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Abstract

The relationship between aerobic fitness and depression level determined with Hamilton scale in older adults

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ABSTRACT

INTRODUCTION: Depression is a major public health problem associated with both morbidity and mortality throughout the world, in Mexico epidemiological reports show a prevalence of depression in older adults of 9.5% in women and 5% in men; it is widely held that regular exercise and physical activity in older subjects have a significant impact on psychological health and well-being. **PURPOSE**: To determine whether if higher aerobic fitness is associated with decreased symptoms of clinical depression in older adults. **METHODS**: Participants (n=21) included individuals raging ages from 61 to 72 years old and were not regular exercisers. The 6 minute walking test was used to determine the aerobic fitness, the total distance covered during the test was determined with pedometers; all subjects were free of unstable cardiovascular symptoms and disabilities that could interfere with performance in the sub-maximal exercise test. Indirect Peak Oxygen Consumption (VO_{2peak}) was obtained with the equation stablished by Burr et al. (2011). Depression Symptoms were evaluated using the Hamilton Depression Scale which consisted of an interview of the subjects and scoring 17 items defined in terms of a series of categories of increasing intensity. Statistical analyses included a non-parametric Spearman correlation test to determine the association between predicted VO_{2peak} and depression, level of significance was stablished at $P \leq 0.05$. **RESULTS**: Twenty one overweight (BMI 29.3±3.7 kg/m^2) subjects that presented mild clinical depression symptoms were included in the study. A moderate negative correlation between predicted peak VO_2 and depression was obtained, with a coefficient of r= -0.5099 ($P \leq 0.05$). A regression analysis was performed to establish the significant predictor of VO_2 entering the analysis a psychological variable as a dependent factor (P value 0.0102). **CONCLUSION**: Based on the results, there is evidence that aerobic exercise could be a plausible and healthy strategy to avert depressive symptoms in the appearance of clinical depression in older adults.