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Correlation Between College Students' Physical Fitness and Running Habits

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Abstract

The purpose of this study was to examine the correlation between the Physical Fitness of Chinese college students and their daily Running Habits (RH). A total of 718 college students from East China Normal University participated in this study (385 boys and 333 girls). Each participant participated in the Chinese Students' Physical Fitness Test (CSPFT) during the 2018-2019 school year. In addition, each student was also required to use the APP to record all their running results during each run during the 2018-2019 school year. Researchers queried and exported all running records through the app's management platform. Correlation analysis was performed on all CSPFT results and RH using Pearson correlation. It was found that the total number of kilometers run by the students had a significant negative correlation with their Vital Capacity (VC), Sitting Body Flexion (SBF), and Long Jump (LJ) ($r_{VC} = -.08, p_{VC} < 0.05$; $r_{SBF} = -.08, p_{SBF} < 0.05$; $r_{LJ} = -.09, p_{LJ} < 0.05$), and a significant positive correlation with their 50-Meter Running (50R) ($r_{50R} = .11, p_{50R} < 0.01$); the overall number of times students run had a significant positive correlation with their endurance performance (1000-meters running for boys and 800-meters running for girls, $r = .08, p < 0.05$); The average number of kilometers per run was significantly negatively related to the VC, SBF, and strength scores (pull-up for boys, girl sit-ups for girls) ($r_{VC} = -.17, p_{VC} < 0.01$; $r_{SBF} = -.14, p_{SBF} < 0.01$; $r_{strength} = -.33, p_{strength} < 0.01$), and showing a significant positive correlation with its 50R ($r_{50R} = .33, p_{50R} < 0.01$); there was no significant correlation between each CSPFT results and overall running time or average running time; meanwhile, there was no significant correlation between the other CSPFT results and RH results. This study supports that there is a positive correlation between distance run by college students and their speed, and a negative correlation with flexibility, strength, and VC. students with good endurance might prefer running, but not necessarily to long distance.

Keywords: running habits, physical fitness, college students