Abstract Group: 6.3. Tobacco, Smoking Control and Health Education

Keyword 1: Lung function testing  Keyword 2: Longitudinal study  Keyword 3: Smoking

Title: Longitudinal study of pulmonary function tests in students of Shalamar Medical and Dental College Lahore Pakistan

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Body: Background: A research was conducted on students of 1st year, Shalamar Medical and Dental college in 2010 using Students’ Wet Spirometer, aimed at observing the difference in predicted and recorded vital capacity in young Pakistani adults. In December 2012, the study was done to identify some factors that affect the growth and development of lung functions in young medical students of same batch belonging to age group 19-25 years, using Spirolab III version 3.4. Vital capacity and forced expiratory Spirograms were obtained in a cohort of young males (n=30) and females (n=46) at intervals of approximately 2 years. Factors that affected the normal pattern of lung function development in this group were smoking, obesity and exercise. FEV1/VC and FEV1/FVC ratios were calculated and found altered in both groups, i.e those who were smoking and those who smoked and were exercising. Results: There was significant difference in FEV1/VC and FEV1/FVC ratio at (p<0.5) in students who had stopped smoking during this period. The female and male students who did exercise regularly also showed an improvement in their pulmonary functions like VC, FVC, FEV1. CONCLUSION: It is concluded that in relatively healthy group of young adults most measures of respiratory function reach optimum values at 19 or 20 years of age and change little if healthy living habits are continuously adopted. It was advised to students to quit smoking, do regular exercise and avoid obesity.