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## **PHYSICAL ACTIVITY AS A PREDICTOR OF CAREER SUCCESS**

Career success and physical activity are often treated as two very separate domains. However, an increasing number of publications indicate that being physically active affects various aspects of life, including professional work. It is possible to distinguish at least a few ways in which engaging in sport influences professional work, including the development of advantageous competencies, such as teamwork skills and the ability to achieve goals. These competencies allow for the building of social capital and have a positive effect on physical and mental health. The article examines the relationship between physical activity and career success in Poland. The research involved the use of the Social Diagnosis database and found that practicing sport is related to the level of a person's earnings and their job satisfaction. These two factors are important because they are indicative of career success. The study concludes that practicing sport may contribute to career success.

**Keywords:** career success, physical activity, sport, income, job satisfaction.

### **1. INTRODUCTION**

Firstly, it would be desirable to define the term career success. According to T.A. Judge and his co-authors, career success is "the positive psychological or work-related outcomes or achievements one has accumulated as a result of one's work experiences" (Judge, Cable, Boudreau, & Bretz, 1995). M.B. Arthur, S.N. Khapov and P.M. Wilderom (2005) believe that career success "may be defined as the accomplishment of desirable work-related outcomes at any point in a person's work experiences over time". In turn, according to P. Bohdziewicz (2008) "the essential indicator of success, that which an individual associates with the pursuit of one's professional career, is the achievement of long-term goals formulated in that field". The above descriptions demonstrate that career success is not a precisely defined term. It is determined based on various achievements, ranging from very specific measures of remuneration to very general measures of well-being (Feldman & Ng, 2007).

In subject literature, two criteria for the evaluation of career success are most often distinguished: objective – measurable, accessible to third parties; and subjective – available only to a specific person (Arthur et al., 2005; Gunz & Mayrhofer, 2011; Heslin, 2005; Judge et al., 1995; Schomburg, 2007). Objective career success can be described using observable and measurable indicators, such as earnings or promotions. In contrast, subjective career

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success is the feelings that a person associates with their work. The basic indicator in such cases is job satisfaction but also includes pride in achievements and a sense of balance between one's professional and personal life.

In the case of sport, according to the definition established by the Council of Europe, "sport" is defined as: "all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels" (Commission of the European Communities, 2007). Because sport is a form of physical activity, it has been decided that in this article, words such as sport and physical activity will refer to the same activity and be used interchangeably. However, it is worth providing additional descriptions of these two terms. According to C.J. Caspersen, K.E. Powell and G.M. Christenson (1985), physical activity is any movement of the body made by skeletal muscles that lead to energy expenditure and is positively correlated with physical fitness. In turn, sport is a subset of physical exercises, and these have the characteristics of a planned, structured, repetitive body movement, which aims to improve or maintain physical fitness.

Physical activity and career success are often approached as two different issues. However, more and more research results indicate that physical activity affects professional life. It is possible to distinguish at least a few ways in which engaging in sport influences professional success. The first way is that during participation in sport, one can acquire advantageous competencies for the labor market, such as communication skills, teamwork skills, the ability to organize work and pursue goals (Bailey, Hillman, Arent, & Petitpas, 2013). The second way is by building social capital (Skinner, Zakus, & Cowell, 2008). By engaging in sport with other people, it is possible to make contacts that are useful in professional work. Physical activity can also affect career success by constituting a positive signal. It has been discovered that employers more often contacted work candidates who signaled sports abilities (Rooth, 2011). Besides, physical activity has a positive effect on mental health, helps to cope with stress and anxiety, and relieves depression (Swan & Hyland, 2012). Even short physical activity during work may improve efficiency and mood (Thogersen-Ntoumani et al., 2015).

It is worth to add that some studies indicate that practicing sport at a young age may be conducive to higher incomes later in life (Barron, Ewing, & Waddell, 2000; Kavetsos, 2011). Seemingly, it might appear that any activity that limits the time that could be spent on schooling does not serve young people well; however, it is the contrary, because participation in sport has a positive impact on school performance (Pfeifer & Cornelissen, 2010). Furthermore, students engaging in sport enjoy school more and more often decide to continue their education at university (Eccles, Barber, Stone, & Hunt, 2003).

It has to be also stated that so far, in Poland the present subject is not yet of significant interest. Therefore the article aims to present the relationship between physical activity and career success in Poland. Because the literature on the subject often lists earnings and job satisfaction as basic indicators of career success, in this study, it was decided to focus on these two indicators. Further parts of the article will present research methods, results and discussion.

## 2. PRESENT-DAY PARTICIPATION IN SPORT AND CAREER SUCCESS

To examine dependencies between physical activity and career success, the Social Diagnosis database was used. The Social Diagnosis Project is a comprehensive survey of households and the conditions and quality of life of Polish people (Czapiński & Panek, 2015). During this research, both economic (e.g., income) and non-economic (e.g., lifestyle) information are collected. The first measurement was carried out in 2000, and since 2003 every measurement took place at a two-year interval. In the subsequent rounds of the Social Diagnosis participate all available households and individuals from the previous rounds. Due to the length of the project, in subsequent rounds, some households and individuals resigned to participate in the survey. At the same time, new households were included in the sample. Such actions ensured the assumed size of the sample and its representativeness on a national scale.

A question regarding sport was added to the questionnaire used as part of the Social Diagnosis in 2009. Therefore, the time range of the data used is 2009–2015. During this period, four measurements were taken, in 2009, 2011, 2013 and 2015. In 2009, 26 243 respondents took part in the Social Diagnosis survey, in 2011 – 26 453, in 2013 – 26 308 and 2015 – 24 324. It turned out that in each of the analyzed rounds of the Social Diagnosis, people practicing sport earned more on average, and the average difference in wage was about 500 PLN. Detailed data are presented in Fig. 1.

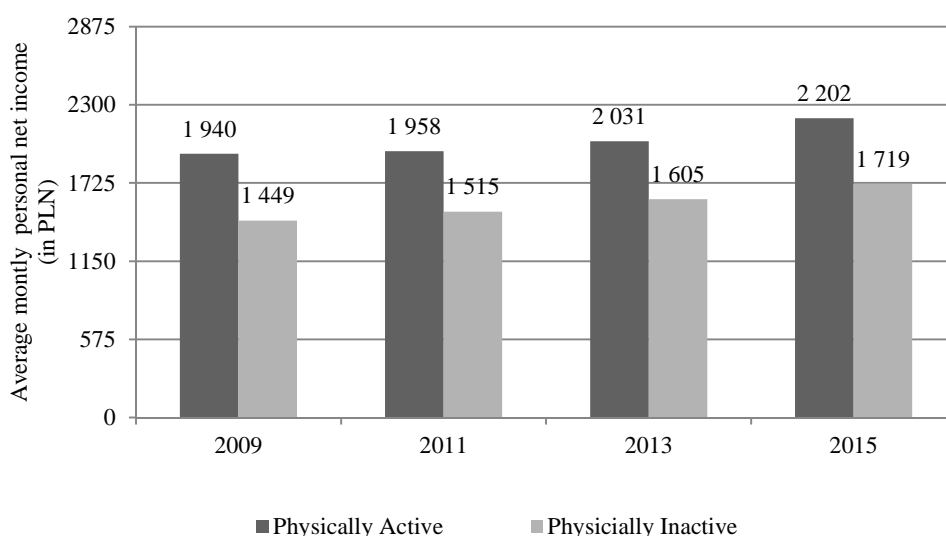


Fig. 1. Average monthly personal net income of people physically active and physically inactive

Source: own work based on the integrated Social Diagnosis database, [www.diagnoza.com](http://www.diagnoza.com) [Access: 09.05.2017].

The results of the Mann-Whitney test (shown in Table 1) indicate that practicing sport significantly differentiates respondents' incomes (value  $p < 0.05$  indicates this). The values of the magnitude of the  $\eta^2$  effect can be interpreted as small.

Table 1. Results of the Mann-Whitney U test verifying the differences in net income of physically active and inactive people between 2009 and 2015

Year	Mann-Whitney U test	Standardized Z-test	Asymptotic significance (Bilateral)	$\eta^2$ effect magnitude
2009	21 229 271.00	– 21.72	0.000	0.024
2011	31 893 902.50	– 24.75	0.000	0.032
2013	32 785 220.00	– 24.02	0.000	0.029
2015	22 855 337.50	– 24.77	0.000	0.037

Source: own work based on the integrated Social Diagnosis database, [www.diagnoza.com](http://www.diagnoza.com) [Access: 09.05.2017].

The second basic indicator of career success is a sense of job satisfaction. The results of the research indicate that people who practice sport more often than physically inactive people show a higher degree of satisfaction with their jobs (they chose the answers: “very satisfied” and “satisfied”). A detailed distribution of respondents' answers from four rounds of Social Diagnosis is presented in Table 2. Numbers placed in parentheses indicate the size of the given sample.

Table 2. Distribution of the level of job satisfaction among active and inactive people (in %)

Level of job satisfaction	2009		2011		2013		2015	
	PA (n=3119)	PI (n=10417)	PA (n=5219)	PI (n=8404)	PA (n=5304)	PI (n=7861)	PA (n=4669)	PI (n=6633)
Very satisfied	8.8	5.4	9.9	6.1	9.3	5.3	10	6.3
Satisfied	41.9	36.6	40.6	35.9	38.9	33.8	39.2	36.0
Quite satisfied	34.2	38.8	33.2	36.8	34.6	38.3	35.0	37.9
Quite dissatisfied	8.2	10.3	8.2	11.0	9.0	11.4	8.4	10.7
Dissatisfied	4.4	6.6	5.3	7.5	5.7	7.7	4.9	6.5
Very dissatisfied	2.5	2.3	2.8	2.7	2.5	3.5	2.5	2.6

PA – physically active, PI – physically inactive.

Source: own work based on the integrated Social Diagnosis database, [www.diagnoza.com](http://www.diagnoza.com) [Access: 09.05.2017].

Large differences can also be observed in the case of “dissatisfied” answers, which were more often chosen by physically inactive people. The results of the U Mann-Whitney test (presented in Table 3) showed that practicing sport significantly affects the level of satisfaction that the respondents feel with their jobs. Physical activity is associated with greater satisfaction with one’s job and being physically inactive, on the contrary – with greater dissatisfaction.

Table 3. Results of the Mann–Whitney U test verifying the differences in the level of job satisfaction among active and inactive people

Year	Mann–Whitney U test	Standardized Z-test	Asymptotic significance (Bilateral)	$\eta^2$ effect magnitude
2009	14 582 874.50	– 9.20	0.000	0.006
2011	19 597 783.50	– 11.02	0.000	0.009
2013	18 458 533.50	– 24.93	0.000	0.047
2015	14 107 020.00	– 8.52	0.000	0.006

Source: own work based on the integrated Social Diagnosis database, [www.diagnoza.com](http://www.diagnoza.com) [Access: 09.05.2017].

Based on the analyses carried out, it was confirmed that the present-day practice of sport is associated with higher earnings and greater job satisfaction, i.e., with two basic indicators of career success. The next part of the article presents how practicing sport in youth affects later career success.

### 3. SPORT IN HIGH SCHOOL AND UNIVERSITY AND LATER CAREER SUCCESS

It was decided to verify whether physical activity in high school and university is a factor that influences later career success. To check this, people studying in high school and university were selected from the Social Diagnosis database. It was also important to determine which of these people combined both studying and practicing sport. In 2009, 895 high-school pupils and 1346 university students took part in the Social Diagnosis. In 2009, 62.9% of the high-school pupils and 54.1% of the university students declared that they practiced sport. The next step was a consideration of the professional situation of these people in 2013–2015. It was decided that the data from 2011 would not be analyzed, because at that time, too many people from the group in question were still studying. It was, therefore, possible to check whether the effects of practicing sport are revealed after 4 or 6 years.

Those who in 2009, while in high school or university, were physically active, later achieved higher average incomes. In 2013, the difference in average incomes was almost PLN 126 in favor of physically active people. Then, within two years, it increased and amounted to almost PLN 400 on average. Detailed data are presented in Fig. 2.

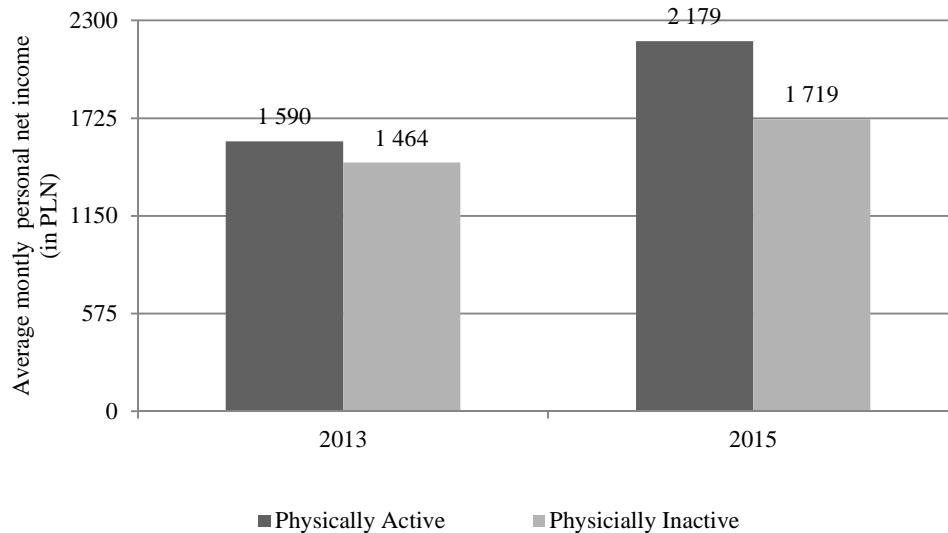


Fig. 2. Average personal monthly net income in 2013 and 2015 among physically active and physically inactive high school students and university students from 2009

Source: own work based on the integrated Social Diagnosis database, [www.diagnoza.com](http://www.diagnoza.com) [Access: 09.05.2017].

Using U Mann-Whitney test, it was possible to check whether the differences in income were significant and the following results were obtained: 2013 ( $U = 9450.00$ ,  $Z = -1.25$ ,  $p = 0.213$ ); 2015 ( $U = 3028.50$ ,  $Z = -1.62$ ,  $p = 0.104$ ). The results indicate that there are no statistically significant differences (the  $p$  value  $> 0.05$  confirms this). The lack of significance may, however, result from the small size of the compared study groups, because in 2013, it was a total of 288 people, and in 2015 – 169 people. This is because in each subsequent round of Social Diagnosis, some respondents from the previous years were absent.

The second analyzed indicator of career success is a sense of job satisfaction. People who – while in high school or university in 2009 had practiced sport – more often in 2013 and 2015 chose the answers: “very satisfied” and “satisfied”. Interestingly, physical activity was also associated with a more frequent indication of such responses as “quite dissatisfied” and “dissatisfied”. However, the answer “very dissatisfied”, as well as the answer “quite satisfied”, prevailed in people who did not play sport. Therefore, it is difficult to interpret the results unequivocally, because playing sport simultaneously combined the preference of both very positive and partially negative responses.

The following results of U Mann-Whitney test checking the differences in the level of job satisfaction were obtained: 2013 ( $U = 9728.00$ ,  $Z = -1.26$ ,  $p = 0.209$ ); 2015 ( $U = 3485.50$ ,  $Z = -0.68$ ,  $p = 0.497$ ). It should be stated that despite some differences between the groups in question, it was not possible to confirm that physical activity in high school and university is a factor that influences later career success. Perhaps this is due to the small size of the compared study groups. The reason may also be that the positive effects

Table 4. Distribution of the level of job satisfaction among people who in high school or university in 2009 played sport or did not play sport (in %)

Level of job satisfaction	2013		2015	
	PA (n=145)	PI (n=146)	PA (n=87)	PI (n=85)
Very satisfied	8.3	6.1	11.6	5.9
Satisfied	37.2	30.8	37.9	35.3
Quite satisfied	34.5	42.5	26.4	40.0
Quite dissatisfied	9.0	6.2	13.8	10.6
Dissatisfied	7.6	8.9	8.0	3.5
Very dissatisfied	3.4	5.5	2.3	4.7

PA – physically active, PI – physically inactive.

Source: Own work based on the integrated Social Diagnosis database, [www.diagnoza.com](http://www.diagnoza.com) [Access: 09.05.2017].

of physical activity can only be fully observed after a longer time period. In the present study, however, the observation period over the years 2009–2015 were not able to be extended. Nevertheless, it is worth noting that the average values of individual indicators suggest that such a dependency may exist. Therefore, in order to deepen the analysis of the importance of sport in high school or university, in future studies it would be worthwhile to extend the observation period and increase the research sample.

#### 4. CONCLUSIONS

The above analyses were aimed at showing that an undertaking of physical activity is connected with a career success. It has been shown that physically active people receive higher incomes and are more satisfied with their jobs and these are two indicators of career success most frequently mentioned in the literature. From a scientific perspective, the results can as an argument that physical activity is an investment in human capital. By practicing sport, a person invests in himself/herself, which brings measurable benefits in his or her professional career. It can be assumed that by practicing sport, a person improves their well-being, which also increases job satisfaction and work efficiency, which directly contributes to an increase in earnings. In turn by referring to the theory of signaling (Spence, 1973), it may be possible to explain the greater career success of physically active people by the fact that information about practicing sport is a positive signal that gives an advantage in the labor market. People who practice sport can be seen, by potential employers, as healthy, ambitious and persistent.

The obtained results are not only of scientific significance but can also have practical applications in the work of people managing human resources and in implementing policies on various levels of public administration. Perhaps it is worth, following the example of the largest American companies (e.g. Google and Facebook), allow employees to engage in

sport in the workplace or outside work. Also, the dissemination of knowledge about the relationship between physical activity and career success may contribute to a rise in participation in sports activities which can be also beneficial for the functioning of the entire economy (Kutwa & Rafał, 2019).

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