The association between cardiorespiratory fitness and physical activity levels of central obese adults in Enugu state (eastern part), Nigeria

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Central obesity and its implicated adverse health conditions are a major concern for some people. Central obesity is one of the predisposition factors to cardiovascular disease, respiratory conditions, type-2 diabetes mellitus, cancer and others. The purpose of this study was to determine the relationship between central obesity, cardio respiratory fitness and physical activity level among adults in Enugu State. Three hundred and seventeen (317) subjects (158 obese and 159 non obese) who met the inclusion criteria and gave their informed consent participated in the study. Their waist to hip ratio was determined using measuring tape. Body Mass Index measured with stadiometer and weighing scale. Cardio respiratory fitness was determined using Harvard Step Test and International Physical Activity Questionnaire (IPAQ) was used to determine their physical activity level. Data collected was analyzed descriptively and inferentially using correlation test. The level of significance was set at \( p=0.01 \). The physical activity level of obese adults in Enugu State increases in an ascending order of vigorous, low, moderate while the cardiorespiratory fitness decreases in reverse direction as low, average, good, excellence and very low. There was a significant relationship between cardio respiratory fitness and physical activity \((r=0.146, \text{ sig}=0.009)\). There was also a significant relationship between waist-hip ratio and cardiorespiratory fitness \((r=-0.221, \text{ sig}=0.000)\). In this seminar, I will discuss the effect of central obesity on cardio-respiratory fitness and physical activity on adults and its pathophysiology.

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