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Influence of varied intensity of walking on selected muscular strength and cardio respiratory endurance variables among middle aged men

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Abstract
Today's people are leading a very unhealthy lifestyle. Inadequate sleep, eating disorder, lack of proper regular exercise, increased rate of obesity and other health diseases, shooting stress levels are some of the facts that define the contemporary world's lifestyle. It can be said that in the present era, human beings have got so engrossed in earning money, that they have virtually stopped paying attention to their physical and mental fitness. The purpose of this study was to find out the influence of varied intensity of walking on selected Muscular Strength and Cardio Respiratory Endurance variables 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 LIG and remaining twenty for HIG at The M.D.T Hindu College, Tirunelveli under the supervision of researcher. The subjects were selected from Tirunelveli city, 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.

Keywords: muscular strength, cardio respiratory, inadequate sleep, eating disorder

1. Introduction

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 the researcher area focuses walking on selected Muscular Strength and Cardio Respiratory Endurance variables among middle aged men. 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.

Most of the people do not know the need of walking but 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.

2. Methodology

The purpose of the study was to find out the influence of varied intensity of walking on selected Muscular Strength and Cardio Respiratory Endurance variables 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 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 the subjects from the groups were instructed every day in the schaffter higher secondary school campus and The M.D.T Hindu college campus.

They were divided into two groups they are Low intensity walking group (LIWG) and High intensity walking group (LIWG)

The researcher has instructed the low intensity walking group for the first two weeks 50% and then every week the researcher increased the intensity 2% every week. Like the same method was followed for the high intensity walking group but the researcher has started their intensity from 70% in the first two weeks then every week the researcher has increased 2% in their intensity per week. The training was given them at the morning session only in the same time slot circulated the experimental groups for more equate the groups.

3. Analysis of data and results of the study

Table 1

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
Muscular strength	36.350	40.550	40.385	40.385	36.000	38.900	38.939	38.939	35.850	36.200	36.326	36.326
	0.671	0.999			0.725	1.119			0.671	0.834		

cardio respiratory endurance	1350.000	1637.500	1637.622	1637.622	1357.500	1494.000	1488.631	1488.631	1343.000	1350.500	1355.747	1355.747
	29.736	120.082			23.592	66.285			26.577	38.179		

Means, Standard Deviations and Adjusted Means among Experimental and Control Groups on muscular strength and cardio respiratory endurance

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

The table 1 show that the obtained dependent t-ratio values between the pre and post test means on muscular strength and cardio respiratory endurance of High Intensity Walking Group, Low Intensity Walking Group and control groups are 40.385and 1637.622, 38.939 and 1488.631, 36.326, 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 and cardio respiratory endurance. 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 2: Analysis of Covariance of High Intensity Walking Group, Low Intensity Walking Group and control groups on muscular strength and cardio respiratory endurance

Criterion Variable		Sources of Variance	Sum of Squares	df	Mean Squares	F-Ratio
Muscular Strength	Pre test	Between	2.633	2	1.317	2.769
		Within	27.100	57	0.475	
	Post test	Between	192.900	2	96.450	98.260*
		Within	55.950	57	0.982	
	Adjusted Post test	Between	156.507	2	78.254	93.644*
		Within	46.796	56	0.836	
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 respectively

From the table 2, the obtained F-ratio for pretest is 2.769, 1.469 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 High Intensity Walking Group, Low Intensity Walking Group and control groups on muscular strength and cardio respiratory endurance.

Table 2 also shows that the obtained F-ratio value is 93.644*, 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 High Intensity Walking Group, Low Intensity Walking Group 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 3.

Table 3: Scheffe's Test for the Differences between the Adjusted Post Test Paired Means of muscular strength and 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**
Muscular Strength	40.385	38.939		1.447	0.727	Sig
	40.385		36.326	4.059	0.727	Sig
		38.939	36.326	2.613	0.727	Sig
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 3 shows that the adjusted post test mean differences on muscular strength between the high intensity walking group, low intensity walking group; high intensity walking group and control group; low intensity walking group and control group were 4.059 and 1.447.respectively. The values are greater than the confidence interval value 0.727, which shows significant difference at .05 level of confidence.

it was clear that the F ratio for the adjusted post test mean for cardio respiratory endurance was 60.688 which was significant at 0.05 level because the required table value

needed for significant was 3.166 for df 2 and 56 and the obtained values were greater than that of required table value. So the scheffe's post hoc test was applied.

4. Conclusions

The following conclusions were derived from the analysis.

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.

5. References

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