

Influence of Varied Intensity of Walking on Selected Cardio Respiratory Endurance Variable Among Middle Aged Men

J. Karthikeyan

Department of Physical Education, Health Education and Sports ,The M.D.T Hindu College, Tamilnadu , India

Abstract

The purpose of this study was to find out the influence of varied intensity of walking on selected cardio respiratory endurance variable among middle aged men. The subjects were restricted to a minimum number of Sixty subjects consisting of Twenty men subjects would serve as control group and the remaining Forty would undergo systematic walking training and among forty, twenty for Low intensity walking group (LIWG) and remaining twenty for High intensity walking group (HIWG) at The M.D.T Hindu College, Tirunelveli, Tamilnadu under the supervision of researcher. The subjects were selected from Tirunelveli city, Tamilnadu and their age was from 35 to 45 years as per the school records. The study was formulated as a random group design. The score were compared by using (ANCOVA) The level of significant chosen was 0.05 level. High intensity walking group (HIWG) showed better result on the variables cardio respiratory endurance for middle aged men.

Key Words: Walking, cardio respiratory endurance, High Intensity walking, Low intensity walking and Twelve minutes Cooper Run and Walk

Introduction

Various works might have been done about walking. Particularly this study expresses about low intensity and high intensity walking so this study is need. In the modern world people have no time to take care about their health that's why the study is need. Many theses have been done only about walking, but my area focuses walking on selected cardio respiratory endurance variable among middle aged men. I can state that middle aged men can never do hard exercise. They can do simple exercise like jogging and walking. Middle aged men are affected by some disease like diabetics they being middle aged men, it is difficult to them to undertake hard exercise so the study is need.

Purpose of the study

Most of the people do not know the need of walking, walking is the simplest exercise. Middle aged men are ready to run fast at the age of 37 even though they are ready to run they don't know the benefits of walking. Without knowing the benefits of walking they run so the study is need.

Methodology

The purpose of the study was to find out the influence of varied intensity of walking on selected cardio respiratory endurance variable among middle aged men. To achieve this purpose, sixty men subjects who were not involved in any vigorous physical training programme at the age ranging from 35 to 45 years were selected from in and around Tirunelveli city. The selected subjects were divided into three groups at random with 20 each. In the experimental groups twenty men subjects would serve as control group and the remaining Twenty would undergo systematic walking training, under the

supervision of researcher. The control group did not undergo any special training programme. The selected subjects were medically examined by a qualified medical person for undergoing the training programme. The training groups underwent 12weeks training programs regularly from 6 a. m to 7 a.m. in the morning session Weekly 6 days

Results

Table I
Means, Standard Deviations and Adjusted Means among Experimental and Control Groups on cardio respiratory endurance

Criterion Variable	High Intensity Walking Group				Low Intensity Walking Group				Control group			
	Pre test	Post test	Adjusted post test means	t test	Pre test	Post test	Adjusted post test means	t test	Pre test	Post test	Adjusted post test means	t test
cardio respiratory endurance	1350.00	1637.50	1637.62	1637.62	1357.50	1494.00	1488.63	1488.63	1343.00	1350.50	1355.74	1355.74
	29.736	120.082			23.592	66.285			26.577	38.179		

*Significant at .05 level. The table value required for .05 level of significance with df 19 is 1.729.

The Table I show that the obtained dependent t-ratio values between the pre and post test means on cardio respiratory endurance of HIWG, LIWG and control groups are 1637.622, 1488.631 and 1355.747 respectively. The table value required for significant difference with df 19 at .05 level is 1.729. Since, the obtained 't' ratio value of experimental groups are greater than the table value, it is understood that training programmes had significantly improved the performance of muscular strength. However, the control group has not improved significantly as the obtained 't' value is less than the table value, because they were not subjected to any specific training.

Table II
Analysis of Covariance of High Intensity Walking Group, Low Intensity Walking Group and control groups on cardio respiratory endurance

Criterion Variable		Sources of Variance	Sum of Squares	df	Mean Squares	F-Ratio
cardio respiratory endurance	Pre test	Between	2103.333	2	1051.667	1.469
		Within	40795.000	57	715.702	
	Post test	Between	823690.000	2	411845.000	60.951*
		Within	385150.000	57	6757.018	
	Adjusted Post test	Between	787376.626	2	393688.313	60.688*
		Within	363279.258	56	6487.130	

*significant at .05 level of confidence. (the table value required for significance at .05 level with df 2 and 57 and 2 and 56 are 3.162 and 3.166, 3.162 and 3.166, 3.162 and 3.166 respectively

From the Table II, the obtained F-ratio for pre test is 1.836 which is greater than the table value of 3.162 and 3.166 with df 1 and 56 required for significance at 0.05 level of confidence. The result of the study indicates that there was significant difference among the pre test means of HIWG, LIWG and control groups on cardio respiratory endurance. Table II also shows that the obtained F-ratio value is 60.688*which is higher than the table value 3.162 and 3.166 with df 2 and 56 required for significance at .05 level. Since the value of F-ratio is higher than the table value, it indicates that there is significant difference among the adjusted post-test means of HIWG, LIWG and control groups. To find out which of the

three paired means had a significant difference, the Scheffe's post-hoc test was applied and the results are presented in Table III

Table III
Scheffe's Test for the Differences between the Adjusted Post Test Paired Means of cardio respiratory endurance

Adjusted Post Test Mean						
Criterion Variable	High Intensity Walking Group	Low Intensity Walking Group	Control Group	Mean Differences	C.I. Value	Result at 5% Level
cardio respiratory endurance	1637.622	1488.631		148.991	64.091	Sig
	1637.622		1355.747	281.875	64.091	Sig
		123.751	126.299	2.548	0.745	Sig

*Significant at .05 level.

Table III shows that the mean difference between the HIWG and control group, LIWG and control group and the HIWG and the LIWG were 281.875, 132.883 and 148.991 respectively and these values are greater than the C.I value of 64.091. It was clear that both the group showed improvement on muscular strength when compare with control group when compare the improvement between the HIWG and the LIWG, the HIWG showed better improvement than the LIWG.

Discussion

It was clear that both the groups showed improvement on cardio respiratory endurance when compare with control group when compare the improvement between the HIWG and the LIWG, the HIWG showed better improvement than the LIWG.

Conclusion

1. It was found that the High intensity walking group (HIWG) showed better result on the variables Muscular strength and Cardio respiratory endurance for middle aged men.

References

- Franceschini M et al "Cost of walking, exertional dyspnoea and fatigue in individuals with multiple sclerosis not requiring assistive devices" *J Rehabil Med.* 2010 Sep;42(8):719-23
- Gremeaux V et al "Does eccentric endurance training improve walking capacity in patients with coronary artery disease? A randomized controlled pilot study" *Clin Rehabil.* 2010 Jul;24(7):590-9.
- Morton RD, et al" Heart rate prescribed walking training improves cardiorespiratory fitness but not glycaemic control in people with type 2 diabetes" *J Sports Sci.* 2010 Jan;28(1):93-9
- Rampello A et al "Effect of aerobic training on walking capacity and maximal exercise tolerance in patients with multiple sclerosis: a randomized crossover controlled study" *Phys Ther.* 2007 May;87(5):545-55.
- Starholm IM" Energy expenditure of transfemoral amputees walking on a horizontal and tilted treadmill simulating different outdoor walking conditions" *Prosthet Orthot Int.* 2010 Jun;34(2):184-94