



**STANISŁAW SZAREK**

University of Siedlce, Poland

ORCID iD: [orcid.org/0000-0003-1623-6379](https://orcid.org/0000-0003-1623-6379)

**EDYTA BOMBIAK**

University of Siedlce, Poland

ORCID iD: [orcid.org/0000-0002-0273-6228](https://orcid.org/0000-0002-0273-6228)

**ANETA WYSOKIŃSKA**

War Studies University, Poland

ORCID iD: [orcid.org/0000-0001-9021-6355](https://orcid.org/0000-0001-9021-6355)

## THE ROLE OF PHYSICAL ACTIVITY IN THE IMPROVEMENT OF WELL-BEING – THE CASE OF UNIVERSITY STAFF

## ROLA AKTYWNOŚCI FIZYCZNEJ W POPRAWIE DOBROSTANU – STUDIUM PRZYPADKU PRACOWNIKÓW UNIwersYTETU

## ABSTRACT

Regular physical activity and exercise have an impact not only on employee health but also on their efficiency at work. Therefore, the emphasis on physical wellness is a crucial factor of modern human resource management in organizations. The purpose of the study was to evaluate the impact of physical activity of university staff members on their well-being and work performance. In the course of analyses, the author attempted to find an answer to the question to what extent physical activity contributes to the improvement of well-being of the workforce. The study was based on a diagnostic survey method employing a questionnaire. The analyses confirmed that the stimulation of physical activity in the workplace may benefit employee well-being on many levels. The results of the study demonstrated that physical activity has a positive impact on emotional, psychological, and social well-being of university staff, and that it augments the efficiency, focus, and creativity in the workplace. The research findings may be of importance to employees, employers, and decision-makers involved in the taking of decisions about health promotion programmes in the workplace. The study may contribute to the promotion of the concept of well-being, above all, in non-profit organizations, where new tendencies in human resource management are typically introduced later than they are in commercial organizations.

## STRESZCZENIE

Właściwa aktywność ruchowa jest tym aspektem stylu życia, który oddziałuje nie tylko na zdrowie pracowników, ale też ich kondycję w pracy. Dbałość o dobrostan fizyczny stanowi zatem ważny element nowoczesnego zarządzania zasobami ludzkimi w organizacjach. Celem badań była ocena wpływu aktywności fizycznej pracowników uczelni na ich dobrostan i efekty pracy. W toku badań podjęto próbę dopowiedzi na pytanie, w jakim stopniu aktywność fizyczna przyczynia się do poprawy dobrostanu wewnętrznego i zewnętrznego pracowników. Badania przeprowadzono za pomocą metody sondażu diagnostycznego z wykorzystaniem kwestionariusza ankiety. Potwierdziły one, że stymulowanie aktywności fizycznej w miejscu pracy może jednocześnie poprawić wiele form dobrostanu pracowników. Wyniki wykazały, że aktywność fizyczna ma pozytywny wpływ na dobrostan emocjonalny, psychologiczny i społeczny pracowników uczelni, a także poprawia wydajność, koncentrację i kreatywność w pracy. Wyniki te mogą mieć znaczenie dla pracowników, pracodawców i decydentów zaangażowanych w podejmowanie decyzji dotyczących programów promocji zdrowia w miejscu pracy. Wkład uzyskanych wyników badań polega na promowaniu koncepcji well-being w szczególności w organizacjach non-profit, w których nowe trendy w zarządzaniu zasobami ludzkimi są zwykle wdrażane później niż w organizacjach komercyjnych.

**KEYWORDS:** *employees; workplace; human resource management; well-being; physical activity*

**SŁOWA KLUCZOWE:** *pracownicy, miejsce pracy, zarządzanie zasobami ludzkimi, dobrostan, aktywność fizyczna*

## INTRODUCTION

Under the conditions of rising expectations of consumers expectations and shrinking work resources given the decreasing working age population as a result of demographic processes, organizations must face the challenge of keeping their workforce highly effective and committed. Growing competition, globalization, and unlimited access to information have made market success and survival apply only to those organizations whose employees are satisfied, involved and creative. Source literature suggests that in this context, the emphasis on employee well-being is becoming a crucial factor of human resource management. The staff's physical and mental well-being has a direct influence on operational possibilities of companies. It determines business effectiveness and preparedness to change and develop, which is why commitment to well-being is now one of the priorities of modern organizations. Workforce wellness and satisfaction with life ensure harmony among the corporeal, intellectual, and spiritual zones and are crucial factors of corporate organizational culture (Filipiak, 2000, p. 42-43).

One of the aspects having an impact on well-being is physical activity. Benefits from regular physical activity are well recorded in source literature. Due to the fact that the largest part of the world's population gets insufficient physical activity is physically inactive, physical inactivity is considered to be a public health problem. According to the WHO definition, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Economically stable countries do not achieve even the minimum level of physical activity recommended by WHO in order to maintain health (Bouchard, Després, 1995, p. 268-275).

Even though the workplace has an immense potential as an environment promoting physical fitness, it often remains unexploited in managerial practice. Research studies of other authors demonstrate that the most common reason for the absence of commitment to the well-being of employees is limited budget for this purpose (Puchalski, Korzeniowska, 2013, p. 743-754). Such a low emphasis on the well-being of employees results from limited awareness of both employers and employees. This, in turn, is an effect of insufficient

vulgarization of the concept of well-being in research and academic publications and ignorance of its benefits. Studies in the field are limited to some selected aspects of well-being, frequently in relation to the issue of occupational stress of those professional groups which are particularly exposed to stress, for instance medical staff (Pisanti, Van der Doef, Maes, Meler, Lombardo, Lazzari, Violani, 2016, p. 1143; Turnell, Rasmussen, Butow, Juraskova, Kirsten, Wiener, Patenaude, Hoekstra-Weebers, 2016, p. 33–41). On the other hand, the issue of physical activity often concerns its impact on the health of children. The analysis of literature revealed that there is a gap with respect to the examination of the impact of physical activity on the well-being of university employees. The authors of this manuscript intended to bridge the gap, at least to some extent. The purpose of this study is to evaluate the impact of physical activity on selected aspects of the well-being of university staff and their work performance.

This study attempts to answer the following questions:

1. Does the physical activity of the staff of the Siedlce University of Natural Sciences and Humanities contribute to their well-being?
2. Is there a correlation between the activity of the respondents in their youth and the well-being rating?
3. Is there a correlation between the time devoted by the respondents to physical activity at present and the well-being rating?
4. Can university staff observe the impact of physical activity on their work performance?

According to the knowledge of the authors, it has been the first study to analyse the relationship between physical activity and selected forms of the well-being of university staff having regard for the conditions of Polish non-profit organizations. The research findings may be useful to the managing staff in the process of developing practices oriented at enhancing employee well-being. The study contributes to the promotion of the concept of well-being, above all, in non-profit organizations, where new tendencies in human resource management tend to be introduced later than they are in commercial organizations.

## **EMPLOYEE WELL-BEING AS AN ELEMENT OF HUMAN RESOURCE MANAGEMENT**

There is no single pre-agreed definition of well-being in the study literature because of its multifaceted nature. Without a doubt, well-being is multidisciplinary and refers to a number of phenomena and aspects. Current research into well-being addresses two concepts: the eudaimonic perspective, which emphasises positive mental functioning and human flourishing, and the hedonic perspective, which focuses on happiness, positive effects, and life satisfaction [Forgeard, Jayawickreme, Kern, Seligman, 2001, p. 1).

Well-being may be viewed at the level of an individual, an organization, a region, or a state. It is a subjective, multidimensional, and holistic term, which comprises physical, social, environmental, educational, spiritual, affective, and cognitive life levels (Liamputtong, Fanany, Verrinder, 2012, p.23-34 ). At the level of an individual, it is a term used as a synonym of a broad scope of terms, such as self-esteem, self-efficacy, self-determination, boosted mood, positive mental health, life satisfaction etc. (Huppert, 2017, p. 163-167). Literally, well-being is a state of comfort, health, and happiness, but also experiencing positive emotions and general life satisfaction (Diener, Eunkook, Shigehiro, 1997, p. 25-41). Well-being is associated with contentment, personal development, self-acceptance, positive relations and autonomy of an individual (Dodge, Daly, Huyton, Sanders 2012, p. 222-235). It is a holistic assessment of the quality of life of an individual on the basis of some subjective criteria determined by the individual (Shin, Johnson 1978, p. 475–492 ).

Well-being is oftentimes characterised by an evaluation of individual's mental condition (Trzebińska, 2008, p. 41-42) and understood as a state of satisfaction and fulfilment of an employee. Dodge et al. define well-being as a balance between psychological, physical and social resources of an individual and the challenges it comes across in those areas. Human beings naturally have the resources they need to meet specific challenges. When they have more challenges than resources, their self-satisfaction drops (Dodge, Daly, Huyton, Sanders, 2012, p. 222). The definition treats individuals as decision-makers responsible for the choices, preferences and abilities to achieve well-being (Seligman , 2002, p.3-13).

The well-being approach should be considered an important element of effective human resource management in contemporary organizations. Wellbeing in the workplace refers to the shaping of working environment conditions in such a way so as to positively influence employees' professional development, sense of security, strengthening bonds and relationships, and ultimately ensure the sustainability of the company. It is worth to take care of the broadly understood employee health in the workplace for it is fundamental not only to their productivity, but also to the sense of well-being related to the functioning of an individual in all life areas. When employees are overworked and chronically distressed, they become ineffective, expose themselves and others to errors, diseases, even accidents. Thanks to the introduction of corporate well-being programmes, workers benefit not only by a lower disease and employee rotation rates, but also by an increase in involvement, resilience to stress and the feeling of belonging to a given organization. Supporting health-promoting behaviours in organizations and treating health as one of the values of organizational culture allow companies to avoid pathological situations, reduce costs and create smoothly functioning teams. Organizations that care about employees' well-being gain benefits in terms of increased efficiency, higher engagement, lower absenteeism and turnover rate, as well as reduced labour costs (Wellbeing Indicator, 2022).

Actions committed to the development of employee well-being are also significant components of a modern approach referred to as sustainable human resource management (SHRM). SHRM represents an innovative approach to people management based on pursuance of integration of economic, environmental and social goals (Pabian, 2015, p. 7-16). It involves the undertaking of such practices which allow organizations meet objectives in a long-term whereas caring for employees at the same time (Ehnert, 2009, p. 45-49). SHRM creates a framework which allows one to face modern challenges, such as a shortage of human resources or health problems in the workplace (Stankevičiūtė, Savanevičienė, 2018, p. 4798). Employee well-being development is strictly related to the social aspect of HRM which is an effect of the merger of human resource practices with the CSR concept. It involves an optimum use of human resources while respecting employee rights, considering their expectations, and engaging in an active staff-company

dialogue. According to A. Pocztowski, the social dimension of sustainable human resource management is expressed by creating such a working environment where staff can attain their professional goals in line with a company strategy (Pocztowski, 2016, p. 303-314). The activities include, amongst other things (Bombiak, 2020, p. 1667-1687):

- creating safe working conditions (compliance with the industrial health and safety law and commitment to work-post ergonomics),
- developing harmonious interpersonal relations,
- implementing programmes which facilitate combining professional and private lives (work-life balance),
- taking care of employees' physical and mental health,
- analysing the needs of staff members,
- customizing jobs (job crafting) (Kardas, 2020, p. 1937-1950).

All in all, employee well-being is becoming a critical topic for HR specialists. The concept captures numerous aspects of the employee-employer relationship, starting with traditional elements, such as sound remuneration or additional benefits, through medical care (both mental and physical), to stimulating physical activity and empowerment. Thus, it is about a broadly understood commitment to financial, physical and mental comfort of an employee in the workplace, whose achievement has a positive impact on work efficiency.

## **DIMENSIONS OF THE CONCEPT OF WELL-BEING AND THE METHODS OF ITS IMPLEMENTATION IN ORGANIZATIONS**

The authors of the well-being concept, Swarbrick and Yudof, have developed eight key dimensions which give one the feeling of satisfaction and self-fulfilment and include both the eudamonic and hedonic aspects of well-being. They have been divided into internal dimensions that relate directly to a person (in this case, to an employee), and external dimensions which arise under

the person's relationship with the environment. The external dimensions of the well-being concept are:

- financial well-being – the feeling of stability and financial safety of employees realized through a relevant policy of remuneration and linking the goals of the organization with those of the employee.
- social well-being – it encompasses relations with other employees and the feeling of being a part of the company. Organizations may develop this field by organizing family days (e.g. children in the office), hobby groups, common meals, support for parents, multicultural communication workshops, psychological counselling, help in difficult life situations but also promoting team integration, promoting cooperation and adaptation days.
- professional career – companies may aid employee development through coaching, mentoring, the ability to go to college, specialist training, working with leaders, or courses unrelated to work.
- external environment – this well-being area pays particular attention on a positive relationship with the environment. Companies may support their staff members in this field by, amongst other things, introducing plants to the workplace (green space), music in the office, creating relaxation rooms, but also organizing job volunteering and charity initiatives for local communities (Swarbrick, Yudof, 2015, p. 23-124).

The internal dimension of well-being captures (Swarbrick, Yudof, 2015, p. 23-124):

- physical well-being – refers to health, vitality and physical power. Companies may introduce various supporting solutions here, such as nutrition workshops, healthy snacks vending machines, sports cards, prophylactic tests, support groups (habit change, including help in losing weight or quitting smoking).
- spiritual well-being – this area focuses on life values, spirituality and the feeling that life has sense. Activities that companies may implement with a view to attaining spiritual well-being development are personal coaching, organizational culture based on values, company missions and vision co-created by



employees, etc. In addition, employers may offer their employees relaxation time in the form of meditation at work.

- emotional well-being – the development of this field provides employees with emotion awareness, the ability to control emotions, and improves employee ability to cope with stressful situations. Enterprises may implement actions which allow one to rest and de-stress. To do so, they may introduce the so-called relaxation rooms, psychological counselling, stress-coping workshops, or personal coaching. – intellectual well-being – it is supported by courses and workshops that are held in companies to increase workers' knowledge in certain areas.

Well-being in an organization is a continuous commitment to employee comfort and paying attention to employee needs in each of the specified dimensions. Wellbeing is a set of practices which produce a healthy and involving working environment that may become one of the central principles of corporate business strategies. Wellbeing programmes are complex measures taken to promote employee comfort. The programmes need to be suited to the needs and abilities of a given organization. The implementation of the work-life balance concept is supported by the amendment to the Labor Code. The regulations introduced in April 2023 increase employee protection, improve working conditions and employees' access to information regarding their employment (Kodeks Pracy, 2023).

## **MATERIALS AND METHODS**

The purpose of the study was to evaluate the impact of physical activity of university staff members on their well-being and work performance. In the course of analyses, the authors attempted to find an answer to the question to what extent physical activity contributes to the improvement of internal and external well-being of the Siedlce University of Natural Sciences and Humanities staff.

As part of the research component have verified the following hypotheses:

1. There is a correlation between the physical activity of university staff in their youth and the well-being rating.

2. There is a correlation between the time devoted to physical activity by university staff at present and their well-being rating.
3. There is a correlation between the sports activity of university staff in their youth and the evaluation of the impact of physical activity on their work performance.

The study was conducted on a non-random sample of participants in the University of Sport project implemented at the Siedlce UPH. The project was financed by the Ministry of Education and Science as part of the Social Responsibility of Science programme (Grant no. SONP/SP/462697/2020). Those employed at the Siedlce University of Natural Sciences and Humanities who volunteered to participate in the project were asked to complete a questionnaire. Seventy-five employees participated in the research. This group included both research, teaching, and administrative staff. The study population structure was dominated by females, who constituted 77% of the respondents. When analysing the age structure, one can note that more than a half of the respondents (52%) were aged 41-50. The majority of the respondents resided in the city (80% of the total population). The analysis of respondents' work experience shows that the largest group were those with work experience of more than 15 years but less than 25 years. Their share in the total number of respondents was 44%. Those with 6 to 15 years' seniority were also present in large numbers (22.7%). The study group was dominated by employees with master's (52%) or doctor's degrees (32%), and academic staff members (73.3%). Even though 52% of the respondents used to do athletics, only 2.7% did so professionally. Nonetheless, 39% confirmed their physical activity in a school or university team.

## RESULTS

In the course of analyses, an attempt was made to evaluate different aspects of university staff's well-being. The evaluation comprised the following dimensions: financial well-being (satisfaction with remuneration); social well-being (relations with colleagues, superiors, students); working conditions; professional development; physical well-being (health condition, satisfaction with physical activity). To determine the relationships between the analysed variables, every variable was ascribed a numerical value, as presented in Table 1. The respondents rated well-being on a five-level Likert scale, where 1 signified a very low and 5 a very high rate. The results of the evaluation together with basic statistics are presented in Table 1.

**Table 1.** Evaluation of university staff's well-being ( $n=75$ )

Wellbeing dimension	Mean	Standard error	Median	Standard deviation	Variance	Kurtosis	Skewness
	rate (scale 1-5)						
Satisfaction with financial well-being	2.9	0.105	3	0.905	0.820	-0.072	-0.403
Satisfaction with relations with colleagues	4.1	0.076	4	0.661	0.437	-0.664	-0.102
Satisfaction with relations with superiors	4.1	0.086	4	0.746	0.556	-0.472	-0.377
Satisfaction with relations with students	4.4	0.073	4	0.632	0.399	-0.619	-0.495
Satisfaction with working conditions	4.0	0.106	4	0.915	0.837	-0.242	-0.706
Satisfaction with professional development	3.6	0.09	4	0.775	0.601	-0.242	-0.295
Health satisfaction	3.7	0.086	4	0.741	0.545	0.056	-0.342
Physical activity satisfaction	3.0	0.11	3	0.949	0.900	-0.290	-0.254
Satisfaction with relations with colleagues	4.1	0.076	4	0.661	0.437	-0.664	-0.102

The studied employees rated the highest their social well-being based on interpersonal relations in the working environment. Another highly rated factor was satisfaction with relations with students (average rating of 4.4).

Relationships with colleagues and superiors had an average of 4.1 Professional development and physical well-being composed of health satisfaction and physical activity satisfaction were rated slightly lower (3.6, 3.7, and 3.0, respectively). The lowest rated was the financial dimension analysed through the prism of satisfaction with received remuneration. Here, the average rating was 2.9, which demonstrates that the level of compensation does not provide the feeling of financial stabilisation or safety.

The study revealed significant statistical correlations between the well-being evaluation and selected variables typical of the studied population (Table 2). It was determined that there is a relation between the sex and the rating of working conditions. The Pearson's correlation coefficient between the variables was  $r=-0.244$  with the critical value at 0.227 for  $p=0.05$ , which means that women are less satisfied with working conditions than men are. Dependencies were also found between financial well-being and the academic degree of the studied population. The Pearson's correlation coefficient between the variables was  $r=0.279$ , which signifies that the employees with a higher degree evaluated higher their financial well-being. A relationship was also established between the degree and relations with colleagues. The Pearson's correlation coefficient between the variables was  $r=-0.231$ , which means that people with a higher degree rated their relations with colleagues as worse. Furthermore, a relationship between respondents' age and their health rating was determined ( $r=-0.283$ ). It was observed that elder people rated their health well-being as less satisfactory. On the other hand, those who practised sport when young rated their satisfaction with physical activity higher ( $r=0.243$ ). The study also confirmed that there is a correlation between the time devoted by the respondents to physical activity at present and the rating of respondents' social well-being ( $r=0.441$ ). It was established that the employees who spend more time on physical activity satisfaction are more satisfied with physical activity performed with friends. Furthermore, it was observed that there is a relationship between the time devoted to physical activity and absenteeism ( $r=0.260$ ). The respondents who spend more time on physical activity demonstrated lower absenteeism.

**Table 2.** *The value of Pearson's r coefficient between selected variables characterising the respondents and their well-being self-rating*

Variable	Sex	Age	Degree	Sports in the past	Time devoted to sports at present
Satisfaction with financial well-being	-0.002	-0.029	<b>0.279**</b>	-0.083	-0.042
Satisfaction with relations with colleagues	-0.092	-0.108	<b>-0.231*</b>	-0.067	0.123
Satisfaction with working conditions	<b>-0.244*</b>	0.054	-0.131	0.028	-0.185
Health satisfaction	-0.085	<b>-0.283**</b>	-0.057	0,087	-0.011
Total physical activity satisfaction	0.077	-0.138	-0,117	<b>0,243*</b>	0.166
Satisfaction with physical activity with friends	-0.65	-0.153	-0.086	-0.018	<b>0.441**</b>
Decreased absenteeism	0.104	-0.183	0.035	0.149	<b>0.260*</b>

\* – significant for  $p=0.05$ ; \*\* – significant for  $p=0.01$

An important research issue from the point of view of the topic was an assessment of the impact of physical activity on various dimensions of well-being. The respondents assessed the impact on a five-level Likert scale, where 1 signified a very low and 5 a very high impact of physical activity. The results of the assessment are presented in Table 3.

In the opinion of the studied university employees, physical activity has the greatest impact on the improvement of resilience (rating of 4.3), which is a part of physical well-being. It is also vital to mood improvement and stress reduction (4.2), which favours reinforcement of emotional well-being. Other components having an impact on emotional well-being, and related to mental health, are a reduction of aggression (impact at 3.9) and counteracting depression (impact at 3.8). According to the respondents, the lowest impact of physical activity is on interpersonal relations at work (impact at the level of 3.4). The respondents rated the impact of physical activity on work performance as relatively high, i.e. on improved attention span at work (3.9 impact), increased effectiveness and creativity at work (3.8 impact), reduced absenteeism (3.7 impact) and enhanced motivation to work (3.6 impact).

**Table 3.** *Evaluation of the impact of physical activity on selected aspects of the well-being of university staff and the effects of their work (n=75)*

The impact of physical activity on:	Mean rate (scale 1-5)	Standard error	Median	Standard deviation	Variance	Kurtosis	Skewness
Improved attention span	3.9	0.078	4	0.6717	0.451	-0.753	0.1799
Increased work productivity	3.8	0.085	4	0.736	0.542	-0.281	-0.155
Increased motivation to work	3.6	0.107	4	0.929	0.862	0.869	-0.601
Increased creativity	3.8	0.086	4	0.741	0.549	1.761	-0.66
Lower absenteeism	3.7	0.114	4	0.983	0.967	0.671	-0.776
Improved interpersonal relations at work	3.4	0.102	3	0.887	0.786	0.816	-0.447
Improved mood	4.2	0.085	4	0.732	0.536	-1.027	-0.41
Reduced risk of professional burnout	3.6	0.099	4	0.858	0.736	-0.580	-0.059
Reduced stress levels	4.2	0.085	4	0.736	0.542	-1.096	-0.263
Reduced anxiety	3.6	-0.108	4	0.934	0.873	0.167	-0.395
Reduced aggression	3.9	0.118	4	1.021	1.043	1.410	-1.112
Counteracting depression	3.8	0.114	4	0.988	0.976	0.591	-0.676
Increased resilience	4.3	0.089	4	0.774	0.599	-0.243	-0.809

The analyses also showed statistically significant correlations between an assessment of the impact of physical activity on workforce well-being and respondents' age (Table 4). It has been established that elder employees of longer seniority provided a lower assessment of the impact of physical activity on improved mood ( $r=-0.253$ ), stress reduction ( $r= - 0.282$ ) and increased resilience ( $r=-0.333$ ). Elder people also offered a lower rating of the impact of physical activity on boosted creativity ( $r = - 0.235$ ).

**Table 4.** Value of the Pearson's *r* coefficient between selected characteristics of the studied group and the evaluation of the impact of physical activity on employee well-being

Evaluation of the impact of physical activity on:	Age	Seniority (professional experience)	Athletics in the past	Professional athlete	School/university team athlete	Time devoted to sports
Improved concentration	-0.181	-0.082	<b>0.309**</b>	0.036	<b>0.252*</b>	-0.103
Increased work productivity	-0.145	-0.097	<b>0.228*</b>	0.149	0.131	0.030
Increased motivation to work	-0.168	-0.079	<b>0.234*</b>	-0.146	0.114	-0.060
Increased creativity	<b>-0.235*</b>	-0.165	<b>0.266*</b>	0.048	0.186	0.010
Improved interpersonal relations at work	-0.141	-0.080	<b>0.269*</b>	-0.078	0.076	0.072
Improved mood	<b>-0.253*</b>	<b>-0.253*</b>	0.060	0.059	0.124	0.075
Reduced stress levels	<b>-0.282**</b>	<b>-0.272*</b>	0.137	-0.263	0.095	0.081
Increased resilience	<b>-0.333**</b>	<b>-0.272*</b>	0.053	<b>-0.284**</b>	0.001	0.100

\* – significant for  $p=0.05$ ; \*\* – significant for  $p=0.01$

Moreover, the authors detected a correlation between training with a school or university team and the assessment of the impact of physical activity on the selected dimensions of employee well-being. Staff members who did sports when younger rated the impact of sports activity on improved concentration at work ( $r=0.309$ ), motivation ( $r=0.228$ ), work efficiency ( $r=0.234$ ), creativity ( $r=0.266$ ) and interpersonal relations ( $r=0.269$ ) higher than those who did not.

## DISCUSSION

The issue of commitment to the broadly understood employee well-being is relatively new to the HRM, which is becoming increasingly popular in the conditions of the employee market, ageing societies, and an associated drop in the number of workers in the productive age, representing a major challenge for the management. The area of well-being which is particularly ignored by the managers is physical well-being. The tendency to limit physical activity due to technological progress, increased automation of work, development

of transport means, and comforts of everyday life, allowing people to satisfy their needs at minimal physical efforts, is becoming a serious economically repercussive social challenge (Puciato, Rozpara, Młynarski, Łoś, Królikowska, 2013, p. 649–657). Scarce physical activity and unhealthy eating habits may become sources of economic burden posed by proliferation of diseases amongst employees, lowered productivity, and absenteeism (Ding, Lawson, Kolbe-Alexander, Finkelstein, Katzmarzyk, Van Mechelen, Pratt, 2016, p.1311–24; Burton, Conti, Chen, Schultz, Edington, 1999, p.863-877). Several studies found that reduced physical activity is significantly related to lower assessment of mental well-being (Norris, Carroll, Cochrane, 1992, p. 55-65).

On the other hand, studies confirmed a positive impact of physical activity programmes improving health at the workplace on employee productivity (Pereira, Coombes, Comans, Johnston, 2015, p. 401-412). It has been established that through health promotion, which involves elements oriented at the physical working environment and organizational structure in the workplace, it is possible to force productivity up and absenteeism down (Grimani, Aboagye, Kwak, 2019, p. 1676). Studies prove that sports and recreation have a major impact on motivation and job satisfaction. It has been demonstrated that satisfied employees are twice as productive and engaged than those who are not satisfied. Thanks to sport, they are more energetic and focused.

There is an increasing body of evidence that the promotion of physical activity in the workplace may have a positive impact on employee behaviour. In social terms, physical activity enables bonding while training in groups, facilitates adaptation, breaking down barriers, integration, and enriches human existence thanks to new ideas of active relaxation (Ważny, 2010, p.1-5). The mental benefits of physical activity may not be underestimated either. They release tension and adrenaline and restore emotional balance and mental comfort. It has been shown that high levels of physical activity have a positive effect on proper operation of the mind (i.e.: decision-making, planning, short-term memory), reduce anxiety, improve sleep quality, even when under stress (Kozdroń, 1998, p. 98-107).

The research studies of the authors confirmed the correlation between physical activity of university staff and the selected types of well-being. The strongest impact was recorded with respect to physical and emotional well-being. The respondents rated relatively high also the impact of physical activity



on selected effects of work, i.e. efficiency, creativity, motivation and concentration in the workplace. Therefore, an employer who encourages employees to be physically active can expect more satisfied, creative, motivated and efficient workforce. The positive impact of stimulating physical activity by the employer has also been evidenced by other research. It has been demonstrated that interventions related to the stimulation of physical activity and good nutrition in the workplace led to changes in employee attitudes to physical activity, which not only improved their physical and mental health, but also ensured a return on investment thanks to reduced healthcare expenses and general employee absenteeism (Van Dongen, Proper, Van Wier, Van der Beek, Bongers, Van Mechelen, 2011, p. 1031–1049; Pereira, Coombes, Comans, Johnston, 2015, p. 401–412). The lowest rated was the financial dimension analysed through the prism of satisfaction with received remuneration.

The implementation of practices oriented at enhancing well-being, in practice may encounter a number of difficulties. Quirk et al. emphasise that these barriers may be logistic, strategic or financial in nature. The researchers confirm that financial limitations and unwillingness to invest in health and good general sensation of employees constitutes a major barrier to the implementation of practices oriented at enhancing employee well-being. Whereas, amongst the facilitators of the implementation of corporate well-being, they enumerate: strategic approach to implementation, effective communication and advertising, creativity and innovativeness, conduct of needs analyses and evaluations before, during and post implementation (Quirk, Crank, Carter, Copeland, 2018, p.1362).

## CONCLUSIONS

The studies conducted amongst the university staff demonstrated impact of physical activity on individual well-being development. In the course of analyses, the hypothesis that there is a correlation between the activity of the respondents in their youth and their well-being rating was partly confirmed. This is because we found a relationship between the activity of the respondents in their youth and the rating of their physical well-being. However, no correlation was found between the activity of the respondents in their

youth and the rating of their social and financial well-being. The study further confirmed that there is a correlation between the time devoted by the respondents to physical activity at present and the rating of respondents' social well-being. It was established that the employees who spend more time on physical activity satisfaction are more satisfied with physical activity carried out with friends. The above findings confirm only some part of hypothesis 2, for the authors reported no correlation between the time devoted to physical activity at present and other forms of well-being. However, the study findings show that there is a correlation between the sports activity of the respondents in their youth and the evaluation of the impact of physical activity on their work performance. Those staff members who did sports in their youth rated the impact of sports activity on improved concentration at work, motivation, efficiency and creativity higher than those who did not. This allows us to positively verify hypothesis 3. Furthermore, it was observed that there is a correlation between the time devoted by the respondents to physical activity at present and their absences at work. It was found that the staff members who spend more time on physical activity demonstrated lower absenteeism.

Against a backdrop of the conducted analyses, the emphasis on employee well-being needs to be viewed now as one of the best investments a modern organization may make. Creating an optimal environment in which employees can fulfil their potential is one of the key factors in the long-term effectiveness of an organisation. Healthy and fit staff mean an efficient organisation. Nonetheless, the application of well-being as a tool to improve the use of employee potential requires a systemic approach. Meanwhile, in practice, in many organizations the implementation of the idea is built around single benefits. Well-being is more than a set of benefits. It involves real changes in the HR strategy, which will provide factual support to employee health. Well-being allows one to create a modern, human-oriented organization with culture favouring development and use of employee intellectual potential. The inclusion of such interventions in a corporate strategy has become a priority, above all, in the case of Generation Z entering the market – a generation for whom work itself is not an objective, but a mere means to achieve it. Therefore, an employer who wants to attract and keep staff within an organization must support employee well-being.

The analysis of the research findings shows that one should take into consideration also their limitations. Amongst the shortcomings are, first of all, high subjectivity of respondents' opinions based on their declarations rather than on the real level of physical activity of the respondents and the limited research sample size. Another problematic issue is the qualitative approach to the evaluation of the impact of physical activity on the well-being of employees. Only sociological, not clinical, research in this respect was conducted. Nonetheless, the research findings open new research areas. The research is to be continued in the future having regard for a more extensive and targeted research sample selection.

## REFERENCES

- Bombiak, E. (2020). Advances in the implementation of the model of sustainable human resource management: polish companies experiences, *Entrepreneurship and Sustainability Issues*, 7, 3, 1667-1687, DOI:10.9770/jesi.2020.7.3(16).
- Bouchard, C., Després, J.-P. (1995). Physical activity and health: Atherosclerotic, metabolic, and hypertensive diseases. *Res. Q. Exerc. Sport*, 66, 268–275.
- Brodersen, N.H. Steptoe, A. Williamson, S. Wardle, J. (2005). Sociodemographic, developmental, environmental, and psychological correlates of physical activity and sedentary behavior at age 11–12. *Ann. Behav. Med.*, 29, 2–11.
- Burton, W.N. Conti, D.J., Chen, C.Y., Schultz, A.B., Edington, D.W. (1999). The role of health risk factors and disease on worker productivity. *J Occup Environ Med.*, 41(10), 863–877.
- Diener, E., Eunkook, S., Shigehiro, O. (1997). Recent findings on subjective well-being. *Indian Journal of Clinical Psychology*, 24, 25–41.
- Ding, D. Lawson, K.D. Kolbe-Alexander, T.L. Finkelstein, E.A. Katzmarzyk, P.T. Van Mechelen, W. Pratt, M. (2016). The economic burden of physical inactivity: a global analysis of major non-communicable diseases. *Lancet*, 388(10051), 1311–1324.
- Dodge, R.; Daly, A. P., Huyton, J., Sanders, L. D. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2, 3, 222-235.
- Ehnert, I. (2009). Sustainable Human Resource Management. A Conceptual and Exploratory Analysis from a Paradox Perspective, pp. 45-49. Physica-Verlag A Springer Company: Berlin Heidelberg.
- Filipiak, M. (2000). Socjologia kultury, pp. 42-43. Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej: Lublin.
- Forgeard, M. J., Jayawickreme, E., Kern, M. L., Seligman, M. E. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1, 1.
- Grimani, A., Aboagye, E., Kwak, L. (2019). The effectiveness of workplace nutrition and physical activity interventions in improving productivity, work performance and workability: a systematic review. *BMC Public Health*, 19, 1676. <https://doi.org/10.1186/s12889-019-8033-1>
- Huppert, F. A. (2017). Challenges in defining and measuring well-being and their implications for policy. In: White, M. A., Slemp, G. R., Murray, A. S. (Eds.), *Future directions in well-being*, pp. 163–167. Springer : Cham.
- Kardas, J.S. (2020). Job Crafting in individualisation fields of company human resources. *Entrepreneurship and Sustainability Issues*, 7(3), 1937-1950.
- Kirkcald, B.D., Shephard R.J., Siefen, R.G. (2002). The relationship between physical activity and self-image and problem behaviour among adolescents. *Soc. Psychiatry Epidemiol.* 37, 544–550.

- Kozdroń, E. (1998). Oczekiwania i efekty regularnej aktywności ruchowej starszych kobiet na tle ich sytuacji rodzinnej. In: *Kobieta kreatorką aktywności sportowej w rodzinie*, Żukowska, Z., (Ed.), pp. 98–107. PSSK: Warszawa.
- Laukkanen, E., Shemeikka, S., Notkola, I.L., Koivumaa-Honkanen, H., Nissinen, A. (2002). Externalizing and internalizing problems at school as signs of health-damaging behaviour and incipient marginalization. *Health Promot Int.*, 17, 139–146.
- Liamputtong, P., Fanany, R., Verrinder, G. (2012). *Health, illness and wellbeing: Perspectives and social determinants*, pp. 23-34. Oxford University Press: Oxford.
- Norris, R., Carroll, D., Cochrane, R. (1992). The effects of physical activity and exercise training on psychological stress and wellbeing in an adolescent population. *J. Psychosom Res.*, 36, 55–65.
- Olive, R., Wheaton, B. (2020). Understanding Blue Spaces: Sport, Bodies, Wellbeing, and the Sea. *Journal of Sport and Social Issues*, 45, 1, 3-19, <https://doi.org/10.1177/0193723520950549>
- Pabian, A. (2015). Zrównoważone zarządzanie zasobami ludzkimi – zarys problematyki. *Zeszyty Naukowe Politechniki Częstochowskiej*, 17, 7–16.
- Pereira, M., Coombes, B.K., Comans, T.A., Johnston, V. (2015). The impact of onsite workplace health-enhancing physical activity interventions on worker productivity: a systematic review. *Occup Environ Med.*, 72(6), 401–412.
- Pereira, M.J. Coombes, B.K. Comans, T.A., Johnston, V. (2015). The impact of onsite workplace health-enhancing physical activity interventions on worker productivity: a systematic review. *Occupational and Environmental Medicine*, 72, 401-412.
- Pisanti, R., Van der Doef, M., Maes, S., Meler, L.L., Lombardo, C., Lazzari, D., Violani, C. Occupational coping self-efficacy explains distress and well-being in nurses beyond psychosocial job characteristics. *Front. Psychology*, 6, 1143.
- Pocztowski, A. (2016). Zrównoważone zarządzanie zasobami ludzkimi w teorii i praktyce. *Zarządzanie i Finanse*, 2(1), 303-314.
- Puchalski, K. Korzeniowska, E. (2013). Health promotion – The rationale and the obstacles in workplaces with different employment and financial soundness. *Med. Pr.*, 64(6):743–754, <https://doi.org/10.13075/mp.5893.20.13.0076>.
- Puciato, D. Rozpara, M. Młynarski, W. Łoś, A. Królikowska, B. (2013). Aktywność fizyczna dorosłych mieszkańców Katowic a wybrane uwarunkowania zawodowe i społeczno-ekonomiczne. *Med. Pr.*, 64(5), 649–657.
- Quirk, H., Crank, H., Carter, A., Copeland, R.J. (2018). Barriers and facilitators to implementing workplace health and wellbeing services in the NHS from the perspective of senior leaders and wellbeing practitioners: a qualitative study. *BMC Public Health*, 18, 1362, <https://doi.org/10.1186/s12889-018-6283-y>
- Seligman, M. E. P. (2002). Positive Psychology, Positive Prevention and Positive Therapy. In: C. R. Snyder, & S. J. Lopez (Eds.), *Handbook of Positive Psychology*, pp. 3-7. Oxford University Press: New York.

- Shin, D.C., Johnson, D.M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social indicators research*, 5, 1–4, 475–492.
- Stankevičiūtė, Ž., Savanevičienė, A. (2018). Designing Sustainable HRM: The Core Characteristics of Emerging Field, *Sustainability*, 10, 12, 4798, <https://doi.org/10.3390/su10124798>.
- Swarbrick, M., Yudof, J. (2015). Wellness in 8 dimensions, pp. 23-124. Freehold, NJ: Collaborative Support Programs of New Jersey.
- Trzebińska, E. (2008). *Psychologia pozytywna*, pp. 41-42. Wydawnictwa Akademickie i Profesjonalne: Warszawa.
- Turnell, A., Rasmussen, V., Butow, P., Juraskova, I., Kirsten, L., Wiener, L., Patenaude, A., Hoekstra-Weebers, J. (2016). An exploration of the prevalence and predictors of work-related well-being among psychosocial oncology professionals: An application of the job demands-resources model. *Palliat. Support Care*, 14, 33–41.
- Kodeks Pracy. Ustawa z dnia 9 marca 2023 r. o zmianie ustawy – Kodeks pracy oraz niektórych innych ustaw, Dz. U. 2023, poz. 641.
- Van Dongen, J.M., Proper, K.I., Van Wier, M.F., Van der Beek, A.J., Bongers P.M., Van Mechelen, W. (2011). Systematic review on the financial return of worksite health promotion programmes aimed at improving nutrition and/or increasing physical activity. *Obes Rev.*, 12(12), 1031–1049.
- Ważny, Z. (2010). Kilka uwag na temat aktywności fizycznej i kondycji człowieka. *Kultura fizyczna*, 9–12, 1–5.
- Wellbeing Indicator, <https://www.projektgamma.pl/strefa-wiedzy/wiki/wellbeing-indicator-raport-z-badania/> (accessed on 27 August 2022).