

MAIN FACTORS THAT CONTRIBUTE TO THE REDUCTION OF PARTICIPATION IN SPORTS ACTIVITIES AMONG UNIVERSITY STUDENTS

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ABSTRACT. Introduction: In this article, our aim is to examine the main reasons that lead university students to practice less and less physical sports activities. **Objective:** Identifying the differences that may exist between students who were enrolled at the Technical University of Cluj-Napoca, in the academic year 2011-2012, and those who were enrolled in the academic year 2019-2020, regarding the reasons that determine them to reduce the time allocated to physical sports activities. **Methods:** To find out why the level of participation of university students in various physical sport activities is very low, and tends to decrease from year to year, we conducted two studies, the first one in the 2011-2012 academic year (n=880 participants), and the second one, in the academic year 2019-2020 (n=594 participants), and we compared the results obtained. **Results:** The results of the study show the reasons for today's short time allocated by students to physical activities and the reasons why they are too busy to play sports. The findings indicate that the main reason why students of the Technical University of Cluj-Napoca practice less and less physical sports activities is because they are busier. The overloaded program from university is the main cause why some students have reduced the time allocated to sports activities. Other important factors are the lack of energy and the lack of sport facilities. **Conclusions:** Increasing educational requirements and reduced leisure time, justify a decrease in students' interest in participating in extracurricular sports activities. To increase the motivation and future sport adherence of students, it would be necessary for universities and local public authorities to provide a motivational climate for practicing physical activities and sport.

Key words: *physical activity, sport, student population, free time, motivation.*

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REZUMAT. Factorii principali care contribuie la reducerea participării la activități sportive în rândul studenților. Introducere: Scopul acestui articol este de a examina principalele motive care îi determină pe studenți să practice din ce în ce mai puține activități fizice sportive. **Obiective:** Identificarea diferențelor care pot exista între studenții care au fost înscriși la Universitatea Tehnică din Cluj-Napoca, în anul universitar 2011-2012, și cei înscriși în anul universitar 2019-2020, cu privire la motivele care îi determină să reducă timpul alocat activităților fizice sportive. **Metode:** Pentru a afla de ce nivelul participării studenților la diferite activități fizice sportive este foarte scăzut, și tinde să scadă de la an la an, am efectuat două studii, primul în anul universitar 2011-2012 (n = 880 participanți), și al doilea, în anul universitar 2019-2020 (n = 594 participanți), și am comparat rezultatele obținute. **Rezultate:** Rezultatele studiului arată motivele pentru care studenții alocă puțin timp activităților fizice și de ce sunt prea ocupați pentru a face sport. Principalul motiv pentru care studenții Universității Tehnice din Cluj-Napoca practică din ce în ce mai puține activități sportive este faptul că sunt mai ocupați și au mai puțin timp liber. Programul încărcat de la universitate este principala cauză pentru care unii dintre studenți au redus timpul alocat activităților sportive. Alți factori importanți sunt lipsa de energie și lipsa facilităților pentru practicarea sportului. **Concluzii:** Creșterea cerințelor educaționale și reducerea timpului liber, justifică scăderea interesului studenților de a participa la activități sportive extrașcolare. Pentru a spori motivația și aderarea sportivă viitoare a studenților, ar fi necesar ca universitățile și autoritățile publice locale să ofere un climat motivațional pentru practicarea activităților fizice și a sportului.

Cuvinte cheie: *activitate fizică, sport, populație studentescă, timp liber, motivație*

INTRODUCTION

The present research starts from statistical data made public more and more frequently regarding sedentary life (Unick et al., 2017; WHO, 2018) and weight gain among young people (Donnelly et al., 2009; Booth et al., 2017; Pinto et al., 2017).

Despite the health benefits (Reiner et al., 2013; McKinney et al., 2016), personal development (Fraser-Thomas & Strachan, 2015) and social effects (Eime et al., 2013; Di Bartolomeo & Papa, 2019) of practicing physical activities and sports, many young people choose not to be physically active, citing lack of time, lack of physical energy, lack of interest and lack of motivation as the main reasons for physical inactivity (Weinberg & Gould, 2011; Fox et al., 2012).

The level of involvement in various physical activities and sports is influenced by several factors, such as: age, sex and health, autonomy, family support, access to sport facilities, intention to participate and previous involvement in sports or exercise programs (Bauman et al., 2012).

According to Papaioannou et al. 2020, a particularly important role in the behavior of participating in sports activities is played by personal factors (such as time, self-efficacy and perceived competence), social factors (such as parents, teachers and support from friends) and environmental factors (such as sports venues and school environment).

This study is part of a wider research regarding the student's motivation from the Technical University of Cluj-Napoca to practice physical activities and sports.

The results of the study show the reasons for today's short time allocated by students to these activities and the reasons why they are too busy to play sports.

MATERIAL AND METHODS

The purpose of the research:

Analysis of the reasons that determine the students enrolled at the Technical University of Cluj-Napoca to practice less often physical sports activities.

Hypotheses:

- the existence of reasons that can influence students, in terms of the frequency with which they practice physical sports activities, causes them to reduce the time allocated to these activities;
- the existence of factors that can make students consider that they are busier, influences their decision to practice such activities less often;
- there are significant differences between the students who attended the courses of the Technical University of Cluj-Napoca in the period 2011-2012, and those who attended the university courses in the period 2019-2020, in terms of the reasons why they reduced the frequency with which they practice sports activities.

Objectives:

- identifying the main reasons why university students reduce the time allocated for practicing sports activities;

- identifying the main reasons why students do not play sports with the same frequency as in the past;
- identifying the differences that may exist between students who were enrolled at the Technical University of Cluj-Napoca, in the academic year 2011-2012, and those who were enrolled in the academic year 2019-2020, regarding the reasons that determine them to reduce the time allocated to physical sports activities.

Methods, techniques and research tools

In the present research we used the method of quantitative research and the technique of administering the questionnaires by sociological survey.

Research tools: The questionnaire used as a research tool has been taken and adapted from that used in the study "Sports, exercise and physical activity: public participation, barriers and attitudes" Lorraine Murray, Ipsos Mori, Scottish Executive Social Research, October 2006.

The sample investigated:

The research conducted in 2012 was attended by 880 students (601 male students and 279 female students), enrolled in the academic year 2011-2012, at one of the following faculties of the Technical University of Cluj-Napoca: Architecture and Urban Planning; Automation and Computer Science; Civil Engineering; Electronics, Telecommunications and Information Technology; Materials and Environmental Engineering.

The research conducted in 2020 was attended by 594 students (330 male students and 264 female students), enrolled in the academic year 2019-2020, at one of the following faculties of the Technical University of Cluj-Napoca: Architecture and Urban Planning; Automation and Computer Science; Civil Engineering; Electronics, Telecommunications and Information Technology; Materials and Environmental Engineering; Electrical Engineering; Automotive, Mechatronics and Mechanical Engineering; Materials and Environmental Engineering; Machine Building, respectively, Faculty of Building Services Engineering.

Sampling was done at these faculties to have in this study both students whose curriculum is very busy and students whose curriculum is less busy. The sampling in 2012 was performed using the nominal lists of the catalogs and the selection was made randomly, by the 10-step method, choosing each tenth student from the nominal list and ensuring that the proportion of subjects in the sample by gender, corresponds to the proportion by sex of students enrolled at each faculty, specialization, division, year of study. In 2020, for increasing the participation rate in the study, we asked the students to send the link to the questionnaire to their colleagues, together with the application form.

Research population

It is represented by all students who attended full-time courses, at one of the faculties of the Technical University of Cluj-Napoca, in the academic year 2011-2012, respectively 2019-2020, regardless of the year of study, age, department and specialization.

Both studies were conducted only among students attending faculties in Cluj-Napoca University Center. Students from the Baia Mare University Center and those from the extensions in the cities of Alba-Iulia, Bistrița, Satu-Mare and Zalău were not included in this study.

RESULTS

After collecting the answers of our students, we proceeded to the interpretation of the data, which was done using the SPSS program. We considered that the following associations may be relevant for the present study:

Table 1. The significance of the statistical determinants of logistic regression on the probability that students participated more frequently in sports physical activities in the past

	2012	2020
Nagelkerke R Square	0.943	0.511

Table 2. Logistic regression results on the determinants of the statistical probability that students participated more frequently in sports activities in the past

Dependent variable	2012		2020	
	Sig.	Exp(B)	Sig.	Exp(B)
Feel busier	0.000	2700.575	0.000	15.012
Less sports facilities after high school graduation	0.000	655.200	0.000	0.330
Less sports facilities after relocation	0.000	653.719	0.078	1.863
Health reasons	0.000	744.152	0.751	0.872
Friends no longer practice sports activities	0.000	93.977	0.206	1.911
No longer like to practice a sport	0.000	93.106	0.005	0.061
Too much cost	0.994	1240210352.276	0.018	4.586
Halls/clubs have too many participants	0.997	1309775276.086	0.144	3.388
Too much pressure to achieve performance	0.997	11520239324.55	0.427	0.578
Lack of energy	0.994	2194842608.213	0.000	10.379
Constant	0.000	0.022	0.000	0.365

The results of the logistic regression (statistical modeling of the probability that students have reduced the time allocated to physical sports) indicate that, after controlling: the possibility for students to feel busier now, reducing facilities for playing sports after left high school, reducing facilities for playing sports after relocation, the occurrence of health reasons, the possibility that their friends no longer practice physical sports, the possibility that students no longer like playing a sport, the probability that playing a sport will involve too high costs, the possibility that the halls/clubs have too many participants, the possibility that there is too much pressure to achieve performance, lack of energy, the most important factor and the one that has an associated significance accepted in each of the years studied is the possibility that students feel more busy currently, because $\exp(b) = 2700.575$ among students surveyed in 2012 and because $\exp(b) = 15.012$ among those surveyed in 2020. Also, in the academic year 2012, most of the measured variables prove to be predictors that can influence students' decisions in this regard:

- reduction of sports facilities after graduation from high school (because $\exp(b) = 655.200$);
- reduction of sports facilities after the change of address (because $\exp(b) = 653.719$);
- the possibility that their friends no longer practice physical sports activities (because $\exp(b) = 93.977$);
- the possibility that students no longer like to practice a sport (because $\exp(b) = 93.106$);
- the occurrence of health reasons (because $\exp(b) = 744.152$);

In 2020, in addition to the predictor indicating the extent to which students feel busy, another important predictor proves to be lack of energy (because $\exp(b) = 10.379$).

Table 3. Significance of logistic regression regarding the statistical determinants of the probability that students will have reasons to reduce the frequency with which they currently engage in physical sports activities

	2012	2020
Nagelkerke R Square	0.455	0.225

Table 4. The results of the logistic regression regarding the statistical determinants of the probability that the students have reasons to reduce the frequency with which they currently engage in physical sports activities

Dependent variable	2012		2020	
	Sig.	Exp(B)	Sig.	Exp(B)
School	0.000	5.152	0.000	16.930
Workplace	0.896	0.949	0.997	172491990.990
Voluntary work	0.426	0.702	0.998	76074988.657
Family life	0.330	1.672	0.761	0.426
Social life (parties, meetings, going out)	0.007	2.381	0.997	76515987.614
Other interests, hobbies	0.086	1.648	0.997	30465345.268
Constant	0.000	0.702	0.209	0.861

The results of the logistic regression (statistical modeling of the probability that students are currently too busy to practice physical sports activities) indicate that, after controlling for possible causes, such as: school, workplace, volunteer work, family life, social life (parties, meetings, outings in the city) and other interests (hobbies), the probability that those who currently have reduced the frequency with which they practice physical sports activities have done so due to school is 5 times higher among students surveyed in 2012 (because $\exp(b) = 5.152$) and almost 17 times higher among students surveyed in 2020 (because $\exp(b) = 16.930$).

CONCLUSIONS

The students of the Technical University of Cluj-Napoca declare that they rarely practice physical sports activities at present, because they are busier. Among the reasons why they feel this way, the school occupies the most important place. The overloaded program is the main cause why most of the students have reduced the time allocated to sports activities.

This aspect is especially relevant because, at the same time, among the students surveyed in 2020, an important factor proves to be the lack of energy.

The lowering interest for sport activities is indeed justified by the reduction of leisure time and the increasing educational requirements.

Also, in 2020, the lack of facilities due to the change of residence and after high school graduation, seem to be no longer important factors for the frequency with which students currently engage in physical sports activities. This is due to the increasing number of spaces for sports and leisure activities, investments made by local authorities in the creation of sports facilities, parks, sport grounds and bicycle lanes.

The offer of sports activities where students can participate voluntarily, for pleasure, for fun and for socialization is quite limited at the Technical University of Cluj-Napoca. A more flexible schedule, the organization of sports competitions, free access to sports facilities, will increase the attractiveness and participation. The physical education curriculum should also be adapted to students' favorite sports and physical activities. According to the students, the offer of extracurricular sports activities is not very attractive. Insufficient number of physical education classes, overloaded curriculum and limited access to sports centers reduce the number of students who practice sports.

REFERENCES

1. Bauman, A.E., Reis, R.S., Sallis, J.F., Wells, J.C., Loos, R.J.F., Martin, B.W., for the Lancet Physical Activity Series Working Group. (2012). *Correlates of physical activity: why are some people physically active and others not?* Lancet, 380, 258-271. DOI: 10.1016/S0140-6736(12)60735-1
2. Booth, F.W., Roberts, C.K., Thyfault, J.P., Ruesegger, G.N. & Toedebusch, R.G. (2017). *Role of inactivity in chronic diseases: evolutionary insight and pathophysiological mechanisms.* Physiol. Rev. 97, 1351–1402
<https://doi.org/10.1152/physrev.00019.2016>
3. Di Bartolomeo, G., & Papa, S. (2019). The Effects of Physical Activity on Social Interactions: The Case of Trust and Trustworthiness. *Journal of Sports Economics*, 20 (1), 50–71. <https://doi.org/10.1177/1527002517717299>
4. Donnelly J.E., Blair S.N., Jakicic J.M., Manore M.M., Rankin J.W., Smith B.K. (2009). *American College of Sports Medicine Position Stand. Appropriate physical activity intervention strategies for weight loss and prevention of weight regain for adults.* Medicine and Science in Sports and Exercise. 41(2):459–471. DOI: 10.1249/MSS.0b013e3181949333
5. Eime, R.M., Young, J.A., Harvey, J.T. et al. (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport. *Int J Behav Nutr Phys Act* 10, 98 (2013). <https://doi.org/10.1186/1479-5868-10-98>

6. Fraser-Thomas J., Strachan L. (2015). *Personal development and performance?* In: Baker J., Safai P., Fraser-Thomas J., editors. *Health and Elite Sport: Is High Performance Sport a Healthy Pursuit?* Taylor & Francis Group; London, UK: 2015. Routledge Research in Sport, Culture and Society
7. Fox, A.M., Mann, D.M., Ramos, M.A., Kleinman, L.C., & Horowitz, C.R. (2012). Barriers to physical activity in East Harlem, New York. *Journal of Obesity*, 2012, 719140. <https://doi.org/10.1155/2012/719140>
8. McKinney J., Lithwick D.J., Morrison B.N., Nazzari H., Isserow S.H., Heilbron B., Krahn A.D. (2016). *The health benefits of physical activity and cardiorespiratory fitness*. BCMJ, vol. 58 , No. 3 , April 2016 , Pages 131-137 Clinical Articles
9. Murray L. (2006). *Sport, exercise and physical activity: public participation, barriers and attitudes*. Edinburgh: Information and Analytical Services, Division, Scottish Executive Education Department. <http://www.scotland.gov.uk/Resource/Doc/932/0041468.pdf>.
10. Papaioannou, A., Carraro, A., Sarrazin, P., Demirhan, G., Ramis, Y., Duda, J., Scheuer, C., Gortsila, E., Özduvak, H., Holzweg, M., Eid, L., Kerreres, D., Krommidas, C. (2020). Identifying and Motivating youth who mostly need physical activity: IMPACT project. Brussels, European Commission. www.impactpe.eu
11. Pinto, A.J., Roschel, H., de Sá Pinto, A.L., et al. (2017). *Physical inactivity and sedentary behavior: Overlooked risk factors in autoimmune rheumatic diseases?* *Autoimmunity Reviews*. 2017 Jul; 16(7):667-674. <https://doi.org/10.1016/j.autrev.2017.05.001>
12. Reiner, M., Niermann, C., Jekauc, D. et al. (2013). *Long-term health benefits of physical activity – a systematic review of longitudinal studies*. *BMC Public Health* 13, 813. <https://doi.org/10.1186/1471-2458-13-813>
13. Unick, J.L., Lang, W., Tate, D.F., Bond, D.S., Espeland, M.A., & Wing, R.R. (2017). *Objective Estimates of Physical Activity and Sedentary Time among Young Adults*. *Journal of obesity*, 2017, 9257564. <https://doi.org/10.1155/2017/9257564>
14. Weinberg, R.S., Gould, D. (2011). *Foundations of Sport and Exercise Psychology*, 5th. Ed., Champaign, IL: Human Kinetic
15. World Health Organization (2018). *Global action plan on physical activity 2018–2030: More active people for a healthier world*. <https://www.who.int/news-room/fact-sheet/detail/physical-activity>

