

Relationship between Heart Recovery Rate, Physical Activity Level, Body Mass Index and Sedentary Behavior among Undergraduates of Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University

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Abstract

With the digitalization of many aspects of the life, the average Physical Activity Level (PAL) is in decline. Sedentary Behavior (SB) is a rising risk factor for cardiovascular diseases. There are less evidences regarding the PAL among Asian undergraduates. A delay in Heart Recovery Rate (HRR) in 1 minute (HRR1min) indicates the prevalence of cardiovascular diseases. This study aimed to determine the relationship between HRR, PAL, Body Mass Index (BMI), and SB among undergraduates of Faculty of Allied Health Sciences. A descriptive cross-sectional study was carried out. HRR1min was measured after performing Modified Harvard Step Test. A Self-administrated Global Physical Activity Questionnaire was provided to assess the PAL and SB. The Chi-Square test was performed for data analysis. The sample size consisted of 252 participants (age range of 18-26). Results showed that the normal HRR 1min was 75.4% and 24.6% showed poor HRR1min and 11.5% of high PAL, 86.5% of moderate PAL, and 2% of low PAL among participants. The mean value for SB was 11.64 hours for males and 12.18 hours for females. A strong positive correlation was observed in between PAL and Gender ($p=0.049$). No significant correlation was observed in between HRR and BMI, HRR and PAL. In conclusion, PAL of an individual depends on gender. Moderate intensity activities are most common among undergraduates and most undergraduates follows a sedentary lifestyle. Therefore, self-awareness of BMI, PAL and SB are essential in preventing non-communicable diseases and to improving quality of life.

Keywords: *HRR, PAL, BMI, SB, Undergraduates*