

## BOOSTING STUDENT ENGAGEMENT IN UNIVERSITY PHYSICAL ACTIVITIES: AN EXPLORATORY STUDY

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**Abstract.** Physical activity is a critical component of a healthy lifestyle, significantly contributing to the prevention and management of chronic diseases, mental health support, and overall well-being. Despite its benefits, recent lifestyle changes in post-communist Romania have led to an alarming increase in overweight and obesity rates, especially among urban youth. This research focuses on the University of Bucharest (UniBuc) to explore the reasons behind students' low participation in university-organized physical activities. By employing a structured questionnaire distributed electronically, this study aims to collect comprehensive data on student demographics, participation levels, motivations, barriers, and suggestions for improvement. The quantitative analysis component of the study aims to identify participation trends and barriers, while qualitative insights will provide nuanced perspectives on students' experiences. The findings will inform targeted strategies to promote physical activity among students, contributing to their immediate and long-term health. Overall, this exploratory study seeks to lay the groundwork for future research on enhancing physical activity participation in academic settings, ultimately supporting the holistic development of young adults.

**Key words.** Sports, physical activity, exercise, health, mental health, depression, anxiety, youth, academia, overweight, obesity.

### Introduction

Physical activity is widely recognized as a key-element of a healthy lifestyle, contributing significantly to the prevention and management of various chronic diseases, supporting mental health, and the promotion of overall well-being of individuals. However, post-communist changes in nutrition and lifestyle (with its shift towards more sedentary jobs and activities) have contributed significantly to an excess weight epidemic affecting Romania over the past decades. Data shows that weight-related issues debut at young ages, as well as the prevalence of overweight (including obesity) in children, particularly in the urban area of Western Romania – where it was recorded at alarming levels, higher in boys and at the pre-puberty ages (Pop TL, 2021, p. 51).

These issues tend to continue into young adulthood and adulthood; establishing “physical activity habits during the young adult years are likely to be important influences on habitual physical activity during overall adult life and, consequently, have significant implications for long-term health outcomes”. (Leslie, Sparling, & Owen, 2001). This topic is insufficiently tackled at national level, specifically from an institutional perspective, despite the existence of a dedicated governmental agency\*\*.

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\*\* Agenția Națională pentru Sport – <https://sport.gov.ro/>



However, the lack of participation in sports and physical activities exhibited by young people is addressed in the academic environment, specifically in the University of Bucharest (UniBuc), which makes the subject of the present study. In spite of the well-documented benefits of physical activity, many students struggle to meet the recommended levels of physical activity due to a variety of barriers, including academic pressures, time constraints, lack of motivation, and limited access to appropriate facilities and programs. This research effort aims to lay the groundwork of an extended research effort centered on identifying the main reasons why young students (roughly aged 18–35) don't participate – or only participate sporadically, or only because of the mandatory component – in physical activities organized by the university they are enrolled in, and, in subsidiary, in physical activities overall.

### **Understanding the importance of physical activity for the body and the mind. The benefits of exercise in young adulthood.**

Depending on the scope, duration and intensity of the exercises, the human organism benefits greatly from regular physical activity. Studies have highlighted that regular physical activity, such as strength training, aerobics or walking, as well as flexibility, balance and aerobic training, or a combination of these exercises for 16 weeks to one year, is able to improve a series of relevant health-related parameters (Portugal et al., 2013, p. 4), including *neuroplasticity* some related to various mental health disorders such as depression or anxiety disorders – it reduces stress – mainly through the release of endorphins and reduction of cortisol, which is a stress hormone – and stimulates the overall mood regulation, through the release of neurotransmitters like serotonin and dopamine (Kandola et al., 2018, p. 22).

At brain activity level „*exercise is associated with the increased synthesis and release of both neurotransmitters and neurotrophic factors, and these increases may be associated with [adult] neurogenesis, angiogenesis and neuroplasticity*”. Physical activity stimulates the production of new neurons in the hippocampus, a region of the brain that is critical for learning and memory (Portugal et al., 2013, p. 1). It also plays a role in the prevention of neurodegenerative disorders – a 2021 neurological study calculated that about 3% of all dementia cases could be prevented by increasing levels of physical activity (Dominguez et al., 2021, p. 2).

The health benefits of physical activity depend on being active throughout the entire life span, but, for most people, research shows that physical activity declines strikingly with age, with most rapid declines in physical activity occurring during the adolescence and young adulthood years (Stephens, 2002). Moreover, physical activity has also been found to elevate mood and reduce symptoms of depression, anxiety, and stress. Exercise-induced release of endorphins, along with the modulation of neurotransmitters and inflammation, contributes to improved mental well-being.

### **The study. Methodology**

In order to identify the possible explanations behind students' lack of participation in physical activities organized by the University of Bucharest, a structured questionnaire was developed and will be administered via e-mail to all UniBuc students (from freshmen to seniors, regardless of their current participation in sports class, as they will be questioned about previous experience as well), aiming to ensure a representative sample, as well as the broad reach and convenience for respondents. The questionnaire was designed to gather comprehensive data – incorporating both quantitative and qualitative questions for a holistic image of the phenomenon – on various aspects influencing students' engagement in physical activities, including demographic information, current participation levels, motivations, barriers, and suggestions for improvement.

Quantitative data will provide measurable insights into participation rates and perceived barriers, while qualitative responses are expected to offer more nuanced perspectives on the personal experiences and recommendations, with the overarching objective to find reasons for the

lack of participation of students in sports activities and draw potential solutions to address these issues to the benefit of students' and their health. Data collected from the survey will be analyzed using various statistical methods to identify prevalent trends and correlations, while thematic analysis will be applied to the qualitative responses of the UniBuc students in order to extract common themes and insights.

### **Conclusion & future research directions**

For young people, particularly for young students who are navigating an essential stage of their psychosocial and professional development, engaging in regular physical activity provides immediate health benefits, but also for establish lifelong habits that contribute to long-term health outcomes. The complex demands associated with student life, along with the social, professional, developmental and emotional challenges of young adulthood, highlight the imperative need to encourage and facilitate an active lifestyle, to the largest possible extent, in line with individual needs and opportunities.

The proposed questionnaire is addressed to all UniBuc students, from the bachelor's and master's study programs and is being applied. After receiving the answers from the respondents, they will be analyzed and based on the obtained results, proposals and strategies will be formulated to improve the state of health by promoting physical activity among children, young people and adults.

Understanding the factors that influence students' engagement in physical activity will contribute significantly to the process of building the necessary conditions for their future participation, which represents the main point of this exploratory study, and, in line with its results, other potential research efforts focused on this pressing issue.

*Annex 1 – the Questionnaire ( will be applied via Google Form)*

#### **A. Demographics**

1. What is your age range?
  - a. 18-21 years old
  - b. 22-25 years old
  - c. 26-29 years old
  - d. 30+ years old
2. What is your gender?
  - a. Female
  - b. Male
  - c. Non-binary
  - d. Prefer not to say
3. What year of study are you in?
  - a. First year
  - b. Second year
  - c. Third year
  - d. Fourth-Sixth year
4. What is your area of study (*faculty, specialty*)?  
\_\_\_\_\_

#### **B. Participation in sports activities**

5. The sport you are/were enrolled in at the University (if applicable; check multiple options if you were enrolled in more than one):
  - a. Athletics
  - b. Self-defense
  - c. Basketball
  - d. Badminton

- e. Dancing (folklore/competitive)
  - f. Physical and methodical education (chess)
  - g. Fitness
  - h. Football
  - i. Aerobics
  - j. Medical gymnastics
  - k. Handball
  - l. Swimming
  - m. Martial arts
  - n. Table tennis
  - o. Tennis
  - p. Volleyball
6. How often do you attend Sports class at the University?
    - a. Never
    - b. Rarely (< 4-5 times per semester)
    - c. Occasionally (> 4-5 times per semester)
    - d. Regularly (> once every 1-2 weeks)
    - e. Often (> once per week)
  7. How often do you exercise in your personal time?
    - a. Never/ very rarely
    - b. Rarely (1-5 times per year)
    - c. Occasionally (1-5 times every few months)
    - d. Often (at least once a year)
    - e. Very often (at least once a week)
    - f. Daily
  8. What motivates you to attend Sports class at the University (*you can select multiple answers*)?
    - a. Improving my health / physical shape
    - b. Reducing stress
    - c. Socializing
    - d. My grade
    - e. I don't know/ NA

Please explain your answer: \_\_\_\_\_

9. Would you attend Sports class at the University if they were not mandatory?
  - a. Yes
  - b. No
  - c. I don't know/ NA

Please explain your answer: \_\_\_\_\_

**C. Your experience during Sports class**

10. How would you describe your experience during Sports class (rate it from 0 to 5, 0 corresponding to a very unpleasant experience and 5 corresponding to a very pleasant experience)?  
 Very unpleasant                                      0 0 0 0 0                                      Very pleasant
11. How would you describe your experience during Sports class (rate it from 0 to 5, 0 corresponding to a not useful experience and 5 corresponding to a very useful experience)?  
 Not useful    0 0 0 0 0    Very useful
12. How would you describe the equipment made available by the University for Sports classes (rate it from 0 to 5, 0 corresponding to unsatisfying and 5 corresponding to very satisfying)?  
 Unsatisfying    0 0 0 0 0    Very satisfying
13. What are the main reasons for your rare/ lack of attendance of Sports class (*if applicable*)?

- a. Schedule is too packed
  - b. Sports classes overlap with lectures/seminars
  - c. I am working/ I am involved in other activities (e.g. volunteer work, internships, etc.) which keep me from attending the Sports class
  - d. I don't like to exercise
  - e. I don't like to exercise at the University
  - f. I cannot participate in sports (due to medical or accessibility reasons), and the alternatives provided by the university do not meet my needs (if this is your answer, please mention in the space below how the University could provide the necessary conditions for you to participate in sports activities, e.g., access ramps, special equipment, suitable physical exercises/sports activities, etc.)
  - g. I can't afford to cover the expenses associated with my participation (e.g. buying individual sporting attire and equipment).
  - h. Another reason: \_\_\_\_\_
14. What could UniBuc do to encourage you to participate more frequently in sports classes (*you can select multiple answers*)
- a. Further diversifying the types of sports offered
  - b. Improvement of the schedule / better alignment with the schedule of lectures/seminars
  - c. Organization of more sports competitions within the faculty
  - d. Promotion of sports activities (offline/online)
  - e. Other ways: \_\_\_\_\_

### Authors' Contributions

All authors have equally contributed to this study.

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