

WHAT ELSE MUST WE KNOW ABOUT CARDIOVASCULAR PREVENTION IN MEDICAL SCHOOL FRESHMEN?

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Purpose. The aim of the study was to examine prevalence of CVD risk factors and impact of casual blood pressure on cognitive function in 1st and 6th year medical male students.



Methods. Cross-sectional study was conducted during 2014 -2020. 222 first year (age (M m) 18.5 0.1 years) and 207 6th year male medical students (age 23.5 0.3 years) completed 45-item questionnaire about habitual life-behavior and performed 9 cognitive tasks.

Results. In freshmen mean body height was 180.3 0.5 cm; weight – 76.8 1.1 kg, body mass index (BMI) – 23.6 0.3 kg/m²; heart rate – 82.1 0.9 bpm; casual systolic BP (SBP) -131.9 2.3 and diastolic BP (DBP) – 77.6 0.6 mm Hg. 6th year male students had similar height (179.6 0.5 cm), but were heavier (80.5 1.0 kg; p<0.01; BMI =24.9 0.3 kg/m²; p<0.01). Heart rate (78.7 0.8 bpm; p<0.05) and casual SBP (126.7 0.8 mm Hg; p<0.05) were lower. No difference was found in DBP (77.8 0.6 mm Hg).

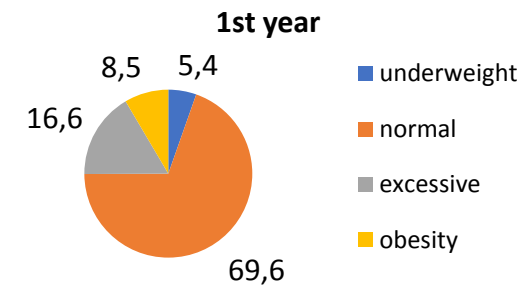


Fig.1. Distribution of BMI in freshmen

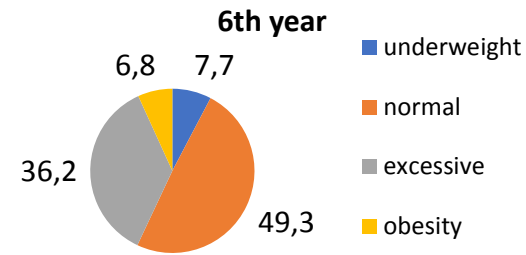


Fig.2. Distribution of BMI in 6th year students

Low physical activity reported 22.1% and 29.9%. Current smokers were 9.4 and 18.8 % . Casual SBP lay in high normal range in 27.4 % of 1st and in 34.3% of 6th year, and above 140 mm Hg – in 21.5 and 14%.

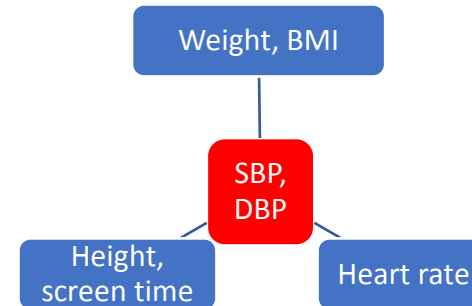


Fig.3. Correlation analysis results in both groups

Only in freshmen SBP was related to cognitive functions: 17-18 year's ones with elevated BP made some tests faster, whereas 19-20 year's – slower, but had better working vision memory.

Conclusions. In modern medical male students casual BP within the normal range was only in 49 % of 1st and in 48 % of 6th year students, 25 % of freshmen and 43 % of 6th year males were overweight or obese, and one quarter was physically inactive. Besides healthy lifestyle and nutrition promotion quite necessary is also to limit screen time.

