

# # C 541466 : MAJOR PHYSICAL EDUCATION

KEY WORD: DIFFERENT INTENSITY EXERCISES/ CORONARY HEART DISEASE PRIMARY RISK FACTORS / THE ELDERLY

APICHART TRAISANG : EFFECTS OF DIFFERENT INTENSITY EXERCISES UPON THE ELDERLY ' S CORONARY HEART DISEASE PRIMARY RISK FACTORS. THESIS

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The purposes of this research were to study the effects of different intensity exercises upon the elderly ' s coronary heart disease primary risk factors. The subjects were sixty elderly persons, 60 - 70 years of age with borderline isolated systolic hypertension and hyperlipidemia. They were randomly assigned into four groups, fifteen persons in each group , three experimental groups and one control group. Each experimental group exercised up to the assigned intensity of work for 24 weeks. The coronary heart disease primary risk factors , maximum oxygen consumption , resting heart rate , body mass , percent of body fat and electrocardiogram were recorded. The obtained data were analyzed in terms of means , standard deviations , One - Way Analysis of Variance and One - Way Analysis of Variance repeated measures. The Tukey method was also used in the multiple comparison to determine the significant differences between means.

The results revealed that :

1. The exercises at different intensities decreased coronary heart disease risk appraisals and changed coronary heart disease primary risk factors as in the following :

The experimental group I exercising with an intensity of 50 - 55 percent of maximum heart rate reserve decreased resting systolic blood pressure and the total cholesterol / high density lipoprotein ratio but the high density lipoprotein increased.

The experimental group II exercising with an intensity of 60 - 65 percent of maximum heart rate reserve decreased the total cholesterol / high density lipoprotein ratio but the high density lipoprotein increased.

The experimental group III exercising with an intensity of 70 - 75 percent of maximum heart rate reserve decreased the total cholesterol , low density lipoprotein and total cholesterol / high density lipoprotein ratio but the high density lipoprotein increased.

2. The experimental group II , and III exercising with intensities of 60 - 65 and 70 - 75 percent of maximum heart rate reserve increased the maximum oxygen consumption.

The resting diastolic blood pressure , triglyceride , resting heart rate , body mass , percent of body fat and electrocardiogram of all groups were not significantly different at the .01 level.

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