

Analysis of University Students' Perspectives on Physical Activity and Mandatory Physical Education

Milan Šipl, Emanuel Hurych

Masaryk University, Faculty of Sports Studies, Brno, Czech Republic

ABSTRACT

The decline in physical activity levels during the transition from high school to college is evident, despite the known impact of youth and adolescent physical activity on later life. Observable trends reveal a decline in enthusiasm for sports activities and a notable decrease in motivation for engaging in physical activity. The college environment plays a pivotal role in shaping students' engagement with physical activity, presenting an opportunity to significantly enhance their quality of life. This study's primary objective is to analyse university students' attitudes toward physical activity and assess their satisfaction with compulsory physical education at Masaryk University, comparing results spanning nearly two decades. In adherence to contemporary research methodologies, a questionnaire survey combining standard quantitative and qualitative analysis procedures was conducted. The survey questions focused on examining various facets of physical activity, including volume, intensity, sports preferences, and attitudes toward mandatory physical education at Masaryk University in Brno. A total of 1,293 respondents (422 men and 871 women) with an average age of 20.7 years participated in the study. The findings underscore a notable inclination among almost 73% of students to welcome an extension of compulsory physical education to 2 or more semesters (currently set at 2 semesters at MU). Moreover, over 75% of students express contentment with the spectrum of mandatory sports activities offered in physical education. The study reveals a growing interest among students in individual physical activities and a burgeoning enthusiasm for unorganized sports. These outcomes furnish valuable insights into students' perceptions regarding the organization of physical and sports education activities within university settings.

Keywords: Physical activity; university students; motivation; mandatory physical education, attitude

INTRODUCTION

Regular physical activity (PA) undoubtedly exerts a substantial influence on human health, providing significant preventive measures against civilization diseases such as noninsulin-dependent diabetes, coronary heart disease, breast and colon cancer, osteoporosis, and depression. It also yields numerous physical, mental, and social benefits, a fact supported by various authors (Kučera et al., 2011; Schaal et al., 2014; Sigmundová et al., 2011). PA facilitates engagement across different age and social groups, fostering a shared joy of movement and the enjoyment of positive experiences. It aids in surpassing personal limits, thereby enhancing an individual's self-confidence. Those who regularly engage in physical activity exhibit a lower susceptibility to depression and demonstrate better control over their lives. Physically active individuals are more adept at adopting healthy behavioral habits (Richmond et al., 2014). Current studies from both Czech and international sources focus significantly on attitudes toward PA, especially among children (Muthuri et al., 2014; Carson, Rosu, & Janssen, 2014). However, there is a limited scope of studies conducted on university students, despite the fact that students often encounter challenges during the transition from secondary school to university. This period, crucial for shaping lifestyle and completing development, represents one of the most pivotal stages not only in education but also in terms of radical changes in physical activity (Valjent, 2010). Waldron et al. (2010), Frömel et al. (2007), and Sallis et al. (2016) illustrate in their study the low levels of physical activity and poor eating habits among students upon entering university. Although physical activity during youth and adolescence significantly influences PA in later life, nearly 40% of university students do not engage in sports or lack motivation for physical activity, dedicating minimal time to sports. These outcomes stem from the dynamic changes experienced by students, notably the increase in study hours, augmented responsibilities, and often, elevated stress levels. A frequent change in residence occurs for most students, necessitating adaptation to new conditions and opportunities in the given location.

Consequently, universities wield a significant influence on the quality of life among university students through their institutional, personnel, and material conditions, establishing a lasting connection to sports or physical activity, as affirmed by authors Svobodová (2009), Senlin et al. (2014), and Gajdošík (2012). A student content with the array of physical activities offered as part of their studies tends to foster a positive disposition towards sports, markedly enhancing their life quality. The university's offerings should therefore perpetually adapt to students' present needs, considering both focus and accessibility. Valjent (2010) identifies fitness and swimming as the most favored activities, underscoring a wane in interest in sports games like soccer, floorball, volleyball, basketball, hockey, and softball. Each college enjoys autonomy in organizing physical education, resulting in diverse approaches to its organization and offerings. Notably, Masaryk University in Brno stands as one of the few Czech higher education institutions mandating physical education since its inception in 1919. Sports have been integral to the university environment for over a century, and compulsory physical education has consistently received unique promotion throughout the university's existence, persisting even after 1989, when most Czech universities abolished it. Presently, this obligation faces a complex re-introduction or complete neglect at many

universities. At Masaryk University, current requirements entail students completing physical education for 2 credits (1 credit per subject) from a selection of over 85 subjects, available in full-time or block formats. Therefore, this study aims to analyse the prevailing attitudes of Masaryk University students towards physical activity, focusing on sports preferences and the options for fulfilling compulsory physical education.

PROBLEM

A key question related to the objectives of our study is to recapitulate the benefits of physical activity, both in general and with respect to the age group of university students studied. Based on studies in the philosophy of sport, we consider that, although physical health benefits are most strongly emphasized in general, other dimensions of health - social and psychological (Simons & Bird, 2023; Truong et al., 2020) as well as spiritual (Welch et al., 2021) – are also very important aspects of active exercise. In relation to exercise, the whole complex of dimensions referred to as well-being provides a strong argumentative platform on which the need for exercise can be clearly justified. There is no doubt that this is the type of benefit that most people understand.

However, in the context of the philosophy of sport, we would be committing a form of reductionism if we were to associate the benefits of physical activity only with health benefits, however broadly understood. Indeed, the benefits of physical activity also extend into areas that are no longer directly related to health issues. In philosophical perception, these include, for example, the ontological domain (Breivik, 2020; Gamache, 2020) and the ethical domain (Mareš, 2023; Serrano-Durá et al., 2021).

In a holistic view, the benefits of physical activity can be divided into those that are objectively measurable and those that are subjectively perceived. The measurable ones include, for example, certain selected attributes of physical health, which modern medicine can describe and evaluate quite accurately. A plethora of studies based on this reflection have already been published, some of which we mentioned in the very beginning of our text. However, what should not escape our attention are the benefits subjectively perceived. Particularly at a time when, under the influence of modern technologies and the increasing digitalization of society, we are often forced to perform a large number of routine and mechanically performed operations, the subjective individualized perception of the world represents a form of defense for the cyborgization of our lives. In the field of sport and exercise, the whole problem is often compounded by the very nature of sports training, in which routine and stereotypical activities are sometimes unavoidable (Roe, 2021).

The subjectively perceived benefits of exercise are largely related to the expectations we place on engaging in the activity (St Quinton & Brunton, 2020). Expectations represent a very colorful space and their individualization does not allow for any form of categorization or structuring. However, there is a very strong link of expectations to primary motivation, which can already be structured. The most commonly encountered is the basic division between extrinsic and intrinsic motivation (Morris et al., 2022; Rosario, 2023), a division based mainly on psychological discourse.

A somewhat different perspective on the nature of motives for undertaking physical activity can be provided by philosophical discourse. Hurych (2019) mentions five main reasons why people

typically engage in physical activity. The first (and often highly emphasized) is the competitive motive, realized in the sphere of competitive sport at different levels (elite, performance and recreational). This motive is saturated by two factors in particular. One is rivalry and the other is perfectionism (Lipiec, 1999). The second important motive is (as we have already mentioned in this text) the health motive, in which movement is the path to health and good fitness. The third motive is the lifestyle of the individual. Although this motive cannot be completely separated from the previous two, as it often intersects with them, it is undoubtedly a separate element that contains a strong social motive linked to the need to share time and space with friends and colleagues. Nor can we forget the fourth motive (which until recently was an absolutely key element for movement activities). This is movement linked to work or purposeful activity (natural forms of movement). The fifth motive is then the experience that sport brings us. In the first decade of our century, in kinanthropology, experience was often contrasted with performance (Jackson et al., 2001) and the underlying motivation for exercise was thus dichotomized into the theme of performance versus experience. Today, this view can be seen as inherently too simplistic and reductive. However, experience is a powerful motive in movement activities and is often emphasized in competitive sport. Hurych (2019), however, raises the question for other possible reasons for active movement. He mentions the long-term representation of movement in human life, but this time not as a lifestyle element linked to social interactions and sharing time with other people, but as a spiritual element permeating deeper spheres of personality. It is related to the inner integrity of the person, and also includes social interactions. However, these are manifested not in a first-order imitation (in the sense of - I play golf because it is fashionable in our company), but in a more long-term context. Returning back to psychological discourse, this is a move away from extrinsic motivation towards its intrinsic form.

Given the benefits of establishing a long-term and existential relationship with physical activity, it seems beneficial to use elements of extrinsic motivation over some time so that by anchoring it over time, motivation becomes more and more intrinsic in nature.

The period of university studies is a good time to build these anchors. It is, firstly, a time when students are reaching physical maturity so that sporting performance is well within the reach of many of them due to natural ontogenetic development. In addition, they are often beginning to establish a new rhythm in their lives, becoming independent and breaking free from parental influence.

From this perspective, the results of our study are quite optimistic. We would like to interpret them in the sense that a system that promotes active movement and that specifically applies physical activities to the daily routine of university students has non-negligible benefits for them. In the case of our selected sample, this system meets with positive acceptance from students. It means that we are well placed to ensure that extrinsic incentives are converted into elements of intrinsic motivation for a significant number of respondents within a reasonable period of time. We can see here the potential to stimulate respondents for the next following life stages, when physical activity may no longer be obvious or easy for them.

METHODS

The primary objective of this study is to analyse the current attitudes of Masaryk University students towards physical activity and mandatory physical education, accompanied by an exploration of trends spanning from 2005 to 2023.

For the empirical segment of this research, a questionnaire survey was devised. Its purpose was to examine physical activity in terms of volume, intensity, sports preferences, and attitudes regarding the compulsory physical education curriculum at Masaryk University in Brno. Following the prevailing methodological standards in research, conventional procedures for quantitative analysis were merged with qualitative case comparisons.

Subjects

A total of 1,293 respondents took part in the survey, comprising 422 men and 871 women, with an average age of 20.7 years. Among the respondents, 50% were enrolled in their 1st year, 30% in their 2nd year, while only 14% were in their 3rd year of study. The remaining 6% were in their 4th year or beyond. Participants represented 9 faculties (Figure 1), with the highest proportion hailing from the Faculty of Arts (21%) and the Faculty of Science (16%). The Faculty of Pharmacy and Economics and Administration had the fewest respondents, accounting for 3% and 7%, respectively.

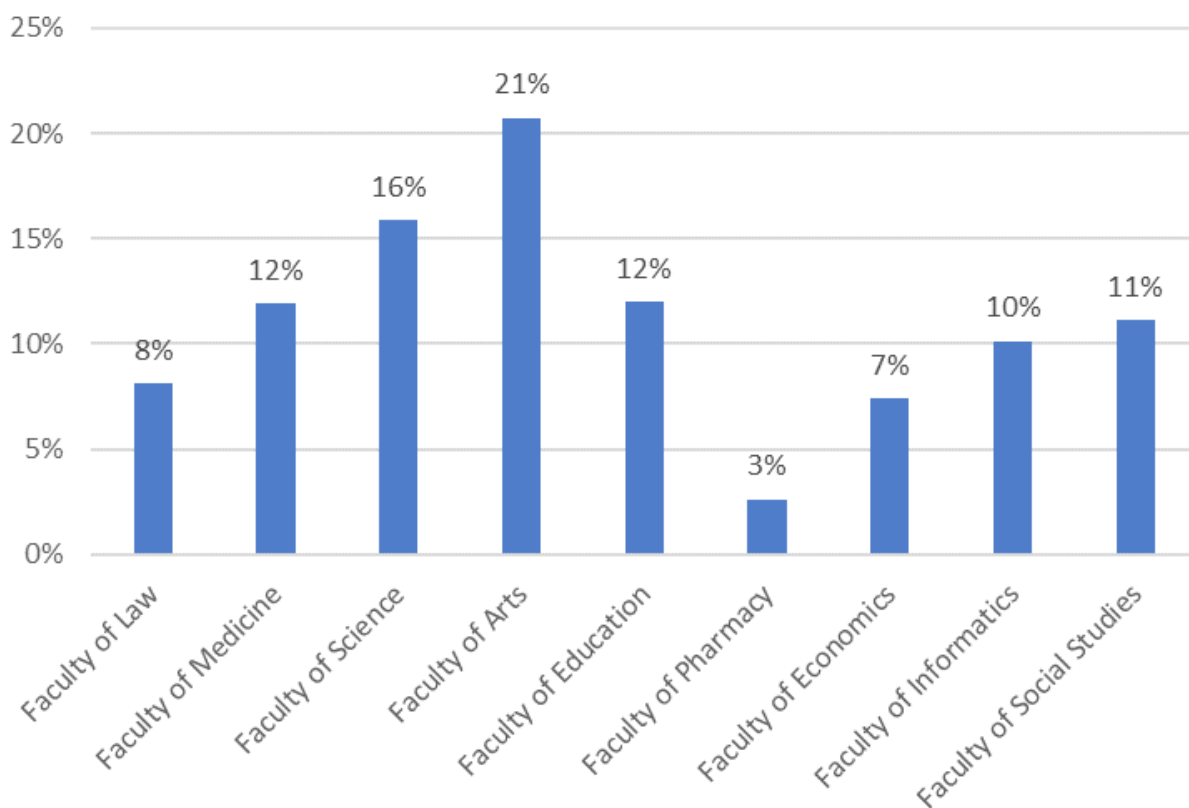


Figure 1. The distribution of respondents across individual faculties of Masaryk University

The survey was conducted during the spring semester of 2023, nearly at the conclusion of the semester's classes, spanning from May 1st to May 31st, 2023. Participants were informed about the research objectives and subsequently requested to sign informed consent forms. All participants were assured of the anonymity of their responses. The research was voluntary, without any financial contributions, and adhered to the valid code of ethics and legal regulations of the Czech Republic. Participants had the freedom to withdraw from the research at any time. The questionnaire survey was assessed using descriptive statistics.

Questionnaire survey

The questionnaire survey was diligently crafted in accordance with Lawsh's methodology (1975), drawing from extensive literature review and consultations with sociological experts. Its primary objective was to analyse physical activity, encompassing volume, intensity, sports preferences, and attitudes toward the mandatory physical education curriculum at Masaryk University in Brno.

Most full-time students at Masaryk University (with exceptions including students of kindergarten teaching at the Faculty of Education, teaching for the 1st grade of primary schools, and the Medical Rescue and Physiotherapy study programs at the Faculty of Medicine, along with students from Faculty of Sport Studies) are obligated, during their bachelor's or extended Master's programs, to fulfil the criteria for obtaining two credits (1 credit = 1 subject) from a pool of over 85 sports/physical education subjects. Notably, Masaryk University stands as a distinctive higher education institution with such an obligation for physical education. Students can fulfil this requirement through traditional face-to-face instruction or through block teaching, often in course formats, available in any semester of their study. Every semester, almost 4,500 students across 270 seminar groups participate in face-to-face physical education sessions.

Consequently, the questionnaire was structured into three principal sections, encompassing both open-ended and closed-ended queries. The introductory segment focused on gathering personal characteristics of the respondents. The subsequent section delved into physical activity and preferences, primarily emphasizing quantitative measures such as volume and intensity. Finally, the concluding part centred on the attitudes of university students regarding the mandatory inclusion of physical education within their studies at Masaryk University.

RESULTS

1. Analysis of Physical Activity and Sports Preferences

Figure 2 illustrates that 9 % (n=119) of respondents reported no engagement in physical activity. Among respondents, 57 % (n=740) engage in sports 1-2 times a week, while 27 % (n=345) participate 3-4 times a week, and 7 % (n=89) engage in sports 5 times or more weekly. Notably, 34 % of respondents engage in sports at least thrice a week, as depicted in the graph.

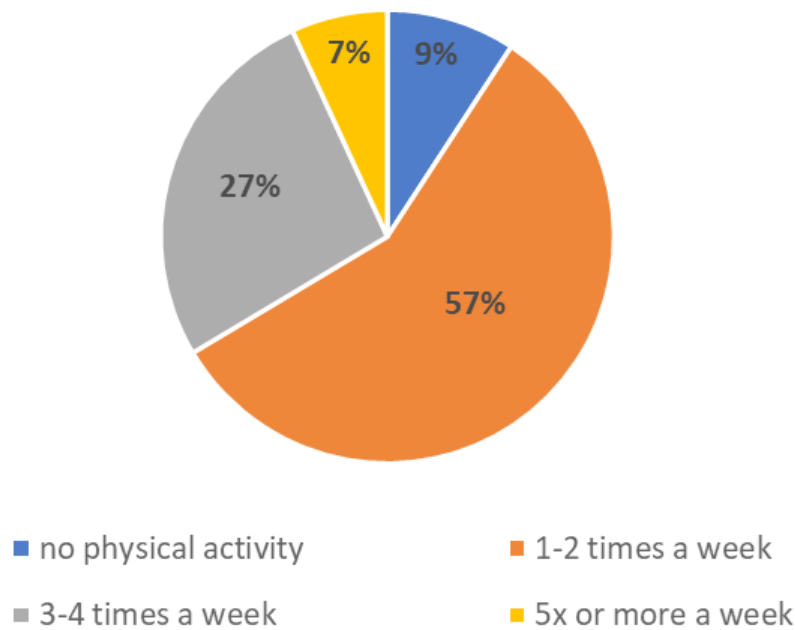


Figure 2. What is the frequency of your physical activity on average (minimum 45 minutes)?

Furthermore, it was observed that 51 % of respondents engage in unorganized sports activities outside institutional settings. The most favoured physical activities among Masaryk University students include running, cycling, swimming, hiking, yoga, weight training, skiing, workouts, dancing, and badminton, in a descending order of preference. The preference for individual physical activities significantly outweighs collective activities, with a ratio of 3:1, as indicated by the interviewees.

2. University Students' Attitudes Toward Compulsory Physical Education

Comparative analysis in Figure 3 reveals a relatively stable positive attitude among students towards compulsory physical education at Masaryk University, notwithstanding a slight decline. In 2023, student satisfaction with compulsory physical education decreased marginally from 97% in 2005 to 92% in 2023, which may be attributed to various factors to be further examined in the discussions.

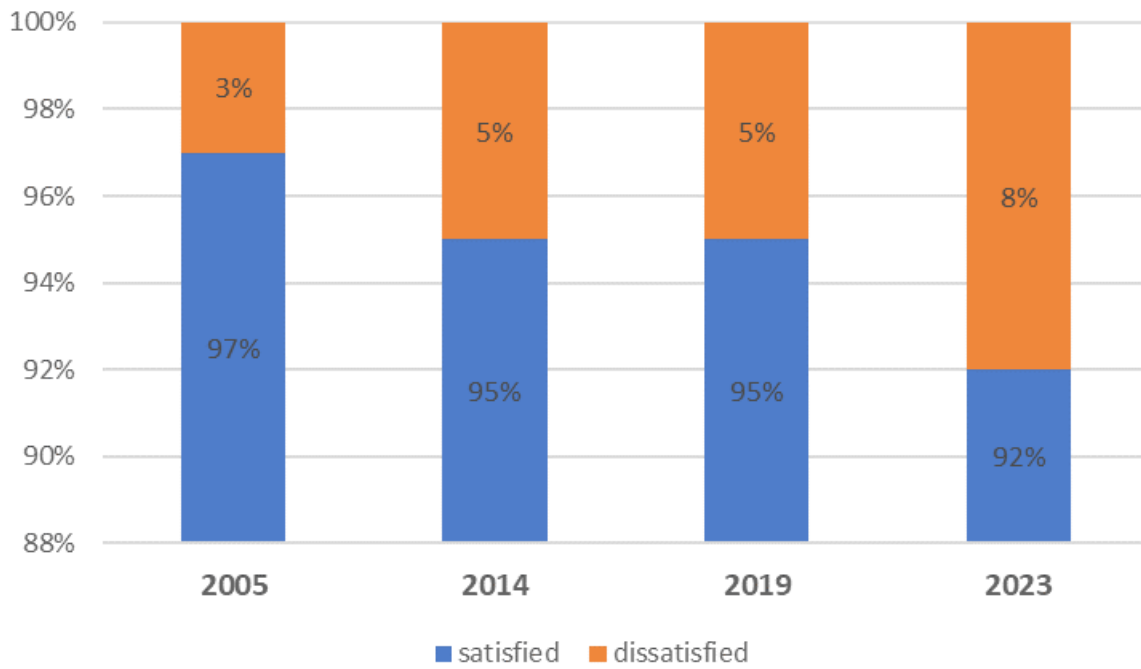


Figure 3. Satisfaction with the offer of sports/ physical activities in mandatory Physical education

Regarding overall satisfaction with completed compulsory physical education, measured on a scale from 1 to 5 (1 being the lowest and 5 being the highest), a significant majority of respondents, totalling 88% rated it as 4 (n=258) or 5 (n=879). A mere 4% (n=51) of respondents rated it 1 or 2 on the scale.

Assessing satisfaction with the approach of teachers in completed compulsory physical education, measured on a scale from 1 to 5 (1 being the lowest and 5 being the highest), 91% of respondents rated it as 4 (n=221) or 5 (n= 955). Only 3% (n=37) of respondents rated it as 1 or 2 (Figure 4).

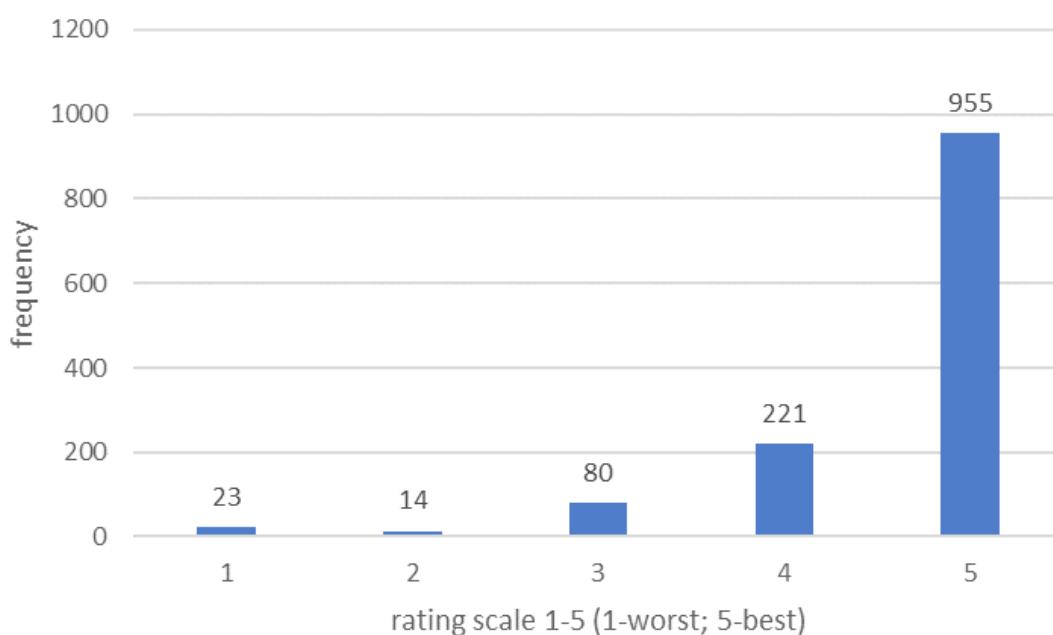


Figure 4. Evaluation of satisfaction regarding the teacher's approach in mandatory Physical education

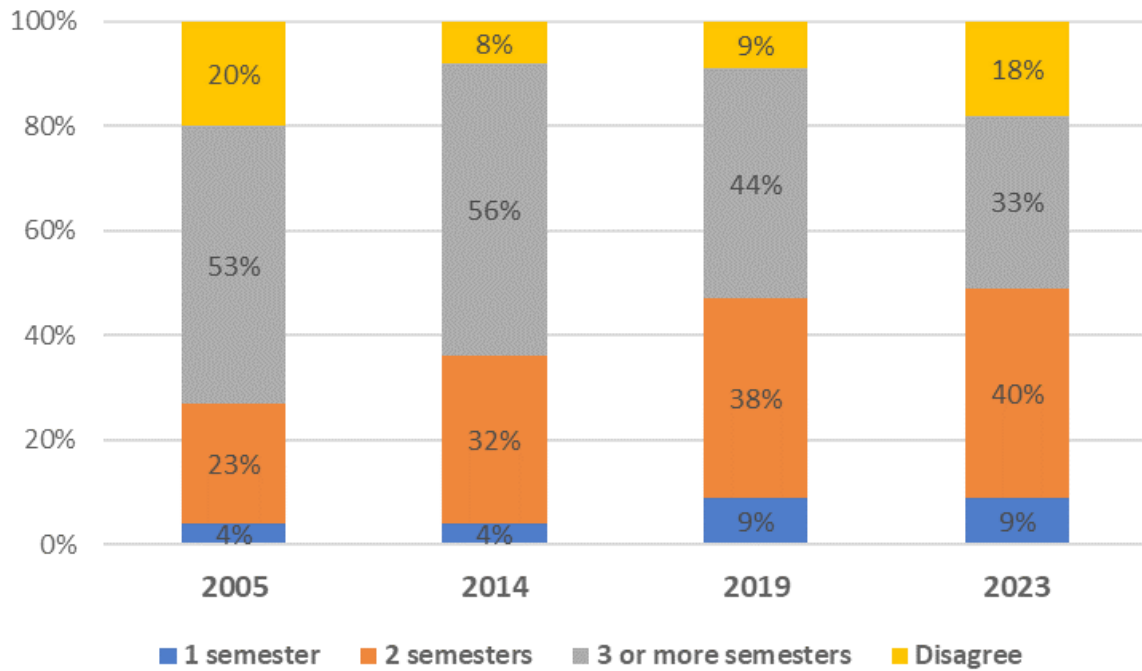


Figure 5. Comparison of interest in mandatory Physical education at Masaryk university

Further analysis (Figure 5) indicates that 73% of respondents support the notion of having 2 or more semesters of compulsory physical education. Presently, 2 semesters are mandatory during the course of study, with only 18% in disagreement. Respondents who oppose compulsory physical education commonly express a preference for engaging in unorganized or individual sports activities.

STUDY LIMITS

The interpretation of the study results should be based on the nature of the sample. While the sample is relatively strong in numbers, it is a deliberate and accessible selection. It stems from the nature and structure of the population, attributes that essentially limit the possibilities of interpretation with respect to the degree of generalization of the results. It is quite evident that the study's findings cannot be applied to the general population. However, considerable caution is also needed when comparing it with the Czech population of university students as a whole. In this case, the limitation is not so much due to the nature and structure of the population but rather to the specific range of physical activities implemented within Masaryk University. Logically, the particular offer of taught physical activities, their variety, and attractiveness fundamentally influence students' perception of these activities, their acceptance, and evaluation.

Therefore, the reliability of our study has its general limits, which lie in the specific conditions in which the teaching of physical activities at Masaryk University is organized. On the other hand, the study's results show that the path chosen by Masaryk University can inspire many other Czech universities. In this respect, our study provides results that, in addition to a particular scientific conclusiveness, have the potential to be educational and inspirational.

DISCUSSION

The research conducted by the authors aligns with previous findings indicating that over 70% of adolescents engage in regular sports activities (Rychtecký, 2002; Steptoe et al., 1997). However, concerning university students, studies have revealed varying levels of physical inactivity, with 23% reported among US youth, 30% among high school adolescents in Eastern Europe, and 44% in developing countries (Haase et al., 2004).

Guidelines from the World Health Organization (WHO, 2020) advocate that adults aged 18 to 64 should engage in for at least 150-300 minutes of moderate-intensity aerobic exercise or 75-150 minutes of vigorous-intensity aerobic exercise per week. Additionally, muscle-strengthening activities involving major muscle groups should be undertaken on 2 or more days a week.

However, findings from this study indicate that only 9% of respondents reported no physical activity, which parallels similar results reported by Král (2003), citing 14% of university students abstaining from any physical activity. A significant majority, constituting 75%, indicated individual sports engagement, aligning with the study's observation of individual activities such as running, cycling, swimming, hiking, yoga, weight training, skiing, workouts, dancing, and badminton as the most favoured among students. The individuals interviewed expressed a distinct preference for engaging in individual physical activities, with a ratio of 3:1 favouring individual pursuits over collective engagements. The decline in interest in sports games is also documented by Valjenta (2010) in his study.

The authors' findings reflect a decline in physical activity from adolescence, a trend influenced by the diverse organization of leisure time during university studies (Bodnaruková, 2009; Slepíčková, 2009; Tammelin, 2003). Activities like socializing with friends, listening to music, and watching TV rank among the most popular leisure pursuits among youth aged 15-24, surpassing sports (Pelka, Budínská; 2000). This shift in leisure preferences contributes to decreased exercise participation. Svobodová (2020) highlights that relocating to new cities often severs prior sports connections, leading to decreased physical activity among students.

Moreover, 75% of university students acknowledge lifestyle changes, noting increased fatigue and negative moods with each year of study (Provazníková, Schneiderová; 2005). Despite these challenges, studies affirm that students recognize the importance of physical activity, not just in leisure but also as an integral part of their university studies. Lenková (2002) reports that 81% of students believe improving their physical fitness could enhance their academic performance.

It was observed that over 90% of students express enduring satisfaction (Figure 5) with compulsory physical education, aligning with the desire of 73% of respondents for 2 or more semesters of compulsory physical education (currently, 2 semesters are mandatory). Střešítková (2019) corroborates this long-term trend, emphasizing sustained satisfaction among students (Figure 4) and the prevalent offerings of compulsory physical education at Masaryk University.

This consistent high level of satisfaction can be associated with a positive stance towards compulsory physical education at Masaryk University. Even students at the Faculty of Medicine of Charles University in Prague express alignment with this viewpoint, with only 3% of second-year or 10% of third-year students showing disinterest in university physical education (Gajdošík, 2012).

However, it's notable that this research, revealing a 7% increased lack of interest in compulsory physical education between the second and third years at university, contrasts with Valjent's (2010) findings. Valjent reported that students in higher years (3rd-5th year) demonstrated heightened awareness of sports' importance, expressing a 13% higher willingness to engage in regular exercise compared to first-year students.

CONCLUSION

The analysis revealed that the physical education provisions and organization at Masaryk University cater effectively to the vast majority of students, who express satisfaction with the opportunity for mandatory physical education completion. Nearly 73% of students would embrace the idea of extending compulsory physical education to 2 or more semesters (currently set at 2 semesters at MU), while over 75% express contentment with the array of sports activities offered in compulsory physical education, despite a marginal decline observed over the past two decades. There's also a noticeable rise in students engaging in unorganized individual sports outside institutional settings, likely influenced by changing activity preferences, potentially stemming from the impact of the COVID-19 pandemic.

Presently, individual physical activities hold prominence, surpassing collective pursuits at a ratio of 3:1. Masaryk University maintains a longstanding commitment to mandating physical education as part of students' academic studies, emphasizing the completion of at least two sports/movement activities. It's crucial to adapt to these evolving trends and establish conducive learning environments at universities, which can significantly bolster student interest in physical education.

The outcomes of this study provide an invaluable in-depth insight into current student attitudes toward compulsory physical education and the evolving preferences in physical activities. This monitoring of trends from recent years enables a more adaptable response to the dynamically changing preferences and needs of university students, aiming to enhance physical fitness and overall quality of life. This proactive approach helps mitigate sedentary behaviours and reduces the risks associated with prevalent lifestyle diseases.

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