 minutes suryanamaskar practice after 30 minutes step aerobic dance trainings and 5 miniutes warm down. The equivalent in suryanamaskar practice with step aeropic dance training is the length of the time each action in total 6 day per weeks. (Monday to Saturday)

Table – I Computation Of 'T' Ratio On Cardio Respiratory Endurance Of Experimental Group And Control Group (Scores in beat/min/seconds)

Group	Test		Mean	Std. Deviation	T ratio
Cardiorespiratory Endurance	Experimental Group	Pre test	716.25	21.57	38.43*
		Post test	748.15	23.03	
	Control Group	Pre test	716.50	16.31	1.37
		Post test	715.75	17.34	

significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table I reveals the computation of mean, standard deviation and't' ratio on cardiorespiratory endurance of experimental. The obtained't' ratio on cardiorespiratory endurance were 38.43 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the experimental group't' values were greater than the table value of 2.14, it was found to be statistically significant. The control group 't' value is less then table value of 2.14 it was found to be statistically insignificant.

Figure- I Bar Diagram Showing The Mean Value On Cardiorespiratory Endurance Of School Boys On Experimental Group And Control Group

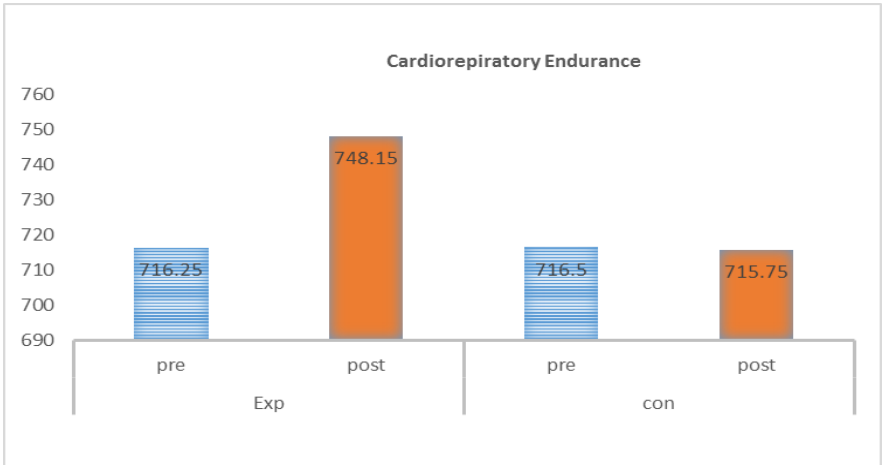


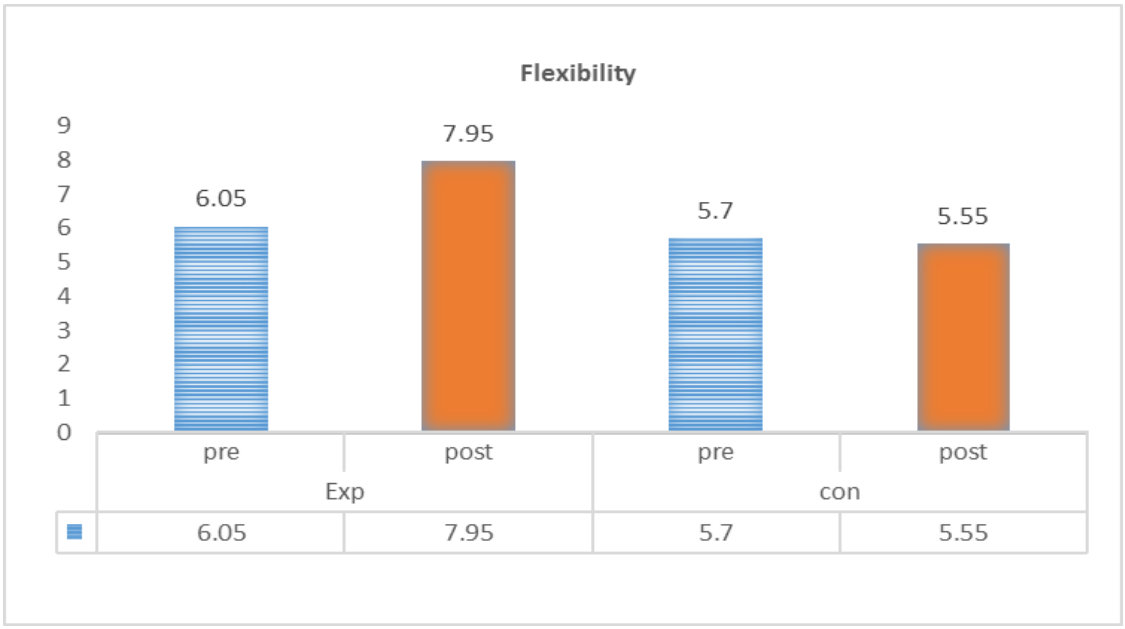
Table – II Computation of 'T' Ratio on Flexibility of Experimental Group and Control Group (Scores in beat/min/seconds)

Group	Test		Mean	Std. Deviation	T ratio
Flexibility	Experimental Group	Pre test	6.05	1.70	27.60*
		Post test	7.95	1.53	
	Control Group	Pre test	5.70	1.03	1.37
		Post test	5.55	0.99	

significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table II reveals the computation of mean, standard deviation and't' ratio on Flexibility of experimental. The obtained't' ratio on Flexibility were 27.60 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the experimental group't' values were greater than the table value of 2.14, it was found to be statistically significant. The control group 't' value is less then table value of 2.14 it was found to be statistically insignificant.

Figure- II Bar Diagram Showing the Mean Value on Flexibility of School Boys on Experimental Group and Control Group



DISCUSSION ON FINDINGS

The present study experimented the effect of Suryanamaskar with step aerobic dance trainings on physical parameters of IT working women's. The result of the study shows that the Suryanamaskar with step aerobic dance trainings improved the flexibility and cardiorespiratory endurance. The findings of the present study had similarity with the findings of the investigations referred in this study. However, there was a significantly changes of subjects in the present study the flexibility and cardiorespiratory endurance was significantly improved of subject in the group may be due to the in Suryanamaskar with step aerobic dance. **Hopkins** *et al.*, **(1990)** reported that 12 weeks of low impact aerobic dance, the group improved significantly on all functional fitness components. **Justin** *et al.*, **(2009)** investigated that best to structure dance programs for older adults to maximize gains in physical function while ensuring participant safety and enjoyment. **Chanelle** *et al.*, (2009) concluded that the aerobic-based physical activity programme improved aerobic endurance, muscular strength and muscular endurance, and the tone of the body. **Ceylan, H. İ.,** *et al.*, **(2014).** Examining of the effects of aerobic dance and step dance exercises on some hematological parameters and blood lipids. According to these

results; it can be said that regular, structured and planned Suryanamaskar with step aerobics for 12 weeks of IT Professionals who have a positive effect on improving their Physical changes.

CONCLUSION

From the results of the study and discussion the following conclusions were drawn.

The results of the present study demonstrated that 12 weeks of Suryanamaskar with step aerobics practice increased the cardiorespiratory endurance and flexibility of IT women Workers. Therefore, it is suggested that Suryanamaskar with step aerobics practice should be used as an effective strategy to promote improvements in the functional fitness of apparently healthy women. Its low operational cost, easy applicability, high attendance rate, and the fact that it can be performed by many individuals of different fitness levels at the same time make this modality viable to be implemented in any community center. Physiological competency appears to be a better predictor of women's Suryanamaskar with step aerobics practice during physical activity opportunities than breathing competency. Findings from the current study substantially contribute to the understanding of Suryanamaskar with step aerobics practice in women and will assist in evidence-based intervention design to increase cardio capacity and flexibility.

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