

The Relationship between Physical Fitness and Academic Performance among University Students

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Abstract : The study was conducted to determine the relationship between physical fitness and academic performance among university students. A far-famed saying 'Sound mind in a sound body' referring to the potential quality of increased physical fitness in the intellectual development of individuals seems to be endorsed. There is a growing body of literature the impact of physical fitness on academic achievement, especially in elementary and middle-school aged children. Even though there are numerous positive effects related to being physically active and physical fitness, their effect on academic achievement is not very much clear for university students. The subjects for this study included 25 students (20 female and 5 male) enrolled in Yeditepe University, Physiotherapy and Rehabilitation Department of Health Science Faculty. All participants filled in a questionnaire about their socio-demographic status, general health status, and physical activity status. Health-related physical fitness testing, included several core components: 1) body composition evaluation (body mass index, waist-to-hip ratio), 2) cardiovascular endurance evaluation (queen's college step test), 3) muscle strength and endurance evaluation (sit-up test, push-up test), 4) flexibility evaluation (sit and reach test). Academic performance evaluation was based on student's Cumulative Grade Point Average (CGPA). The prevalence of the subjects participating physical activity was found to be 40% (n = 10). CGPA scores were significantly higher among students having regular physical activity when we compared the students having regular physical activities or not (respectively $2,71 \pm 0,46$, $3,02 \pm 0,28$ scores, $p = 0,076$). The result of the study also revealed that there is positive correlation relationship between sit-up, push up and academic performance points (CGPA) ($r = 0,43$, $p \leq 0,05$) and negative correlation relationship between cardiovascular endurance parameter (Queen's College Step Test) and academic performance points (CGPA) ($r = -0,47$, $p \leq 0,05$). In conclusion, the findings confirmed that physical fitness level was generally associated with academic performance in the study group. Cardiovascular endurance and muscle strength and endurance were associated with student's CGPA, whereas body composition and flexibility were unrelated to CGPA.

Keywords : academic performance, health-related physical fitness, physical activity, physical fitness testing

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