

# Physical activity and stress vulnerability in physiotherapy students

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## Background

International and national recommendations in Health, consider adopting an active lifestyle as fundamental. Due to the decrease in physical activity observed in students of higher education, it became fundamental to raise awareness and promote healthy behaviours. Physiotherapy students are future healthcare professionals who are experts in movement, with a primary role in health promotion. Physical activity has benefits in physical wellbeing, stress reduction, and academic performance.

## Objective

Characterize the physical activity level of first year physiotherapy students and its influence on stress vulnerability, as well as to analyse the evolution of physical exercise practice in the transition to higher education.

## Methods

Cross-sectional analytical study of 60 first year physiotherapy students from Escola Superior de Saúde, Instituto Politécnico do Porto (ESS-PP). The level of physical activity was evaluated through the International Physical Activity Questionnaires (IPAQ) and the vulnerability to stress with the Stress Vulnerability Assessment Scale (23QVS). The 23QVS is a self-assessment tool, consisting of 23 questions and allows assessing the vulnerability of an individual to stress. The higher the final score, the more vulnerable the individual is to

stress, considering that the value 43 is the value above which an individual is considered vulnerable to stress. The Qualtrics software was used to fill in the questionnaires and the SPSS program for data analysis, with significance of  $\alpha=0.05$ .

## Results

Forty percent (40%) of the students practiced physical exercise, 18.3% were considered insufficiently active, with significant differences between genders, with males being more active (61.5 vs. 14.9,  $p = 0.003$ ). (78.3% vs. 40.0%,  $p < 0,001$ ). It was verified that 40% of the individuals obtained a value of  $> 43$  in the 23 QVS, showing more vulnerability to stress, being the greater proportion among the feminine gender. Nevertheless, statistically significant differences were not identified between genders ( $p = 0.074$ ). Physical activity did not present a statistically significant relationship with stress vulnerability ( $p = 0.134$ ;  $rS = -0.195$ ).

## Conclusions

More than half of the students did not practice physical exercise and about a fifth were considered insufficiently active. The male gender had a higher level of physical activity. A large percentage of students showed excessive stress vulnerability. Starting higher education led to a decrease in the practice of physical exercise. There was no relationship between the level of physical activity and vulnerability to stress.

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## Keywords

Physical Activity, Health Promotion, Stress, Academic Success.

