A COMPARATIVE STUDY OF CARDIOVASCULAR EFFICIENCY ON SEDENTARY PEOPLE, REGULAR WALKERS AND YOGA PRACTITIONERS

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ABSTRACT
The purpose of the study was to compare the Cardiovascular efficiency among sedentary people, regular walkers and yoga practitioners. For this study 40 subjects from each group (sedentary people, regular walkers and yoga practitioners) making a total of one hundred & twenty subjects were selected from the people of all the (five) regions of Utter Pradesh. First group consisted of the subjects, who were regularly undergoing walking for at least 30 to 45 minutes since last three years, second group consisted of the subjects, who were regularly practicing yoga for 30 to 45 minutes since last three years and third group consisted of sedentary people. The age of the subjects ranges from 50 to 55 years. Cardio vascular efficiency was measured by Harvard step test. The data pertaining to this variable had been analysed by using the descriptive statistics i.e., mean & Standard deviation, one way analysis of variance (ANOVA) to find out the significant difference among the means. In case of significant difference then post-hoc test (LSD) was applied in order to determine the significant difference between the paired means. In all the cases, 0.05 significance level was used to test the significance. The result of the present has revealed that there was no significant difference was found between regular walker & yoga practitioners in the dimensions of Cardio-vascular efficiency and significant difference were found between sedentary people & regular walkers and significant difference existed between Sedentary people and yoga practitioners.
KEY WORDS: Cardiovascular efficiency, sedentary people, regular walkers, yoga practitioners

INTRODUCTION
Physical fitness is not only one of the most important keys to a healthy body; it is the basis of dynamic and creative intellectual activity. The relationship between the soundness of the body and the activities of the mind is subtle and complex. Much is not yet understood. But we do know what the Greeks knew that intelligence and skills can only function at the peak of their capacity when the body becomes healthy and strong; then hardy spirits and tough minds usually inhabit a sound body. (John E. Walsh; 1978)[1]. Yoga regards the physical body as an instrument for his journey towards perfection. Yogic exercise not only develops the body but also broadens mental facilities. More ever, yoga acquires mastery over the involuntary muscles of different organs. The fundamental difference between yogic exercise and ordinary physical exercise is that physical exercise emphasis violent movement of the muscle, whereas yogic exercise opposes violent muscle movement as they causing fatigue. In the yogic system, all movements are slow and gradual with proper breathing and relaxation. Yogic exercise pays great attention to the spinal column and other joints. More ever they maintain an even supply of blood to every part of the body. Yogic exercises also do play an important role in the mobilization of the joint and efficiency of the cardiorespiratory system (Swami Kuvalyananda; 1971)[2] . In order to update and clarify the 1995 recommendations on the categories and amounts of physical activity required by healthy adults to enhance and maintain health, associate degree updated report on physical activity and public health, a circulation was revealed in August 2007. The researchers determined that intermittent furthermore as sustained activity may be useful. In alternative words, on days once you cannot fit in a 30-minute walk, you'll be able to still garner fitness edges by taking 2 or shorter walks squeezed in throughout the day. this might appear somewhat confusing to those that ar well conversant in previous recommendations to exercise for a sustained amount of twenty to hour. sweat for a sustained amount of your time remains the most effective method we all know to create enhancements in cardio-respiratory fitness. except for several, sweat for long periods of your time may be daunting. And most United States of America

|folks |people} expertise days once unforeseen events throw off our schedules and stop us from having a solid block of your time for exercise. important health edges may be complete by merely ceasing to sit down and getting down to move. the chance of developing cardiopathy, high pressure level, non-insulin-dependent diabetes mellitus, and colon and breast cancers may be reduced simply by turning into a lot of physically active (W.L. Haskell; 2007)[3]. Walking is wide counseled for its health edges. in line with a recent U.S. physician General report on physical activity and health in America, over 1/2 the U.S. population doesn't participate frequently in any style of exercise and twenty-five % of the adult populations aren't active the least bit. Moreover, though many of us have sky-high commenced vigorous exercise programs at only once or another, most don't sustain their participation. That physical inactivity will result in poor health. The physician General urged Americans to "get in form," encouraging everybody to induce a minimum of common fraction hour of moderately vigorous activity (such as brisk walking) every day. the most recent recommendations recommend that you simply ought to try and walk 2 miles at a brisk pace of 3 to four miles per hour nearly on a daily basis. it's progressively obvious that one amongst the most effective ways that to keep up physiological state is thru physical activity. Regular participation in exercise has been shown to be useful within the hindrance of such killers as cardiopathy, cancer, and polygenic disorder. Exercise additionally helps to manage weight. and since exercise helps to strengthen muscles and bones, it will even decrease your risk of developing diseases like pathology and inflammatory disease (N.C.C.D.P. & H.P; 1999)[4] . It is concerned with the development and maintenance of the fitness components that can enhance health through the prevention and remediation of disease and illness. Health-related fitness enhances one's ability to function efficiently and maintain a healthy lifestyle. Thus health-related fitness is important for all individuals throughout life (A. Deborah Wuest; 1991)[5].

The purpose of the study was to compare the cardiovascular efficiency among sedentary people, regular walkers, and yoga practitioners.

OBJECTIVES

Following objectives set for the study:

- To study the cardiovascular efficiency of different group of peoples
- To analyses their life style

METHODOLOGY

The 40 subjects from each group (sedentary people, regular walkers and yoga practitioners) making a total of one hundred & twenty subjects were selected from the people of all the (five) regions of Utter Pradesh. First group consisted of the subjects, who were regularly undergoing walking for at least 30 to 45 minutes since last three years, second group consisted of the subjects, who were regularly practicing yoga for 30 to 45 minutes since last three years and third group consisted of sedentary people. The age of the subjects ranges from 50 to 55 years. Cardio vascular efficiency was measured by Harvard step test. The data was been analyzed by using the descriptive statistics i.e. mean & Standard deviation, one way analysis of variance (ANOVA) to find out the significant difference among the means. In case of significant difference, post-hoc test (LSD) was applied in order to determine the significant difference between the paired means. The F-value was set at 0.05 level. All statistical function was performed by the use of SPSS v.16 software.

TABLE- 1 Descriptive Statistics of sedentary people, regular walkers and yoga practitioners.

Variables	Groups	N	Mean	Std. Deviation	Std. Error
Cardio vascular efficiency	Sedentary People	40	47.0480	9.80975	1.55106
	Regular Walker	40	55.2945	10.46473	1.65462
	Yoga. Practitioner	40	51.5517	9.22277	1.45825

Table-2 Analysis of Variance of sedentary people, regular walkers and yoga practitioner

Variables	S. V.	Sum of Squares	df	Mean Square	F
Cardio vascular efficiency	Between Groups	1363.956	2	681.978	**7.036***
	Within Groups	11341.246	117	96.934	

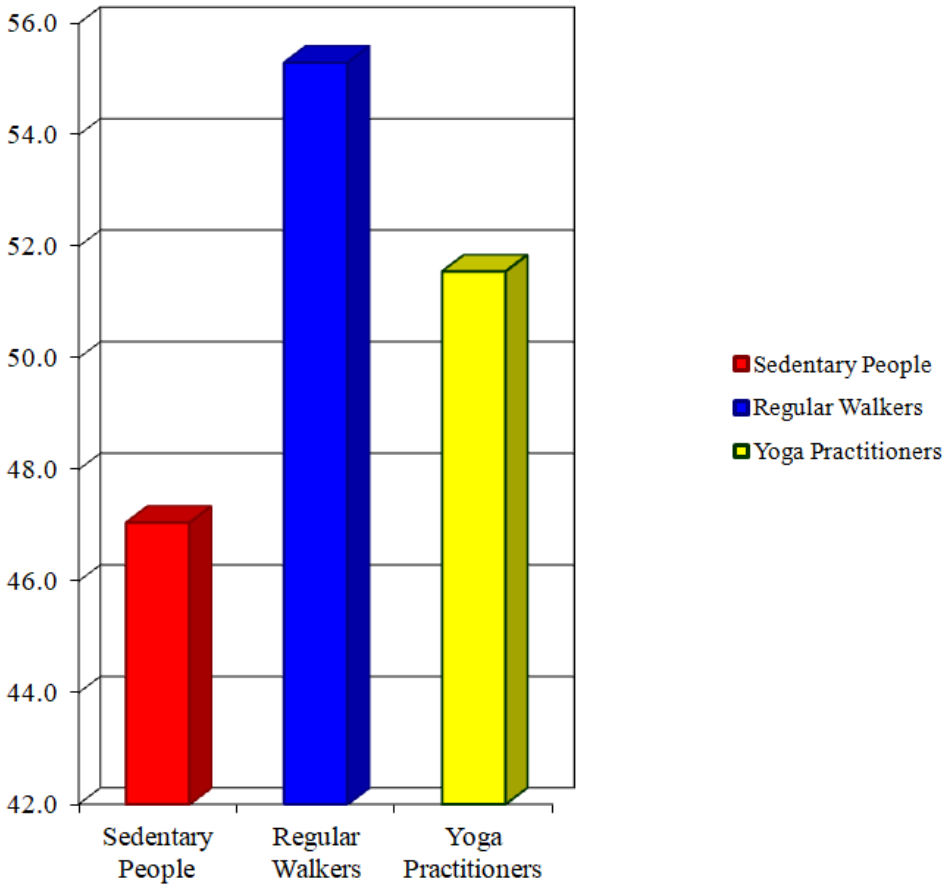
Since Tabulated F 0.05 (2, 117) = 3.06, Hence there is a significant difference was existed in cardiovascular efficiency.

Table-3 Least Significant Difference (LSD) post hoc test for the paired means among sedentary people, regular walkers and yoga practitioners.

Variables	Sedentary People	Regular Walkers	Yoga Practitioners	Mean Difference	Sig.
Cardio vascular efficiency	47.0480	55.2945		8.246*	0.000
		55.2945	51.5517	3.742	0.092
	47.0480		51.5517	4.503*	0.043

***Significant at 0.05 level of confidence.**

Figure 1 Graphical representation of the Comparison of Means of sedentary people, regular walkers and yoga practitioners in relation to Cardio vascular efficienc



RESULT AND DISCUSSION

Cardio-Vascular Efficiency

In the dimension of Cardio-vascular efficiency, a significant difference existed between Sedentary people & Regular walkers and Sedentary people & Yoga practitioners, whereas a significant difference was not found between Regular walkers & Yoga practitioners. It was also observed that regular walkers had better Cardio-vascular efficiency comparing to Yoga practitioners and Sedentary People. This finding is supported by Ganguly and Gharote[5], Nandi and Adhikari[6], Chen T.L.[7] and Ravi Kumar[8].

Walking & Yoga probably puts an appropriate load on the Cardio-vascular system, as a result of which Cardio-vascular efficiency is increased in Regular walkers & yoga practitioners up to a higher-level Comparing to Sedentary people.

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