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Correlation between Fitness Index and BMI among 1st MBBS Students of a Tribal District Teaching Hospital of India

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Abstract

Aim: Present study was conducted to investigate association between Body Mass Index (BMI) and physical fitness among 1st M.B.S. students of a tribal district teaching hospital of south India. **Method:** A total of 100 students including 39 males and 61 females of age group between 17-19 years were assessed for their cardiorespiratory fitness, measured using maximal oxygen uptake (VO_2 max) by the Mc Ardle Step Test. The subjects were instructed to perform test for a total duration of three minutes at the rate of 24 cycles per min. After completion radial pulse rate was recorded from the 6th to 20th sec of the recovery period in same position. 15 sec pulse rate was converted into heart rate/min & the VO_2 max was calculated from Wassermann's equation. **Result:** Observed mean BMI (kg/m^2) was 22.83 ± 1.76 and 24.06 ± 2.13 ; and mean VO_2 max ($ml/kg/min$) 47.66 ± 7.81 and 35.59 ± 4.06 for male and female, respectively. Correlation coefficients between both BMI and VO_2 max were statistically significant ($r = -0.32$). **Conclusion:** This study illustrated a negative moderate relationship between body mass index and physical fitness among the students of this tribal district teaching hospital.