Akademija Akcija
Active development institute

How Do Stress, Physical Activity, Hydration, Well-Being, and Satisfaction Impact the Performance of Sedentary Employees?

Scientific monography

Zinka Kosec, PhD

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Monography Review of Stella Sekulić Kelhar

The scientific monography by Zinka Kosec, PhD is an interdisciplinary analysis of *sedentary work and lifestyle*, focusing on physical activity, *hydration, stress and satisfaction and their impact on work performance*, while combining insights from economics, psychology, kinesiology and organizational sciences. Through regression analysis, it presents models that predict employee performance, which contributes to the development of programs to improve working conditions at minimal cost.

The monographyy is valuable for its *practical applicability*, as the results are suitable for implementation in various organizations. The findings are in line with global research, which gives the monography international validity. Its interdisciplinary nature allows for a broader debate between scientific fields, and its applicability goes beyond theoretical frameworks. At the same time, it also offers solutions to improve the health, efficiency of employees and quality of life. The proposed models include reducing sedentary, managing stress and increasing satisfaction, which is beneficial for both recruiters and managers. The glossary of terms explains complex terminology, which increases the accessibility of the content to all interested readers or the public.

Although it raises new questions to examine the long-term effects of model implementation in different organizations, the monography is a *key resource for researchers, managers, and HR professionals* who are working to sustainably improve working conditions and further explore the field.

Stella Sekulić Kelhar is a dentist and PhD, employed at the National Institute of Public Health of Slovenia, where she heads the field of adult health care analytics and works on domestic and international projects. Her work includes analyses that support the formulation of effective policies in the field of adult care and the improvement of the quality of prevention and access to health services.
Prior to that, she worked at the University of Minnesota, Minneapolis, Minnesota, USA as a researcher, and a lecturer at the College of Cosmetics and Wellness Ljubljana as a mentor to students in the field of "health-related quality of life" *and microbiology. He uses his extensive experience in research and education and expertise to address challenges in healthcare and find solutions for quality of life in a changing world.*

Monography Review of Matej Plevnik

The scientific monography titled *"How do stress, physical activity, hydration, well-being and satisfaction ampact the performance of a sedentary employee?"* by Dr. Zinka Kosec provides a comprehensive examination of lifestyle factors and their influence on workplace performance, particularly among sedentary employees. The author meticulously explores individual aspects of lifestyle (stress, physical activity, hydration, well-being, and satisfaction), emphasizing their significance and reviewing existing scientific approaches to their study. These elements are subsequently integrated into predictive models designed to forecast workplace performance, further linking these findings to employee health and the sustainability of work environments.

The monograph's value lies particularly in its theoretical framework for addressing workplace performance and employee health. Its findings hold significant potential for practical application, enabling professionals such as practitioners, HR specialists, and managers to design workplace health programs and personal development initiatives for employees. Moreover, the monograph raises awareness of the importance of individual lifestyle factors and overall health in achieving optimal workplace outcomes. In the introductory chapters, the author skilfully synthesizes prior research, offering readers an organized collection of previous studies that form the foundation for her own investigation. By doing so, she contributes new insights to the ongoing discourse on employee performance. The monograph concludes with a pivotal finding: job and life satisfaction are identified as the key predictors of workplace performance among employees.

I extend my best wishes to Dr. Kosec for her continued scholarly and professional endeavours. By highlighting numerous open questions in this monograph, the author sets the stage for further research into the interplay between employee characteristics and workplace performance, ensuring that this important line of inquiry continues to evolve.

Matej Plevnik, PhD, is a university lecturer at the Faculty of Health Sciences, University of Primorska, where he primarily teaches in the kinesiology program. He is the author and co-author of numerous professional and academic publications in the field of kinesiology, focusing on lifelong human motor development. Dr. Plevnik has participated in various national and international projects, successfully translating their findings into professional practice.

He collaborates with multiple national institutions, including the Olympic Committee of Slovenia – Association of Sports Federations, the National Education Institute of Slovenia, and the Conservatory of Music and Ballet Ljubljana, among others. He also maintains strong connections with several higher education institutions abroad. Dr. Plevnik has served as a member and chair of numerous professional and scientific forums in kinesiology and sports.

Preface

Today's *sedentary workplace challenges* require holistic solutions that combine different fields of science. This monograph is the result of interdisciplinary collaboration and knowledge integration with a clear goal: to explore how the lifestyle of employees affects their performance and to offer practical models for improving their work efficiency.

This monograph explores the key relationships between physical activity, job satisfaction, stress, hydration, and employee well-being. It also presents how employers can use these findings to design programs that not only improve performance but also contribute to the health and sustainability of work environments.

One of the main peculiarities of the monography is its interdisciplinary nature. The combination of economic, psychological and kinesiological aspects provides an in-depth insight into the complex relationships between lifestyle and work performance, and at the same time offers concrete guidelines for implementation in organizations.

We hope this monograph will inspire researchers, HR professionals, and managers to apply the presented models in practice. We believe improving the working environment is possible, if we strive to integrate scientific knowledge and practical solutions.

The monography is also intended for students of these fields, and for this purpose, we have added a glossary of terms at the end, where we have also briefly explained the most common terms in the discussed field.

Thanks go to everyone who contributed in any way to the research and creation of this monography. Let it be an inspiration for further work and a better future for sedentary employees.

Summary

This cohort study aimed to analyse the relationship between workplace performance and employee lifestyle, focusing on physical activity, hydration, well-being, stress, and satisfaction. The goal was to develop a model to support employees in sedentary positions, which would allow them to optimize their performance with minimal financial and time investment.

The survey, which included 122 employees in sedentary positions, showed that job and life satisfaction are the strongest predictors of job performance. Hydration and well-being did not show a statistically significant association with performance, despite numerous confirmations from past studies.

Based on the results, models have been developed that predict up to 33% and 29% employee performance and can be integrated into corporate wellness programs or other training programs. The key components of the model are life and work satisfaction, physical activity, transport and sedentary reduction, and stress management. The proposed models enable employers to design effective strategies to promote health and productivity in the workplace with minimal financial investment.

Keywords: *Work Performance, Stress, Physical Activity, Physical Performance, Hydration, Well-being, Job Satisfaction, Life Satisfaction.*

1. Introduction

The scientific monography is multidisciplinary and belongs to the fields of economics, psychology, kinesiology and healthcare. This research focuses on human resource management (HRM) and the development of an optimal training model aimed at enhancing employee performance in sedentary workplaces.

The performance of an individual at the workplace has been a studied topic from various perspectives for many years. As a rule, research states that physical activity is a source of psychological benefits for employees (Musek, 2002; Abd, Rahmah & Zulridah, 2010; Tušak 2016; Meh, 2017) employees report better well-being in the workplace (Ronkainen, 2023). Physically active employees are less bored at work, as physical activity increases the overall activation of employees (Abd et al., 2010; Ronkainen, 2023). Therefore, it is necessary to be especially careful with employees who are basically deprived of physical activity, as is the case in a sedentary workplace.

The labour market is constantly changing, and the lack of adequate staff in recent years has spread to more and more areas of work, the ways of recruiting are changing, so employers' concern for employees is increasingly at the forefront (Ivanuša-Bezjak, Kosec and Kolenc, 2024). Nowadays, due to the pandemic and the rapid digitalization of all areas of our lives, the sedentary workplace has created a new, so-called sedentary lifestyle, which is already widespread in the world and in our country. Therefore, both research and practical questions arise as to how new social conditions and a changed lifestyle (with more sitting) affect an employee's work performance (Kosec, 2024).

In general, performance and success are an extensively studied concept and an important value in modern society. The word "success" originates from the Latin term "successus", meaning "outcome, result, achievement." It is derived from the verb "succedere", composed of "sub-" (under, after) and "cedere" (to go, to move), literally meaning "to go after" or "to follow." Through Medieval Latin, it transitioned into Old French as "succès," where it began to refer to favorable outcomes. By the 15th century, the word entered English and gradually evolved to its modern meaning of "success" or "positive achievement" (Harper, 2025). Success is as a trait, a characteristic of a successful person: business performance/work performance/performance at work. Therefore, performance is what is primarily measured in the work environment or from the employee's point of view, as business performance from the point of view of the organization.

Researchers use several terms for the success of an organization (*work performance, business performance, business success, business effectiveness*). Performance is related to what we want to achieve and answers the question of how the organization achieves its goals, which must be measurable. In this case, a higher degree of achievement of aims means greater performance in which all participants are interested (Abd et al., 2010; Ausat et al., 2023).

An organization's performance tells you whether it is doing the right activity to achieve its goals. It is measured as the ratio between the results, results of work and the set goals of the organization in a selected period. In fiscal terms, performance can be measured as the relationship between outcomes and income (Bijek, 2019; Hwang, 2022; Karub et al., 2023). The Anglo-Saxon tradition measured performance by profitability, earnings per share, dividend-to-earnings ratio, share-to-earnings ratio etc. In addition, we have a Germanic approach, which also characterizes the Slovenian profession and emphasizes the use of labor productivity, economy and profitability (profitability of capital and assets) as indicators of business performance (Tekavčič, 2002; p. 665), while the Japanese kaizen approach is also used internationally for individual performance (Kharub et al., 2023).

The results of the functioning of the organization and the behavior of the individual ensure the existence and development of the organization (Magretta 2000; Ausat, 2023). For such results, an organization must make appropriate use of available resources to generate results and create products appropriate to the needs and requirements of customers (Scott, 2000; Potočan, 2003; Baharum et al., 2023). The work performance of an individual within this organization depends on (Tušak, et al., 2022):

- abilities (what a person can do),
- knowledge and skills (what a person knows) and
- motivation (what a person wants to do).

These characteristics are evident in every aspect of work and exhibit a high degree of interconnection. The greater an individual's abilities, knowledge, and motivation, the higher their work performance tends to be.

Economic, managerial, and organizational scholars conceptualize business efficiency and effectiveness through varying lenses. Efficiency is typically defined as the number of resources consumed per unit of output, while performance reflects the extent to which an organization achieves its goals (Daft, 2000; Knight, 2017). According to Burnes (2004), efficiency also entails achieving specific goals within the constraints of available resources. Performance, however, represents the organization's capacity to achieve future objectives. Efficiency incorporates adaptability to current and future conditions, often measured by investments required to achieve organizational goals (Kajzer, 2004). Performance, conversely, evaluates the impact of the organization's actions on its environment, encompassing social considerations and organizational objectives, as well as the motivation of individuals (Nobari et al., 2019; Ausat et al., 2023).

Further distinctions between efficiency and effectiveness are categorized by Potočan (2003), who classifies various approaches based on criteria such as scope (e.g., narrow or broad), perspective (e.g., individual or interdisciplinary), and the level of treatment (e.g.,

holistic or segmented). Within this framework, efficiency is often considered a narrower concept, emphasizing the internal operations of an organization (Novak, 2022).

The following sections will focus on defining individual workplace performance and its relationship to the dependent variables under examination, including physical activity, physical performance, hydration, stress, well-being, and job satisfaction.

1.1 Work Performance

Our dependent variable in this study is performance at workplace or Work Performance. Performance, by definition, represents the ability of an organization to achieve the set goals (Mansur and Djaelani, 2023). Work Performance is assessed according to three main and eight side aspects (Wright et al., 2007):

1. The main ones are declarative knowledge (theoretical knowledge of procedures, implementation, management of something, etc.),
2. procedural knowledge (skills, abilities relevant to a particular job)
3. and motivation (to perform work).

These aspects are also broken down into mastering the performance of work, personal discipline, effort invested, facilitating performance in a team, managing additional work, communication in connection with work, leadership – social influence on others, and management, organizing, coordinating (Wright et al., 2007).

Therefore, performance is a necessary that an organization must achieve if it wants to survive in a competitive market environment. In addition to personal skills and professional competences, the head of an organization who wants to be successful must also consider the so-called social interest (considering the industry environment, institutions, state policy and interest groups, the internal environment of the company and the wider external environment) and the entire pyramid of social responsibility (Gamberger et al., 2007).

Defining and implementing an optimal strategy is a matter for stakeholders, especially owners, managers and employees. Therefore, employees also have an impact on the success of the organization with their abilities, so we can also think about the connection between human performance and organizational success (Šarotar Žižek, 2012; Faller, 2021; Kosec et al., 2022; Ausat, 2023). An employee is considered successful when he achieves or exceeds his goal. As a rule, an individual achieves guaranteed success if the following conditions are met (Uhan, 2000, p. 49): competence (to recognize the problems (profession) that arise on the way to the realization of the task, to know the ways to solve these problems – we help ourselves with technology, to have knowledge and competence for work.

Some personality variables, such as self-esteem, self-confidence, and job satisfaction, are also emphasized (Miller, Živnuška, & Kačmar, 2019). Lefcourt (Lefcourt, 2014), on the other hand, singled out the ability to control emotions as one of the most important factors of work performance, allowing for proper channelling of transparency (Kosec, 2024b).

Just like the success of an organization, the work performance of an employee is also characterized by internal and external factors. Internal factors include knowledge, experience, goals, self-motivation, self-esteem, place of control, mental attitude, and others (Ausat, et al., 2023). External factors include remuneration, organisational structure and culture, (flexible) working hours, working conditions, role conflict, precariousness and/or burden of the role, the demarcation between work and non-work, harassment, mobbing and even violence in the workplace (Milfelner, 2014). A person's thinking and emotion patterns are influenced by the internal and external environments in their lives, including their occupation and working conditions as some of the most important factors (Faller, 2021), which can negatively affect their lifestyle and work performance (Kosec et al., 2022). On the other hand, employee productivity is expressed through the increased effect of the employee's qualifications, his morale, the number of innovations, improvements in work processes and customer satisfaction. Managers also play a very important role in this, as they can significantly increase the productivity of most employees by motivating them (Ivanuša-Bezjak, Kosec, Kolenc, 2024). Criteria in this area can be revenue per employee, added value per employee, number of customers per employee, number of transactions per employee, etc.

Mansur and Djaelani (Mansur and Djaelani, 2023) cite the following output criteria or indicators to measure the outcome of HRM effects: increased loyalty of good associates, reduced absenteeism, productivity, product and service quality. Employee skills and performance can be measured by three indicators or areas of indicators, which are (Kaplan and Norton, 2000, pp. 136–138): employee satisfaction, employee retention in the organization, and employee productivity.

In recent proposals for monitoring business performance, the question of whether it is necessary to monitor economic performance at all has also been at the forefront, arguing that the achievement of non-monetary goals also ensures the achievement of economic or financial goals of companies (Kavčič et al., 2005). The answer to this can be seen in Denmark, a country that, with a "hygga" lifestyle, was the first country in the world to test its performance by the happiness of its citizens, not by the gross domestic product. Similar studies are also carried out by (Wiking, 2017)The New Economics Foundation, which designed *'National Accounts of Well-being'*, i.e. national well-being points that provide a proposal to guide modern society and people's lives. In this way, they encourage national governments to directly measure people's well-being, their experiences, feelings and ideas about how their lives are going. They emphasise that the systematic

collection of data on well-being, not only on the performance of organisations and society, provides a qualitative basis for action. So, it is not surprising that they also designed – 'Index human well-being and environmental impact" (*Ang*. *Happy planet index – an index of human well-being and environmental impact*), as the links between well-being and care for the environment have been revealed. More studies (Burke, 2008, p. 257; Bright, 2008; Judge, 2014, p. 199–221; Ausat et al., 2023; Kharub et al., 2023) notes that the main motivation for work is not earnings, i.e. employees do not change jobs primarily because of better pay, but rather workplace relationships, the possibility of promotion, and working conditions are more often exposed.

A feature of balanced performance measurement is that each aspect defines goals and indicators to measure them. However, because the goals of organizations are different, their measurement is also different. Also, the purpose of establishing organizations is different, so we cannot measure the success of economic organizations and voluntary associations, as well as state institutions, with the same criteria. This is the reason why every company that wants to be successful must first identify the key performance factors, strive to make them present in it, define goals based on them, and then indicators to measure the goals. Measuring business performance must therefore be the quantification of an organization's past business actions in a way that makes it possible to predict future results. For that we need additional, appropriately collected, classified, analysed, interpreted and communicated information and data (Gruban, 2010) to make balanced *scorecard model*.

This forms a system that directs the energy, ability and knowledge of the people in the organization to achieve strategic goals, which is more than a measurement system for determining work performance. The concept encompasses all key aspects of management and operations, business philosophy and a new approach in communication (Dacar, 2009, p. 57; Tawse and Tabesh, 2023). With the help of a balanced system of indicators, the importance of financial indicators is reduced, focusing mainly on those aspects that enable the company to achieve above-average results, such as: improving the knowledge of employees, innovative products, partnership with customers and suppliers, exploitation of unused internal resources, the ability to quickly and successfully respond to changed business circumstances (Kaplan and Norton, 2000, p. 4).

Measuring work performance is extremely versatile. It can be measured individually for everyone, collectively (for a working group of colleagues) or over all (for all colleagues in the organization). The results are determined in two ways, directly and indirectly. Direct performance determination means that we only consider the results of the work for which the individual was employed – for example, the number of sales of a particular product compared to the planned one (Kosec, 2024b). Indirect performance assessment means the determination of results that are not the direct work of the employee but nevertheless

affect the employee's performance through their activity – for example, the halt of production due to a lack of raw materials, which is a consequence of the work (in)efficiency of procurement in the company (Uhan, 2000).

1.2 Independent variables

In the study, the dependent variable of workplace performance was predicted using independent variables: physical activity and physical performance, stress, hydration, well-being and satisfaction (with work and life).

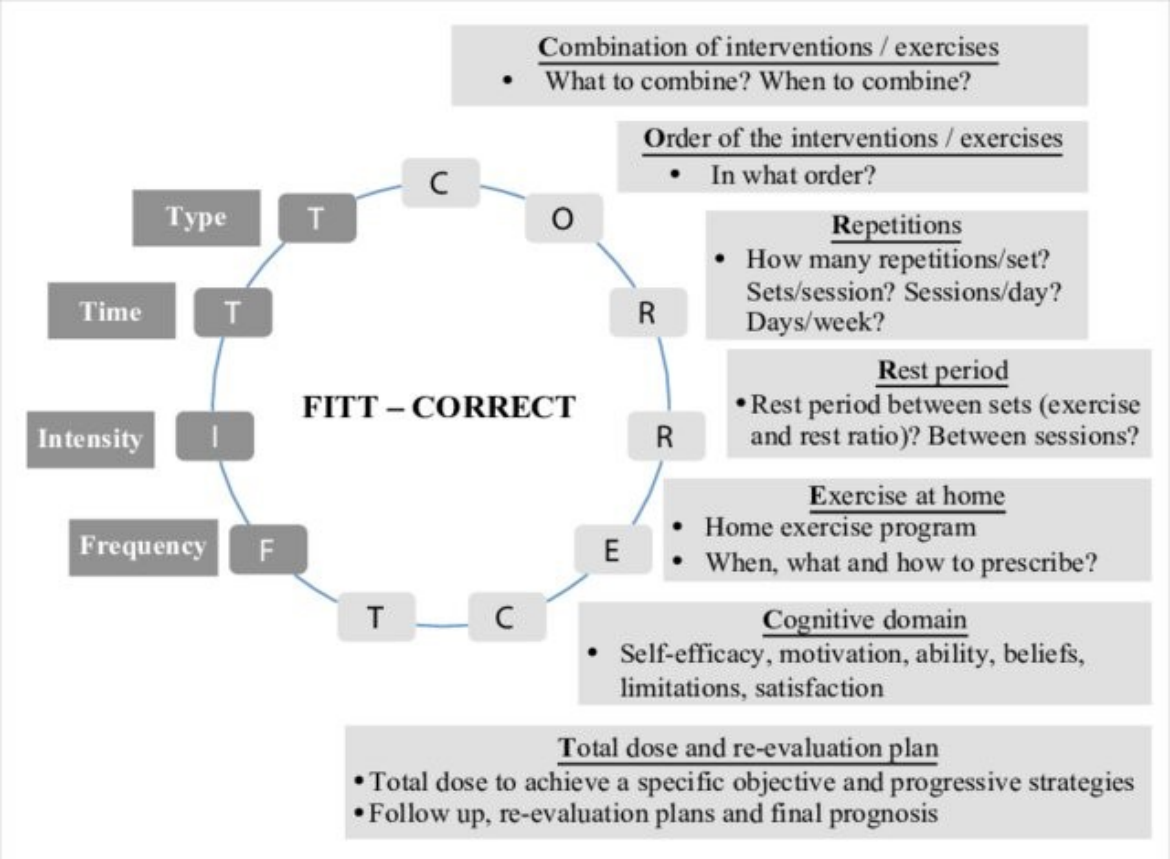
1.2.1 Physical activity

For the purposes of our research, we measured physical activity using a questionnaire for the assessment of one's own physical activity, where the respondent evaluates one's own physical activity of varying intensity (moderate and high), types of physical activity (recreational, occupation-related, transport...) and time of inactivity (sedentary).

The scientific and professional literature contains many studies that use a variety of terminology. The most common terms that describe physical activity are movement, physical activity, sport, sports activity, recreational activity, exercise, and the like. In our case, we will use the term physical activity because we believe that this term best describes the kinesiological part of our field of research. It is important to point out that physical activity can be associated with work, transport, daily household chores and, of course, with organized, structured forms of physical activity – exercise. At a time when most previously exposed forms of physical activity take place at low to moderate intensity, we want the intensity to be moderate to high when exercising, and therefore we follow the so-called FITT principle, which defines the frequency, intensity, duration and type of exercise, as presented in the figure below (Kosec, 2024b) and how to make it CORRECT by including different ways of physical activity (Adhikari et al., 2021).

Figure 1

Components and description of the FITT-CORRECT principle of exercise prescription. (Adhikari et al., 2021).



An active lifestyle makes an important contribution to maintaining or improving our health and prevents the occurrence of various health complications. According to the WHO (2010), physical inactivity is the fourth main risk factor for overall mortality (6% of deaths). The following criteria must be considered in determining sufficient and appropriate physical activity beneficial to health: content and form of activity, intensity, frequency and duration (Fras, 2002). The quantity of regular physical activity and health benefits are proportionally related (Kambič et al., 2023).

Physical activity restrictions

Many studies show that continuous periods of prolonged sitting (sedentary) are associated with the development of various health-related disorders and the development of chronic non-communicable diseases. Indirectly, sedentary may even affect general mortality as well as cardiovascular mortality (Ford and Caspersen, 2012; Schatz, 2022). Two decades ago, studies in Slovenia ("CINDI 2002/03" and "Physical/Sports Activities for Health") showed that physical activity (5 and several times a week, at least 30 minutes) is sufficient to protect health. walking or moderate or vigorous physical activity) 32.4% of adults in the age group 25–64 years. On the other hand, 16.8% of Slovene adults were not physically active. 35.5%

of the adult population of Slovenia was minimally physically active and 15.3% of the adult population was marginally sufficient to protect health (Pišot, Fras, and Kragelj-Zaletel, 2005). The "CINDI" report for 2020 shows that in the last 12 months in Slovenia there were 64.4% of active adults, of which slightly more men (65.9%) than women (62.8%), while as many as 20.5% of persons were not physically active in the last 12 months and half of them (10.6%) were not physically disabled (disability, injury, illness) (Zupanič and Korošec, 2021).

The data reflect that health-related behavioral styles change over time. A 2012 survey indicates that the proportion of adults aged 25–65 years engaged in total physical activity (i.e. activities at home, at work and for transport purposes in addition to recreation) increased significantly between 2001 and 2012. In 2001, half of the respondents were sufficiently physically active, and in 2012 almost 60 percent. For women, the proportion increased by 13 percent, and for men by almost 5 percent. While women are still lagging men, the gap has narrowed sharply. The share of respondents who walk at least five days a week for 30 minutes was more than a third in 2012, and the share is increasing with age (Vinko et al., 2018).

In recent years, the facts about the lifestyles of employees have been changing. In 2020, 80% of Slovenians (18–74 years) achieved significant health benefits, of which 84% were men and 77% of women in the 18–64 age group, and 79% of older men and 72% of older women in the 65–74 age group. The proportion of sufficiently physically active people declines with age in both population groups and increases with the level of education. In 2020, 50% of men and 44% of women in the 18–64 age group and 41% of older men and 43% of older women in the 65–74 age group achieved additional health benefits (Zaletel, Vardič and Hladnik, 2022).

The proportion of sufficiently physically active people declines with age and increases with the level of education. The share of the population of Slovenia who regularly walks in 2020 was 51% and slightly increased compared to the share in 2012. In 2020, however, the growing trend of regular walking reversed with age for the first time, with older adults walking less than younger adults on average. In 2020, the recommendation to walk regularly reached the highest number of people with tertiary education (53%). The largest decline in regular walking from 2012 to 2020 was recorded in terms of education in adults with primary school or less, and the largest increase in adults with tertiary education or more (Zaletel, Vardič and Hladnik, 2022).

A sedentary lifestyle is among the most important factors in the development of chronic diseases. These, with a high frequency of shorter sick leave, place a heavy burden on employers (Strojnik, 2019). Sedentary behaviour has a strong negative impact on health outcomes in older adults, including an increased risk of all-cause mortality, metabolic syndrome, high triglycerides, high blood pressure, overweight, abdominal obesity, mental disorders, etc. (Rezande et al., 2014).

1.2.1.1. Self-assessment of physical activity

The World Health Organization (WHO, 2010) states that physical activity is any bodily movement that is created as an expression of the conscious contraction of skeletal muscles and is reflected in an increased energy expenditure relative to the state of rest. According to WHO recommendations (2017), to maintain most of the health benefits in adults, the implementation of:

- 150 minutes of at least moderate physical activity per week, or
- 75 minutes of high-intensity physical activity per week.

This can be achieved by moderate physical activity for 30 minutes at least five days a week, or by high-intensity physical activity for 25 minutes at least three days a week. Of course, physical activity of both intensities can be combined. Physical activity, divided into several smaller sets per day, also counts. For children and adolescents, at least 60 minutes of moderate to high-intensity physical activity is recommended every day. At least twice, preferably three times a week, all age groups are also recommended to perform exercises to strengthen larger muscle groups. In the case where an individual is unable to meet the recommendations (health limitations), they should be physically active in accordance with their abilities and health condition, as any activity is better than inactivity (WHO, 2017).

The rate of total physical activity among adult Slovenians is increasing on average, but there is a marked inequality between groups with different socio-economic backgrounds. The proportion of adults meeting the WHO (2010) recommendations for physical activity, considering total physical activity, has increased for both men and women to around 60%, while the proportion of those who meet the recommendations for recreational physical activity is much lower, around 20% (Djomba, 2014).

Self-assessment of physical activity is usually covered by various questionnaires that are suitable for capturing the physical activities of respondents. In our case, when we talk about employees, it is important that the questionnaire covers physical activity both in the work environment and on the way to and from work and in the rest of the time. Based on these required parameters, and given that we focus on sedentary work, we chose the GPAQ questionnaire (Keating et al., 2018) as it covers all these parameters of physical activity, including sitting time.

1.2.1.2 Sedentary

In recent years, there have been several examples of Slovenian terms (sedentary, sedentary lifestyle, sedentary behavior, sedentary work) for the English term "*sedentary behaviour*", which refers to any behaviour during wakefulness that is characterized by low energy consumption. The terms sedentary describe the behaviors or actions of an individual in such a way that most of their work and tasks (work tasks, eating, leisure activities, transport) are spent sitting (Schatz, 2022).

Research on the topic of sedentary disease has confirmed that this is a risk factor for many diseases:

- cardiovascular illness (Ford and Caspersen, 2012),
- metabolic syndrome (Edwardson et al., 2012),
- diabetes type 2 (Thorp idr., 2010; Wilmot idr., 2012),
- certain cancers (Lynch, 2010),
- metabolic syndrome (Rezande et al., 2014),
- high triglycerides (Rezande et al., 2014),
- high blood pressure (Rezande et al., 2014),
- overweight (Rezande et al., 2014),
- abdominal obesity and mental disorders (Rezande et al., 2014)
- osteoporosis (Blatnik, Marinšek and Tusak, 2016),
- depression (Zhai, Zhang in Zhang, 2014),
- increased risk of all-cause mortality (Rezande, et al., 2014), and
- thus, for premature death (NIJZ, 2010; Chau et al., 2013),

Prolonged sedentary behavior can accelerate certain aspects of secondary aging, such as an accelerated decrease in bone mineral density, maximal oxygen consumption, and skeletal muscle strength and power (Booth, 2012).

In the elderly population, a sedentary lifestyle is even more pronounced, which further increases the risk of debilitating in old age. The number of older people is increasing, and the number of the "oldest" elderly is growing even faster. Older age is associated with physical and cognitive decline, which contributes to an increase in the number of frail people with increasing age. Frailty affects many areas, including muscle strength, mobility, balance, endurance, coordination, and in general, there is a decrease in the level of physical and functional activity (Strojnik, 2019).

Regular physical activity reduces morbidity and mortality due to many leading causes of ill health, especially diseases related to atherosclerosis (Kropej, 2007), has a positive effect on many factors and indicators of health, especially body fat content and body weight, and has a beneficial effect in terms of counteracting depression and anxiety (Fras, 2002).

A comprehensive review of the scientific literature on physical activity and mental health during covid-19 was conducted by Caputo and Reichert (2020). Through analyses of 41 articles, they conclude that most studies demonstrate a decrease in physical activity levels due to social distancing measures. On the other hand, these studies also indicate that physical activity generally helps to reduce the burden of mental health. Thus, research on the impact of physical activity has shown a link between job satisfaction and work engagement, self-esteem, and stress management (Meh, 2017; Pham et al., 2022).

1.2.2. Physical performance

Physical performance was measured by two health-related parameters of physical performance, namely:

1. Estimation of maximum oxygen consumption, and
2. grip performance measured with a dynamometer.

1.2.2.1. Estimation of maximum oxygen consumption (VO_2max)

Maximal oxygen consumption (VO_2max) is the maximum amount of oxygen consumption in millilitres per minute per kilogram of body weight (Smirmaul et al., 2003; Nileshkumar et al., 2022; Gnanadesigan, Vijayalakshmi, 2023). Higher values of maximum oxygen consumption indicate better physical fitness. It can be achieved during physical exertion and is manifested through the integrated capacity of the pulmonary, cardiovascular and muscular systems to receive, transport and use oxygen. By measuring oxygen consumption (the amount of oxygen that the body consumes during a selected physical activity), we also indirectly measure maximum aerobic capacity (the maximum oxygen consumption that an individual can achieve during intense physical activity); such measurements can be used to assess an athlete's physical fitness (Lenasi, 2011; Wulandari, Kaidah & Huldani, 2022). Precise values can be obtained by ergo spirometry measurements, while according to the Jackson formula, it is possible to obtain an estimate of the maximum oxygen consumption (Jackson et al., 1990). We used the latter method for the purposes of the research.

1.2.2.2. Grip performance - dynamometry

Relatively accessible evaluation of physical performance levels is also quite often performed through the measurement of grip capacity – dynamometry. According to studies, this correlates quite highly with overall physical strength (Oksuzyan et al., 2017). It is used as part of a test battery to determine functional inferiority (de Melo Costa et al., 2022; Soares et al., 2022; Database Consortium, 1996; Oksuzyan et al., 2017).

In dynamometer testing, the maximum possible force is mobilized when the fist is clenched. It has been found (Leong et al., 2015) that the grip capacity is inversely related:

- mortality due to cardiovascular diseases,
- myocardial infarction,
- strokes, and
- Other systemic diseases, such as neurological diseases.

The tests are usually performed with the dominant (stronger) hand and are expressed in kilograms. Reference values depend on the gender and age of the respondent. Kilograms are often used for ease of intelligibility, although grip strength is technically measured as a force and could also be expressed in newtons (N). The dynamometer we used in the study showed kilograms, so we also used kilograms as a unit.

1.2.3 Hydration

Water is the largest part of the human body, accounting for an average of 60% of body weight (Benelam and Wyness, 2010). The water balance in the body is constantly changing due to water intake (drinking and diet) and trans epidermal, respiratory, fecal and urinary losses, with an average daily water turnover of 3.6 ± 1.2 l/day or 2.8 to 3.3 and 3.4 to 3.8 day/1 respectively (Perrier et al., 2021). Only a small amount of water is produced in the body (metabolic water, 0.25 to 0.35 l/day (Johanson et al., 2017; Perrier et al., 2021). The human body has a limited ability to store water; Therefore, water losses must be compensated daily. As a factor in the body's response to a given load (e.g. a selected work task at the workplace), the state of hydration of an individual is also (Murray, 2007). Hydration is therefore an extremely important factor in everyday life, physical activity, as well as in pathological conditions (Adan, 2012; Wang and Cao, 2019; Lenasi and Šijanec, 2023; Perrier et al, 2013) and work environments.

Greater body water loss occurs in persons who exercise or work in hot and/or humid environments with limited access to water, such as endurance athletes, military personnel, and some factory workers (Perrier et al., 2014), but less so in sedentary positions. Lost water should be constantly replaced, especially with drunk liquids. No matter how mild dehydration is, it is a desirable condition, since there is an imbalance in homeostatic function. As a result, dehydration can have a negative impact on cognitive functioning, not only in groups that are more sensitive to dehydration, such as children and the elderly, but also in adults (NIJZ, 2015), especially working individuals. Therefore, it is important to pay special attention to this in a sedentary workplace environment, as cognitive functions are usually particularly important.

Losing two percent of body weight reduces our working capacity by up to 20 percent, and losing five percent of fluid reduces our ability to work by 30 percent. If the loss is greater than ten percent, it can pose a mortal danger to us (Wang and Cao, 2019; Podlogar, 2016). In sedentary jobs, for example, dehydration impairs performance in tasks that require attention, psychomotor and immediate memory skills, and assessment of subjective state by two percent. In contrast, the performance of long-term and working memory tasks and executive functions is more preserved, especially if the cause of dehydration is moderate physical activity (Adan, 2012). To avoid this, individuals in work environments may recognize early signs of dehydration, such as: headache, fatigue, loss of appetite, dry mouth, rapid pulse. Sometimes, however, we can also notice reduced skin tension or elasticity and reduced moisture of the mucous membranes. Since thirst is a subjective sign, it should not be relied upon, as the environment, age and gender affect its mechanism (NIJZ, 2015).

1.2.4 Well-being

English wellbeing or well-being refers to a sense of well-being of an individual, and activity in this area is called wellness. Dunn (1959) composed the word wellness from two words: "well-being" and "fit-ness". Thus, the word wellness encompasses two movements that developed after World War II in the United States, as part of a new global thinking in the field of health (Gojčič, 2014). The functioning of both the organization and the individual who cares about the well-being of the workplace is called corporate wellness, better known in the world as "corporate wellness". Organized well-being care is typically shaped by organizations through corporate wellness programs, which are designed for the entire year and are intended to cover all areas of well-being: physical, emotional, mental, social, and spiritual (Kosec, 2020). Research shows significant life benefits (advantages) for people with a high well-being coefficient.

The impact of employee well-being in the workplace has received increasing interest in recent years (Rugger et al., 2020; Clark et al., 2020; Šarotar Žižek, 2022; Kersley et al., 2006; Topp et al., 2015). There are many researchers and achievements, we highlight the essential ones.

Research on the well-being of employees in organizations only developed a few decades ago. For example, research on the link between employee well-being and the cardiovascular system has shown that physical activity and psychological well-being can be seen as a source of effectiveness (Patterson et al., 2018; Wu et al., 2020). Over the past two decades, major developments in the economics of subjective well-being have been reflected in the large number of published studies reporting on quality of life and its determinants (Diener and Seligman, 2004; Spagnoli et al., 2020; Hupert, 2014; Huang et al., 2021; Abdin et al., 2018;

Landry et al., 2017; Diener, 2018). Among the constituent components of subjective well-being, life satisfaction has been recognized as a distinct construct that represents a self-assessment of the quality of an individual's life as a whole (Ruggeri et al., 2020). Life satisfaction is a self-assessment of an individual's overall quality of life (Huang et al., 2021) and is one of the many overlapping aspects of subjective well-being (Diener, Lucas, & Oishi, 2018). Life satisfaction is associated with self-perception (Miller et al., 2019) and is an important predictor of employee productivity in sedentary jobs (Rosenkranz et al., 2020; Yen et al., 2017; Lee et al., 2022; Choi et al., 2021). In doing so, the authors mention some methodological dilemmas, such as different measurement scales (Acerman et al., 2018) and empirical validations (Rabindra and Lalatendu, 2017), as well as the calculation of different distributions by supplementing the data (Evans et al., 2021) as well as different variations of satisfaction questionnaires (Smith, 2020). On the independent variable of satisfaction (both life and work), our research best coincides with other research in this area, as we found a link between job performance and job satisfaction and life satisfaction.

Programs for training employees for self-regulation of well-being, abroad the so-called "wellbeing management", which are recognized as programs for maintaining health and programs for (self-)help, can also contribute to well-being (Donaldson et al., 2021). A general model for optimal well-being for an individual was presented by Compton and Hoffman (2019) in the ninth chapter of their book Positive Psychology: The Science of Happiness and Flourishing. The so-called "Flourishing" or Slovenian flourishing is still a new concept in our country, but it represents the care that we take care of people so that they can flourish, which can be understood in terms of support and development of individual potential. Well-being supports people's willingness to work creatively and collaborate, leads to the objective well-being of the organization and its members. Therefore, it is useful and important for organizations to monitor well-being at the organizational level. This will make well-being a central topic in the creation of management policy. Here we would like to mention the speech of Michelle Howking (2016), Director of Wellbeing Management of Google employees, which she gave at the Global Wellness Summit: "The basis for the design of corporate wellness programs at us is the answer of employees to the question of what it means for you to have a full/fulfilled life." that are on the market. However, if we want to attract and retain the best staff, we must take care of them accordingly.

This is achieved through co-worker-friendly behavior, which further results in employee well-being and satisfaction. These are fundamental to the quality performance of the work of employees in organizations, especially for employees in sedentary positions, who often perform cognitive tasks that require a clear mind (Wo et al., 2020; Clark et al., 2020; Huang et al., 2021). Colleagues can also be offered support in coping with situations, as the individual feels the ability to manage a demanding environment and at the same time the ability to choose or design personally appropriate frameworks (Šarotar Žižek and Mulej, 2023). These contents tend to have an extremely positive impact, not only on the

employee's well-being, but also on their confidence in the next assigned work assignment (Filosa and Alessandri, 2023).

An extremely extensive (for Slovenian conditions) research (Šarotar Žižek, 2012) was conducted on a sample of 2409 organizations (of which 1,510 micro and 20 small, 552 medium-sized and 347 large), which focused on psychological well-being in relation to the performance of the organization and found a positive correlation. This is explained as a chain reaction, when well-being has a positive effect on the human resources policy of the organization, which in turn has a positive effect on the growth and development of employees. As a result, well-being was recognized as a positive factor influencing the financial performance of an organization. So, well-being is not only valuable for the sake of well-being itself, but it can also be economically beneficial. These facts suggest that monitoring well-being at the organizational and state level is necessary to make well-being a central topic in policymaking and accurately measuring this is a basic commitment of that policy (Diener and Seligman, 2004).

For guidance on creating a well-being-focused workplace, one would likely refer to Diener and Seligman (Diener and Seligman, 2004), the most cited authors in this field with numerous scientific studies. They described a workplace where employees are supposed to feel good. They highlighted the qualities that employees should have their own opinion, the opportunity to use knowledge, diverse tasks, material security, support from superiors, respect and high status, mutual contacts, good remuneration and precisely defined requirements and information.

Employee well-being can be enhanced through training programs focusing on soft skills such as communication, motivation, and stress management. These programs provide employees with a sense of control over their work situations, leading to increased internal calmness. This makes it easier for them to focus on work tasks (Kharub et al., 2023; Kosec et al., 2022; Abdin2018).

1.2.5 Stress

For the first time, the term was used in 17th-century English to describe a nuisance, pressure, torment, and difficulty. In the 18th and 19th centuries, the general meaning of the word stress changed – specifically, it meant a force, pressure or a strong influence acting on an object or person. This definition also meant that an external force arouses tension in the object, which in turn tries to maintain its inviolability by resisting the power of this force (Blatnik, Marinšek and Tušak 2016).

The effects of stress were shown in the first model through three phases (Selye, 1956): the

alarm response, the stage of resistance and adaptation, and the stage of exhaustion or burnout. The model explained many important physiological processes, so it played an important role in understanding stress-related diseases.

A good decade later, Holmes and Rahe (1967) believed that life changes or events (positive or negative) are stressors that burden a person's adaptive capacities and require physiological and psychological efforts. They believed that exertion increases the chance of developing health problems such as somatic diseases, anxiety, anxiety and depression. Also worth mentioning are the transactional model of Lazarus and Folkman (1984), the inverted U curve model (Jones, 1997), the catastrophic model (Hardy and Fazey 1997), and the reversal theory (Kerr, 1997).

Stress manifests itself in different ways, so the symptoms of stress can be divided into:

- physiological,
- emotional,
- intellectual-mental and
- behavioral.

The physiological response observed in stressed individuals includes (Tehreem and Parveen, 2023; Meško, Podbregar, and Karpljuk, 2011; Tušak, 2016):

- decreased blood flow to the brain and gastrointestinal tract,
- increased blood flow to the muscles,
- faster breathing,
- goosebumps,
- dilated pupils,
- coarser and less precise motor skills,
- and a focus on the run or fight response.

These *responses can be reduced through regular physical activity, as active individuals manage stress better* because physical activity is a buffer during stressors, such as in the workplace. At the same time, it is also worth mentioning that physical activity also has a positive effect on the quality and length of sleep, which in turn contributes to better physical and cognitive regeneration (Meh, 2017).

However, it is important to note that we know two different sides of stress – distress and eustress (Tehreem and Parveen, 2023; Andayani and Fakhrudin, 2023). Distress is experienced by an individual due to excessive workload, monotonous tasks, excessive pressures, etc., which can lead to a decline in performance, performance. It can also cause headaches, indigestion and the like. Eustress is described by individuals as a pleasant, exciting, stimulating, and inspiring feeling, and is felt when the coping abilities are greater than the demands (Anwar et al., 2023; Tušak and Masten, 2008b; Anjum, Zhao, & Faraz, 2023), some also describe this state as a "flow" state.

The workplace is often a focus of harmful stress, most likely caused by a combination of many factors (Andayani and Fakhrudin, 2023; Tušak and Masten, 2008b). Stressors are among the primary factors influencing immune system function. In addition, the experienced stresses also affect the emergence of other negative phenomena, such as violence, addiction (drug use, alcohol consumption), suicidality, traffic accidents, etc. On the other hand, physical health problems put a mental strain on a person (worries about health, illness, accidents, physical fitness and physical appearance are among the main sources of stress in modern times). From the results of the research, it was found that stressful experiences (e.g. watching a scarecrow) affect the immune mechanisms after just a few minutes (Musek 1999, pp. 28–32). Other research (Šarotar Žižek, 2012; Anwar et al., 2023; Anjum et al., 2023), however, found that individuals who feel good at work manage stressful situations more effectively and with better outcomes.

Today, an extremely popular stress reduction technique is mindfulness. Černetič (2011) describes mindfulness as an individual's non-judgmental, accepting awareness of their experience in the present moment. From agent times, certain religious and spiritual traditions have helped people to strengthen mindfulness and thus live everyday life more easily and live a *healthier and more fulfilled life*. Mindfulness is also used in psychotherapy. There it acts as one of the common factors of all therapeutic orientations. The integration of mindfulness into the psychotherapeutic process is possible at the level of therapeutic philosophy, at the level of therapeutic interventions, and as an aid for the therapist and a catalyst for the therapeutic relationship. Mindfulness has long been used by people in a religious context, to help cope with the severity of life's problems (Germer, 2005).

Exploring mindfulness as a personality trait shows that even people who have never practiced meditation (which is often used to develop mindfulness) are mindful to some extent. This is not surprising, since mindfulness is supposed to be a universal phenomenon and is supposed to represent "only" a specific way of directing attention (Kabat-Zinn, 1990). The capacity for mindfulness is thought to be a general, inherent capacity of the human organism (Brown and Ryan, 2003; 2004; Wagh-Gumaste, 2022).

Crane (2008), who designed programs for mindfulness in the work environment, argues that through the elements of mindfulness in our minds, we can build a new perspective and carry out a personality transformation that increases our resilience to stress.

Similarly, Beitman and Soth (2006) conceive of the activation of self-observation as a core process in psychotherapeutic orientations. They state that self-observation includes an individual's active understanding of their own inner self (intentions, expectations, emotions, cognitions and behaviors), the ability to introspect their own thoughts, and the recognition of the relationship between themselves and their social and cultural environment.

Acceptance and commitment therapy (ACT) is also worth mentioning (Hayes, Strosahl and Wilson, 2003). In this therapy, one of the main components are elements of mindfulness. From a theoretical and philosophical point of view, Hayes (2016a) explains that "ACT" is a unique psychological action with a client that uses elements of acceptance and mindfulness. Together with a commitment and strategy of behavior change, it increases the psychological adaptability of the individual. This can only be achieved if we fully perceive and accept the current situation. Based on this, we can only determine what a certain situation can offer us, change, what we need to persist in and how to stay true to our own values. The basic concept of "ACT" is that much of the suffering is psychological in nature due to the gap between language and thought, and the (constant) control over behavior.

A study by Bach and Hayes (2002) in people with psychosis, where individuals who received "ACT" therapy were hospitalized half as many times as the control group within 4 months. I find the explanation of the results interesting, which proves the effectiveness of "ACT" therapy, since the symptoms in individuals in the therapy group were even more extensive, but the participants attached less value to them.

1.2.6 Satisfaction

Satisfaction is an individual's response (emotional or cognitive) and exposes the chosen focus (expectations, experience, etc.) to make the selected response(s) appear at/after a certain time (Ahmad et al., 2018; Margolis et al., 2019). In our research, we focused on job satisfaction and life satisfaction.

Various studies (Miller, Zivnuska, & Kacmar, 2019; Diener, Oishi, & Tay, 2018; Donaldson and Donaldson, 2020; Kosec et al., 2022) analysed factors related to life satisfaction and well-being and investigated what makes people happy. They studied the impact of age and body composition of office workers, as well as the potential for stress resistance and resilience in different occupations. In such studies, the authors have always mentioned methodological limitations that are relevant to measurement scales, validation of empirical models, statistical power analyses in behavioral science, and other principles and applications of qualitative research.

Judgments about life satisfaction are mostly based on an individual's subjective criteria, rather than necessarily reflecting external conditions (Diener, 2018). However, the assessment of life satisfaction can be slightly influenced by mood and context, since life satisfaction is a time-stable construct. Estimates of life satisfaction are generally associated with other stable traits. Empirical relationships are consistent with the theory of fundamental self-evaluations, which shows that dispositions are important explanatory variables for predicting various forms of subjective well-being (Miller, Zivnuska, & Kacmar, 2019; Donaldson & Donaldson, 2021).

1.2.6.1. Job Satisfaction

Job satisfaction is the result of a person's attitude towards work and factors related to his work and life in general and is also closely related to work performance. Several studies have shown a positive correlation between job satisfaction, organizational climate, and overall performance (Donaldson and Donaldson, 2020; Miller, Zivnuska, and Kačmar, 2019; Kosec et al., 2022; Šarotar Žižek, 2012; Diener and Salingman, 2004).

Job satisfaction could be linked to a personal view on work. It is a desired and positive emotional state, which reflects an individual's work, experiences and experiences in their work. Job satisfaction is often mentioned in various studies as an important factor for the success of an organization (Eubanks et al., 2022; Kuruüzüm, Çetin, and Irmak, 2009, p. 6; Nadiri and Tanova, 2010, p. 35; Øgaard, Marnburg, and Larsen, 2008, p. 663; Vandenabeele, 2009, p. 13; Tsui, Lin, and Yu, 2013, p. 444).

These connections are reflected through the content of work situations, the workplace, organizational capabilities and the adaptation of these to the individual's needs and abilities. An organization that wants to be considered successful and efficient, in addition to achieving business results, satisfaction of service users and a positive impact on the wider environment, must also be proud of employee satisfaction.

Satisfied and highly motivated employees work better, are more productive, and thus contribute to the success of the organization. A healthy working environment in which individuals feel good, are respected and valued also contributes significantly to increased satisfaction and quality of work. Job satisfaction is important both and as a factor that influences other attitudes and outcomes of the individual and the organization. Given that work is an important area of an individual's life, it is natural to expect that job satisfaction affects life satisfaction; Job satisfaction as a specific area of life contributes to life satisfaction (Tušak et al., 2008a).

It is only in recent times that the research of positive aspects of human nature and life in psychology has really begun to gain ground, and today we are rightly talking about the trend of positive psychology, which is interested in mental health and satisfaction, for the psychological aspects of quality of life, positive emotionality and experience (positive affect, subjective well-being, wellness, life satisfaction, well-being, good life, A state of overflowing happiness, etc.) and the corresponding personality dimensions (happiness, flow/, optimism, hope, modesty) (Musek 2005, pp. 174–175; Musek and Maravič, 2005) or values (Kosec, 2022).

Our chosen values are something to which we recognize a higher principled value and, as a result, we prioritize the content that supports them in our lives. We also prefer to hang out

with people who share the same values with us. In work environments, we also work better with colleagues with similar values and achieve higher goals (Musek, 2002). When the values of the organization are aligned with the values of the individual, he acts confidently, because he believes in himself that he is doing exactly what you believe in, so he makes decisions much easier and faster, which is of utmost importance in key moments (Kosec, 2022). At the same time, the individual acts in accordance with his personal convictions, so he does not have conscientious objection in various situations, and as a result, he reaches the set goal faster – that is, he is more successful. For organizations, especially in more demanding times (health, economic, HR, etc.), it is extremely important that employees have common values, because then employees prefer to cooperate with each other and also achieve higher results.

1.2.6.2. Life Satisfaction

Life satisfaction is understood as "a person's cognitive and emotional assessment of his or her life" (Diener et al., 2002). Life satisfaction, meaning in life, and hope are some of the most important factors influencing an individual's thoughts and feelings in challenging situations (Miller et al., 2019). Numerous studies state that individuals who are more satisfied are also more successful, in various areas of life. Satisfaction is associated with successful outcomes. The link between satisfaction and successful outcomes does not only come from the fact that success contributes to greater individual satisfaction, but also positive emotional states stimulate individual success. Positive moods and emotions lead people to a way of thinking, emotion, and behavior that encourages the strengthening of their own abilities, possibilities, and that’s how getting closer to the set goals (Harakiewicz et al., 2002; Elliot and Trash, 2002; Lyubomirsky, 2001; King and Diener, 2005).

An individual's subjective experience of satisfaction is thus reflected in positive responses on three bases and basic life domains: work, social relationships and health. Individuals who are more satisfied in their lives not only achieve higher efficiency but also receive other advantages or benefits in their workplace, including achieving more important, more autonomous and more diverse jobs, earning more, and showing fewer unproductive behaviors and burnout at work because of workload (Tušak et sl., 2008a).

2. Subject and problem

A study on independent variables (physical activity and performance, stress, hydration, satisfaction and well-being) examined their impact on work performance in a sedentary workplace. The results can help HR professionals and managers in creating trainings, especially in the field of health promotion, corporate wellness and soft skills, which have been mandatory for employers since 2011 according to the Occupational Health and Safety Act (ZVZD-1, Official Paper of the Republic of Slovenia, 43/2011), but much earlier in European Union with directive (89/391/EGS) dated in 1989.

This primarily enabled managers to make more rational decisions about investing in employees in these areas (predictive variables), as they can evaluate the impact of these areas according to the expected performance of the employee. Leaders want insight into how it will affect the employee's performance before introducing the selected training in their organization.

Predictive variables are selected meaningfully, considering rationality (time and resources) and in such a way that they can be implemented in the widest range of organizations with predominant sedentary positions. Sedentary jobs were chosen because the number of sedentary jobs has been increasing tremendously in recent times due to digitalization.

Concern for the performance and at the same time the overall well-being of employees is also interesting in view of the high unemployment in the recent period. We are currently monitoring a period of staff shortages at various levels in organizations. Unemployment stood at 3.9% in the third quarter of 2023 (Osvald Zaletelj and Vratanar, 2023), so it seems important for employers to take care of existing employees, as they have a hard time getting them on the market, and there is also a cost and time to onboard each new employee when the new employee is not fully operational. In 2024, the unemployment rate in Slovenia increased slightly compared to 2023. In the third quarter of 2024, it stands at 4.4%, a slight increase from previous periods. The total number of unemployed in this period is 46,000 persons, with men predominating with a 55% share, which is still low unemployment (Employment Service of the Republic of Slovenia, 2024)

The key research question was to determine the characteristics of the relationship between lifestyle factors (physical activity, physical performance, satisfaction, well-being, stress and hydration) and the work performance of employees in sedentary workplaces, to design a comprehensive training model for employees in sedentary workplaces.

3. Purpose and aim

To formulate the purpose and goal of the scientific monography, we followed the needs of work organizations and the trend in society, which is reflected in the increase in the number of sedentary positions. Based on the research already done and the indicated needs, we came to the following purpose and goal of the work.

3.1 Purpose of the work

The main purpose of the entire research is to evaluate the correlation between an individual's performance in the workplace and his/her physical activity and physical performance, body hydration, satisfaction, sense of ability to cope with stress and well-being at the workplace to create a comprehensive model of training and prediction of employee performance with a focus on sedentary workplaces.

3.2 Aim of the work

The primary aim of this research is to determine whether a sedentary employee who engages in physical activity, maintains adequate hydration, effectively manages stress, experiences workplace well-being, and expresses high job satisfaction performs more successfully at work. Our goal is also to determine which variable has a stronger impact and based on this to form the ideal content ratio for training in the model.

Through the research, we pursue the following aims:

A1: To check the correlation between individual factors (physical activity and physical performance, hydration, stress, well-being and satisfaction) with work performance.

A2: Establish a model of the total and individual influence of the mentioned predictive factors on the criterion/dependent variable (work performance).

4. Hypotheses

From goal A1, we derived hypotheses H1-H5, and from goal A2 hypothesis H6.

We have formulated the following hypotheses:

H1: An individual who takes care of their own physical activity and is more physically capable is more successful in the workplace.
H2: An individual who is properly hydrated is more successful in the workplace.
H3: An individual who feels good in the workplace is more successful in the workplace.
H4: An individual who successfully manages stress loads is more successful in the workplace.
H5: An individual who experiences a high level of life and job satisfaction is more successful in the workplace.
H6: With the help of selected variables that define lifestyle, we can statistically predict an individual's performance in the workplace.

5. Methods

The theoretical section provides a comprehensive review of relevant literature in the field. We focused on the definitions of variables and checked what research had already been done in this area. We reviewed scientific papers in databases such as Web of Science, Google Scholar and PubMed. While searching for materials in the databases, we used the following search strings: Work performance, Sedentary Lifestyle, Sitting Workplace, Physical Activity, Physical Activity at Work, Job Satisfaction, Work Satisfaction, Wellbeing at Work, Workplace Wellbeing, Stress, Stress at Work, Hydration and Hydration at Work, Corporate Wellness, Corporate Wellness Program, Healthy Work Environment and Health Promotion. We also studied theory from relevant scientific journals, books and other literature in various databases. We also examined a variety of measuring instruments already in use.

We conducted a cross-sectional cohort study that was conducted from October 2018 to April 2019. The inclusion criterion was that the respondent sits in the work organization for at least 85% of their working time. The exclusion criterion is drug therapy that could affect the outcome of the results (antidepressants, diuretics...) and extreme working conditions (e.g. temperature extremes). The research was approved on 6 March 2018 by the Commission for Ethical Issues in the Field of Sport, University of Ljubljana, Faculty of Sport under the number 5/2018.

The study focused on sedentary employees who use a variety of digital tools in their work. Our starting point was that the workplace has typical work tasks that have time, quality and other norms (defined formally or by the expectations of colleagues, superiors, their own) and that an individual can be successful.

Statistical analysis of data was performed in IBM SPSS 25 (SPSS Inc., Armonk, NY, USA). The descriptive variables were represented by frequencies and frequency fractions, and the numerical variables by the mean and standard deviation.

5.1. Data collection

Data collection was carried out in organizations that have such jobs (banks, accounting firms, management companies, educational institutions, tourism organizations, surveying companies, personnel organizations, administrative units, etc.) after prior agreement with the HR department and the approval of the management for the implementation of this task.

The questionnaire was anonymous. Since the research also included measuring the grip capacity with a dynamometer, we first performed this with everyone so that they could then fill out the entire questionnaire in peace and anonymity. They were deposited in a common place, and when they had all finished completing, they were picked up. Respondents participated voluntarily. They were informed in advance of the content of the survey and its objectives. In the first clench test, they were also presented with average scores for their age and gender.

It was particularly important for respondents to be assured that questionnaire analyses would not be carried out individually or in groups for organisations, but for all respondents together. Thus, in addition to respondents, we also ensured anonymity to organizations that entrusted us with access to their employees.

5.2. Instruments

Performance in the workplace

Employee performance was checked using the **EPT (Employee performance template) questionnaire** issued by Capital Associated Industries - CAI (2011) and validated by Rabindra and Lalatendu (2017). The tool was chosen because it is appropriately positioned for a sedentary workplace and appropriate to be used in different organizations (different activities and work tasks) that we included in the research. Respondents rated the degree of eligibility on a Likert scale from 1 to 5, where 1 meant "not valid" to 5, which represented that the statement was "fully valid." In total, the questionnaire covered 23 claims (one claim was reversible) and the possible number of points ranged from 23 to 115. More points mean that the employee is more successful. The minimum number of points for someone to be successful is 4 (median) or 92.

To measure *independent variables* of physical activity and performance, hydration, stress, well-being and satisfaction, we used the following questionnaires, measurements and calculations, which are presented below.

Physical activity and physical performance

Physical activity was assessed using the GPAQ questionnaire, which also includes sedentary. Physical performance was measured using a dynamometer grip capacity and a predictive estimate of maximum oxygen consumption using an appropriate formula.

The **Global Physical Activity Questionnaire**, or **GPAQ** for short (Armstrong and Bull, 2006, WHO, 2017), was used to capture physical activity data. The questionnaire is validated (Herrmann, Heumann, Ananian, & Ainsworth, 2013; Sathis and Mathews, 2023) and covers data on sedentary and physical activity:

- during work,
- in everyday transport, and
- in recreation.

Respondents enter the time (min) of different areas of their own activity. In the analysis, minutes of high-intensity physical activity are valued twice. Higher values mean more physical activity, so better results.

We measured physical activity in minutes per week, with minutes of high-intensity physical activity multiplied by a coefficient of 2 (Keating, 2018; Sathis and Mathews, 2023). In this way, we equated high-intensity activity with moderate activity (in inactivity, an individual consumes 4.184 kJ/kg/hour, in moderate-intensity physical activity 16.7 kJ/kg/hour, while in high-intensity physical activity 33.5 kJ/kg/hour) (WHO, 2023; Armstrong and Bull, 2006). For example, 3 times a week 30 minutes of high-intensity exercise and 2 times a week 60 minutes of moderate-intensity physical activity gives a total calculation of physical activity of 3 x 30 x 2 + 2 x 60 = 300 minutes. The total value in minutes in this way represents the physical activity of the moderate type.

Physical performance was measured using two health-related parameters, the **Lafayette Professional Hand Dynamometer Grip Performance Test** and the **Jackson Formula Maximal Oxygen Consumption** Assessment.

The grip performance test (dynamometry) informs us about an individual's manual grip capacity, which also correlates highly with overall strength, as it requires the mobilization of the maximum possible hand force in a short period of time and is used as part of a test battery to determine functional deficiency (Database Consortium, 1996; Oksuzyan et al., 2017; de Melo Costa et al., 2022; Soares et al., 2022). The values were written in kilograms (kg), higher values of grip capacity represent a higher grip capacity of an individual, i.e. a better result.

Procedure for measuring grip capacity

The subject sits upright, with his shoulders in a zero position. The elbow of the upper limb tested is in 90° flexion, the forearm in the zero position and the wrist in 20–30° of dorsal flexion and up to 20° of ulnar abduction. The untested upper limb is relaxed against the body during the test. The investigator stabilizes and maintains the position of the dynamometer.

The distance between the dynamometer handles must be set to the appropriate level for the maximum possible grip (second or third degree for adults). The test subjects were offered three options for repeating the first clench, without first trying. He has a few seconds (approx. 15) between attempts to relax his hand. The best result is considered. The instructions to everyone were the same: "At my signal, squeeze the handle of the device as hard as possible. Maintain the upper limb position away from the torso during the procedure and do not move the upper limb or upper body."

The investigator performs the test correctly with three repetitions with short breaks (or up to one minute if necessary), during which the arm is relaxed, extended or shaken. The grip force is read in kilograms with precision. We also stimulated the respondents to the best possible result by reading the average value of the grip capacity for their gender and their age from a table attached to the dynamometer. As a result, the best score of the three attempts is counted.

To give a rough estimate of maximal oxygen consumption, we used **Jackson's formula** (below) (Jackson et al., 1990). Higher values usually indicate better aerobic capacity of an individual, and the unit ml/kg/min is used to describe oxygen consumption in milliliters (ml) per kilogram of body weight per minute (kg/min).

$$VO_2max = 56{,}363 + 1{,}921(PAR) - 0{,}381(S) - 0{,}754(ITM) + 10{,}987(G)$$

PAR[1] – the level of physical activity
S – age in years
BMI – Body Mass Index
G – gender (0 – female, 1 – male)

[1] PAR - Physical activity rating - respondents circle the number in front of the statement that best describes their physical activities in the selected period (in our questionnaire it was the last six months).

0	I avoided walking or exercising (always use the elevator, always ride the car instead of walking)
1	I walk when I feel like it, I usually use the stairs, sometimes I also exercise so much that I get out of breath
2	10-60 minutes per week of light exercise (recreation)
3	More than an hour a week of light exercise (recreation)
4	A more intense form of exercise (up to 30 min/week)
5	A more intense form of exercise (up to 30-60 min/week)
6	A more intense form of exercise (from 1 to 3 hours/week)
7	More intense form of exercise (more than 3 hours/week)

We also covered data on some restrictions on physical activity; the symptoms of the disease, any joint and/or muscle pain, and general health problems. Those who did not have problems at the time of questionnaire completion or in the past month (we later called it PROBLEMS in the survey) marked the answer with a value of 0, and those who surrounded any of the described problems we took the value of the number of problems they stated. We rated the possibility of various problems from 0 to 12.

We did the same with symptoms (we later called it SYMPTOMS in the research), where respondents had the option to choose 0 or up to 4 symptoms. We also defined joint pain (we later name it PAIN), where respondents could indicate where they are currently or have felt pain in the past month. From 0 to 6 answers were possible for the current and just as many for the option in the last month. We took the total number of problems with the conclusions into the analysis, so that the possibility of a range of answers was from 0 to 12. For the parameters of the problem, symptoms and conclusions, the lower the value represents a better result.

Well-being

The next variable is well-being, which was captured by the **General Health Questionnaire,** or GHQ for short (Goldberg, 1972). There are several forms of that questionnaire. We used a version with 12 claims, where the individual can choose between the answers; It represents much less than usual, the same as usual, more than usual, and much more than usual, representing values from 0 to 3. Half of the questions are such that the points are escalating upwards and half downwards. Lower values represent better well-being. For each question, respondents can choose a statement that represents 0, 1, 2 or 3 points, a total of 0 to 36.

Hydration

For the hydration variable, we compiled a questionnaire that covered aspects for **the Identification of (de)hydration according to the criteria of the National Institute of Public Health** - NIJZ (2016). The questionnaire was used to check the state of concentration, attention, memory functions, the feeling of thirst (dry mouth), the frequency of headaches, the colour and smell of urine, and the frequency of muscle cramps. Individuals rated 7 statements on a five-point scale of the Likert type, where 1 means they never feel that way, and 5 means that they often feel this state. The number of points is possible from 7 to 35. A higher value indicates poorer hydration.

Stress

For stress variables, we used the psychological **Stress Diagnostics Questionnaire** (Tušak and Kovač, 2012). Of the 42 stressors listed, respondents identified those that they had been exposed to in the past 12 months and that they could say they experienced as threatening. The norms of the questionnaire represent the state of stress risk of an individual: 0-2 excellent, 2-5 very good, 6-10 good, 11-13 appropriate, and 14 or more alarming. A higher value represents a worse result or a higher risk of stress.

Satisfaction

The area of satisfaction was divided into life satisfaction and job satisfaction.

For the area *of life satisfaction*, we used the **questionnaire Satisfaction with life scale**, or SWLS for short (Diener, Emmons, Larsen, & Griffin, 1985), to check overall life satisfaction (subjective sense of well-being). The scale consists of 5 items, to which the respondent answers on a scale from 1 (not true at all) to 7 (absolutely true). The score on the scale can be characterized as an individual's global assessment of the quality of their life according to personal criteria. An individual can get from 5 to 35 points. Higher values represent a better outcome.

Job satisfaction was measured using the **Job Satisfaction Questionnaire**, or JSQ for short (Smith, 2018), which has 16 statements in which the respondent can identify themselves on a Likert type scale of 1-5, where 1 means that he disagrees with the statement and 5 that he completely agrees with the statement. The range of possible points was from 16 to 80. Higher values represent a better outcome.

The last part of the questionnaire consisted of questions about the workplace (hierarchical position in the organization, education and size of the work organization). We also checked the restrictions (the use of medication that could affect the credibility of the data covered and the specifics of the work environment).

Table 1

Arrangement of variables and how data is captured

Type of variable	Variable	Tool	Brief description of the measurement
Dependent variable	Performance in the workplace	- EPT (Employee performance template), CAI (2011)	Questionnaire - Claims (23) 1-5 Very Uncharacteristic – Very Distinctive Median (failed/successful)
Independent Variable	Well - being	- GHQ (General health questionnaire, Goldberg, 1972)	12 claims, 6 reversible 0-3 (much more than usual - much less than usual)
Independent Variable	Physical activity	- GPAQ - Global Physical Activity Questionnaire (WHO, 2017)	Time (t): (1) daily work and chores, (2) according to the means of transport, (3) recreational activities, and (4) sedentary habits.
	Physical performance	- Dynamometry (grip capacity) - VO_2max score (Jackson et al., 1990)	Seated, arm 90°, 3x - max score, Lafayette Professional Hand Dynamometer Jackson`s formula
		Physical activity restrictions	Problems, symptoms, pains.
Independent Variable	Hydration	NIJZ (2016), summarized by WHO	Questionnaire with 7 statements: 1-5 I never feel this way – I always feel this way
Independent Variable	Stress	Stress diagnostics - psychological q. (Tušak and Kovač, 2012)	Questionnaire – selection from 42 stressors **R:** Alarming - excellent
Independent Variable	Satisfaction	JSQ - Job satisfaction questionnaire (Smith, 2018)	16 Claims: 1-5 (dis)agree
		SWLS (Diener et al., 1985) – with life	5 statements, 1-7 (not true at all-absolutely true)

Note. EPT - Self-assessment questionnaire for performance at work. GHQ – General Health Questionnaire. GPAQ – Physical Activity Questionnaire. WHO – World Health Organization. NIJZ – National Institute of Public Health. JSQ – Job Satisfaction Questionnaire. SWLS – Life Satisfaction Questionnaire.

Table 1 presents all variables, measuring instruments and a brief description of them.

5.3 Statistical methods

First, we reviewed each variable and general demographic parameters separately using basic statistical methods.

Before performing correlation and regression analyses, the following assumptions were checked: distribution normalities (Shapiro-Wilk test and histogram), linear correlation (radiation plot), multicollinearity (correlation between selected independent variables, $r < 0.7$-0.8).

The correlation between the two numerical variables was performed using the Pearson correlation coefficient and the Spearman correlation rank coefficient, as asymmetric distributions were found for most of the independent variables as well as workplace performance as the dependent variable.

The strength of the correlations was interpreted as insignificant (rho <±0.2), low (±0.2<rho<±0.4), moderate (±0.4<rho<±0.7), high (±0.7<rho<±0.9) and very high (±0.9<rho<±1) (Leskošek, 2017). Before calculating the simple and multiple regression models, we tried to normalize the variables that were asymmetrically distributed (especially workplace performance as a dependent variable) by transforming the decimal logarithm, where we previously performed a reflection of performance at the workplace (log10 reflected performance at the workplace = maximum value of performance at the workplace on the sample + 1 – performance at the workplace of the individual subject) (Field, et al., 2007). Using this kind of established approach did not improve the distribution of performance in the workplace, so we maintained its absolute values in the analysis.

Before the final calculation of the regression models, we re-checked the normality of the distribution and maintained all variables in the regression models that were proportionally similarly asymmetric to the left. For all independent variables that were statistically significantly related to performance in the workplace, we also performed simple linear regression models.

All independent variables that had a statistically significant impact on performance in the workplace were included in the multiple linear regression model. All statistical calculations were evaluated as statistically significant at a risk level of 5%.

The reliability of the measurement results was measured by the Cronbach alpha coefficient, which in all cases was higher than 0.7, which can be marked (Taber, 2018) as adequate (acceptable), but most of them are also above 0.8, which is good according to the same source.

For the Workplace Performance Questionnaire (EPT), we calculated the median and divided the respondents into groups. In general, when checking the dependent (criterion) variable of performance in the workplace, individuals who are below the median were considered to be *unsuccessful* and those above the median were *considered to be successful*. We then identified differences in predictive variables with respect to more and less successful individuals in the workplace (in the dependent variable).

At the overall level of analysis, we used Pearson's correlation coefficient *r* to determine *the relationship between predictors and criterion* (Schober, Boer, & Schwarte, 2018) and Spearman's correlation rank coefficient rho, with which we satisfied the first objective (**A1**) and answered hypotheses from **H1** to **H5**.

To *create the model*, we used a simple and multiple regression analysis, with the results of which we achieved the second goal (**A2**) and obtained the answer to the last hypothesis **H6**.

5.4 Respondents

The survey involved 122 employees (65 women, 57 men), whose main characteristic is that their work is predominantly sedentary. Based on the criterion that employees sit at least 85% of their working time, we selected 81 organizations (to which we sent a questionnaire and an invitation) that we invited to participate. 22 (27%) of the invitees agreed to the survey after a more detailed explanation of the survey (in writing and by telephone) and its purpose. Even within these organizations, employees independently decided whether they wanted to join the survey or not. The proportion of employees from the organization who were included in the survey ranged from a few percent (3%) to one hundred percent. There were 122 questionnaires returned, but 2 were partially completed. For these two, we only considered the data we received from respondents.

The overall survey included all age groups of official employment up to 25 years 26%, 25 to 29 years 15.5%, 30 to 34 years 6.6%, 35 to 39 years 15%, 40 to 44 years 12%, 45 to 49 years 9%, 50 to 54 years 6.5%, 55 to 59 years 0.8% and 60 to 65 years 3.3%,) and a few others, i.e. those over 65 years of age, who accounted for 2.5%.

Table 2

Hierarchical position in the work organization

Value Label	Hierarchical level of the employee in the organization	f	f (%)
1	Operating	70	57,38
2	Head of Department	12	9,84
3	Head of Department or Branch	11	9,02
4	Director of the organization	4	3,28
5	Organization owner	4	3,28
6	One-person organization	17	13,93
	Other	4	3,28
	Together:	122	100,0

Note. f – frequency, f (%) – percentage.

Table 2 shows respondents according to the hierarchical levels they occupy as employees in the organization. Operations represent employees who do not have other colleagues under them and usually perform operational work directly with the product or customer. The head of the department represents the front-line managers who lead the operational staff. The head of a sector or branch is the head of a larger sector or branch, which can also be managed as an independent unit. The director of an organization represents someone who leads the entire organization, which has its employees on one side and owners or shareholders on the other. A sole proprietorship represents sole proprietorships without employees, private sole proprietorships, and sole proprietorships with limited or unlimited liability. Those who did not know how to fit in properly (e.g. currently unemployed or at work through the student service) chose the answer rest.

We also reached all hierarchical levels in organizations, from operational workers, who were the most numerous (57%) to directors of organizations and owners, who are 3.3% each. Single-person organizations are also worth mentioning, and 13.93% of them.

The above data is also presented in the light of the size of the organizations in which the surveyed employees work.

Table 3

Size of the work organization

Value Label	Size of the organization	f	f (%)
1	Up to 10 employees	48	39,34
2	2 from 11 to 50 employees	25	20,49
3	From 51 to 250 employees	35	28,69
4	More than 250 employees	14	11,48
	Together:	122	100,0

Note. f – frequency, f (%) – percentage. The distribution of the size of organizations is formulated according to Article 55 of the Companies Act (Official Gazette No. 55/15, 2006)

The largest proportion of employees (39.3%) are from organizations with up to 10 employees, with 48 working there, which is the largest percentage of the sample. 20.5% of respondents work in an organisation with 11 to 50 employees, and 28.7% in an organisation with 51 to 250 employees. At least 14 of them work in an organization with more than 250 employees.

We also checked the educational structure of the respondents.

Table 4

Education of respondents

Value Label	Completed training	f	f (%)
1	Primary school or less	3	2,46
2	Secondary education	47	38,52
3	College or college	50	40,98
4	Master's degree or specialization	20	16,39
5	PhD	2	1,64
	Together:	122	100,0

Note. f – frequency, f (%) – percentage. Frequencies and percentages according to respondents' educational attainment

According to the educational structure, the sample includes a maximum of 41% of individuals with a tertiary education, including participants in pre-Bologna university education. The second group in terms of volume are individuals with secondary education, who accounted for 38.5% of respondents, and the group with completed master's or specialization education (16.4% of respondents). All other values (basic school or less and doctoral education) were lower, up to 2.5%.

For the sample, we also calculated BMI (body mass index)[2] using a formula where we divided body weight in kilograms by the square of height in meters. The table presents the distribution of frequencies according to the group to which respondents belong according to their body mass index (BMI).

Table 5

Respondents' body mass index according to World Health Organization criteria

Value Label	Value	f	f (%)
Malnourished	1,00	2	1,64
Ideal body weight	2,00	72	59,02
Increased body weight	3,00	36	29,51
Easier obesity	4,00	8	6,56
Severe obesity	5,00	2	1,64
Unknown		2	1,64
	Together:	122	100,0

Note. f – frequency, f (%) – percentage. Respondents' body mass index according to World Health Organization criteria from malnourished to severe obesity. Two of the respondents did not want to write down their body weight, so BMI calculation was not possible for them.

In the sample, we had the largest share of individuals with an ideal body weight of 59%, followed by the group with overweight 29.5% and then the group with mild obesity 6.5%, the rest of the values are below 2% (malnutrition and obesity).

We can find that the sample is appropriately distributed across genders, across all age groups, all hierarchical levels in the organization, and that respondents also work in work environments of different sizes.

To perform a dynamometer grip performance measurement, we also captured data on the dominant arm. Three of them did not define themselves in terms of the dominant hand

[2] BMI classes according to WHO (2008) represent malnutrition below 18.5, ideal body weight from 18.6 to 24.9, increased body weight from 25 to 29.9, mild obesity from 30 to 34.9, severe obesity from 35 onwards.

(they perform activities to the same extent with both hands, or some only with the left and some with the right, e.g. "I eat with the left; I write with the right").

We also checked the strength of the sample, i.e. whether the dependent (performance in the workplace) and the range of independent variables (physical activity and performance, stress, well-being, satisfaction and hydration) corresponded to the sample of 122 respondents and marked it as adequate, but certainly a larger sample would be better. The ratio of explained to unexplained variance for test strength of 0.80 was 0.173, which means that 17.3% of the variability of the dependent variable can be explained by independent variables.

6. Results

Respondents who decided they wanted to join the survey were diverse. In Table 6, we present a sample of respondents, mean values and standard deviation of descriptive parameters (age and body mass index) and dependent and independent variables for all respondents, as well as separately for women and separately for men.

Table 6

Presentation of the sample of participants in the study according to the main variables

Respondents (N = 122)	**N (%) or Average (SD)**	**Man N (%) or Average (SD)**	**Women N (%) or Average (SD)**
Age (years)	35,10 (12,9)	37,40 (11,51)	33,26 (13,37)
Body mass index	24,40 (3,90)	26,24 (3,37)	22,87 (3,74)
Work Performance (1-5)	4,31 (0,30)	4,29 (0,40)	4,34 (0,39)
Well-being (0-3)	1,38 (0,40)	1,39 (0,38)	1,37 (0,44)
Job satisfaction (1-5)	3,83 (0,60)	3,81 (0,69)	3,86 (0,66)
Life satisfaction (1-7)	4,80 (1,10)	4,48 (1,17)	5,01 (1,15)
Physical activity - (sum of days: work, recreation and transport; min per week) *	459 (372)	483 (370)	438 (375)
Physical inactivity - Sedentary (hours per day)	7,42 (3,27)	7,89 (3,44)	6,91 (3,31)
VO_2max (ml/kg/min)	35,97 (8,98)	40,86 (7,86)	31,68 (7,63)
Dynamometry (kg)	45,42 (13,95)	57,05 (11,28)	35,22 (5,49)
Stress risk (1 - 5)	2,34 (0,88)	2,32 (0,91)	2,36 (0,86)
Hydration (1 - 5)	3,62 (0,89)	3,38 (0,72)	3,47 (0,99)

Legend: N – number of respondents, SD – standard deviation, VO_2max – maximum oxygen consumption, ml/kg/min – millilitre per kilogram per minute. * Minutes of moderate physical activity per week

6.2 Dependent variable –Work Performance

The Employee Performance Template or EPT (CAI, 2011) gave us a self-assessment of employee performance. Employees gave a self-assessment of the following parameters: working to their full potential, quality of work, consistency of work, communication, independent work, taking initiative, teamwork, productivity, creativity, sincerity, integrity, relationships with colleagues, customer relations, technical skills, reliability, punctuality and presence.

The average self-assessment of performance at work is 4.31 with a statistical error of 0.04, which, given that the scale covers an interval from 1 to 5, is a high score. The differences between respondents are correspondingly small, as the standard deviation is 0.39. So we notice that the data was grouped very high on the scale.

The lowest score is 3.88 (except for the reversible claim of 2.38), and about 80% of the data is greater than 4. This represents a major limitation of the research, as it is our dependent variable.

Table 7

Average and standard deviation of the EPT statements

Claim	Average (SD)
I am used to maintaining high standards of work throughout the work process.	4,39 (0,7)
I'm able to perform my duties without much supervision.	4,43 (0,7)
I'm passionate about my work.	3,92 (0,94)
I know that I can also multitask, in order to achieve the goal of the organization.	4,13 (0,91)
I usually finish my work by the agreed deadline.	4,51 (0,7)
My colleagues see me as a success in our organization.	3,93 (0,76)
I am able to use all my knowledge for successful teamwork.	4,53 (0,63)
I am able to accept changes in my workplace whenever the situation requires me to do so.	4,39 (0,67)
I am able to guide my colleagues through the phases of change.	4,05 (0,83)
I believe that a common understanding of the situation offers opportunities for good results.	4,62 (0,66)
Sometimes I lost my temper when my colleagues criticized me. (R)	2,38 (1,11)
I'm very flexible in the workplace.	4,37 (0,65)
I usually do well when we have some changes in the organization.	4,29 (0,77)
I help my co-workers if they ask me if they need it.	4,80 (0,48)
I'm happy if I get the extra responsibility.	3,97 (1,03)
I am compassionate and understanding to colleagues who need help.	4,59 (0,61)
I am active when we discuss work challenges in the group.	4,29 (0,79)
I appreciate my co-workers for their good work.	4,70 (0,53)
It is a pleasure for me to help others in the organization.	4,60 (0,62)
I have a habit of sharing my knowledge and ideas among my colleagues.	4,48 (0,7)
I try to coordinate my co-workers and work.	4,34 (0,75)
Sometimes I invite colleagues to see the content from a different angle.	3,88 (0,81)
I'm always talking to my colleagues when I'm looking for solutions and making decisions.	4,19 (0,81)
Together:	**4,31 (0,39)**

Note. SD – Standard deviation.

When reviewing the entire questionnaire, we found that they scored the highest in the statement that they help their co-workers if they ask or ask. The lowest average score is expected in the reversible claim that sometimes they lose their temper if they are criticized by colleagues. The second lowest is when they claim that they sometimes invite co-workers to see the content in a different way.

Given that this is our main predictive variable, we would once again point out a really high average on all claims. For further data processing, we divided these indicators into two groups with the help of the median, which represent less successful and more successful. The median is exactly 4, and the most represented score (mode) is as much as 5.

Table 8

Frequency of performance in the workplace and the distribution of respondents according to the median into more or less successful

	Frequency	Percentage	Valid share	Cumulative share
69	1	0,8	0,8	0,8
77	2	1,7	1,7	2,5
78	2	1,7	1,7	4,1
80	1	0,8	0,8	5,0
82	2	1,7	1,7	6,6
83	3	2,5	2,5	9,1
84	2	1,7	1,7	10,7
85	2	1,7	1,7	12,4
87	1	0,8	0,8	13,2
88	4	3,3	3,3	16,5
89	5	4,1	4,1	20,7
91	1	0,8	0,8	21,5
92	1	0,8	0,8	22,3
93	8	6,6	6,6	28,9
94	5	4,1	4,1	33,1
95	3	2,5	2,5	35,5
96	4	3,3	3,3	38,8
97	6	5,0	5,0	43,8
98	4	3,3	3,3	47,1
99	3	2,5	2,5	49,6
100	5	4,1	4,1	53,7
101	7	5,8	5,8	59,5
102	5	4,1	4,1	63,6
103	9	7,4	7,4	71,1
104	10	8,3	8,3	79,3
105	4	3,3	3,3	82,6
107	7	5,8	5,8	88,4
108	4	3,3	3,3	91,7
109	3	2,5	2,5	94,2
110	2	1,7	1,7	95,9
111	5	4,1	4,1	100,0
Together	121	100,0	100,0	

Legend. The table shows the frequencies, percentages, applicable proportions, and cumulative proportions for each of the Workplace Performance Self-Assessment values.

In Table 8, we see the frequencies, percentages, valid percentages, and cumulative proportions for each of the workplace self-assessment values, and we can see that there is a higher proportion of frequencies at higher ratings. How the frequencies are distributed is presented in the following table.

Table 9

Shifting the shares of more and less successful employees

	Frequency	Percentage	Valid share	Cumulative share
Abortive	26	21,5	21,5	21,5
Successful	95	78,5	78,5	100,0
Together	121	100,0	100,0	

Legend. The table shows the frequencies, percentages, valid percentages, and cumulative percentages in the successful and unsuccessful group according to self-assessment of performance in the workplace.

In Table 9, we can see that only 21.5% of respondents were below the median, while the remaining 78.5 rated themselves very well in their self-assessment of performance in the workplace, so they are in the group of performers.

6.3 Independent (predictive) variables

6.3.1 Stress

Of the 42 stressors listed, respondents identified those they had been exposed to in the past 12 months and that they could say they experienced as threatening. In the stress load, the respondents performed very well in the cumulative value of the results excellently, and almost 82% of the sample was covered well and well, so we can conclude that the respondents are not excessively subject to stress.

Table 10

Results of respondents' stress load

Value Label	Value	Frequency	Percentage	Cumulative share
Excellent	1,00	25	20,49	20,49
Very good	2,00	42	34,43	54,92
All right	3,00	33	27,05	81,97
Appropriate	4,00	11	9,02	90,98
Alarm	5,00	11	9,02	100,00
	Together:	**122**	**100,0**	

Note. The table shows the proportions in each stress load segment.

6.3.2. Physical activity and performance

The results of physical activity are shown in the first part of this chapter under the heading (1) and further below the heading (2) the results of physical performance.

In the case of data on minutes of physical activity, in order to equalize high and moderate physical activity, they were calculated by multiplying moderate-intensity physical activity by 2 to equate it with high (in inactivity, an individual consumes 4.184 kJ/kg/hour, in moderate-intensity physical activity 16.7 kJ/kg/hour, while in high-intensity physical activity 33.5 kJ/kg/hour) (WHO, 2023; Armstrong and Bull, 2006; Keating, 2018).

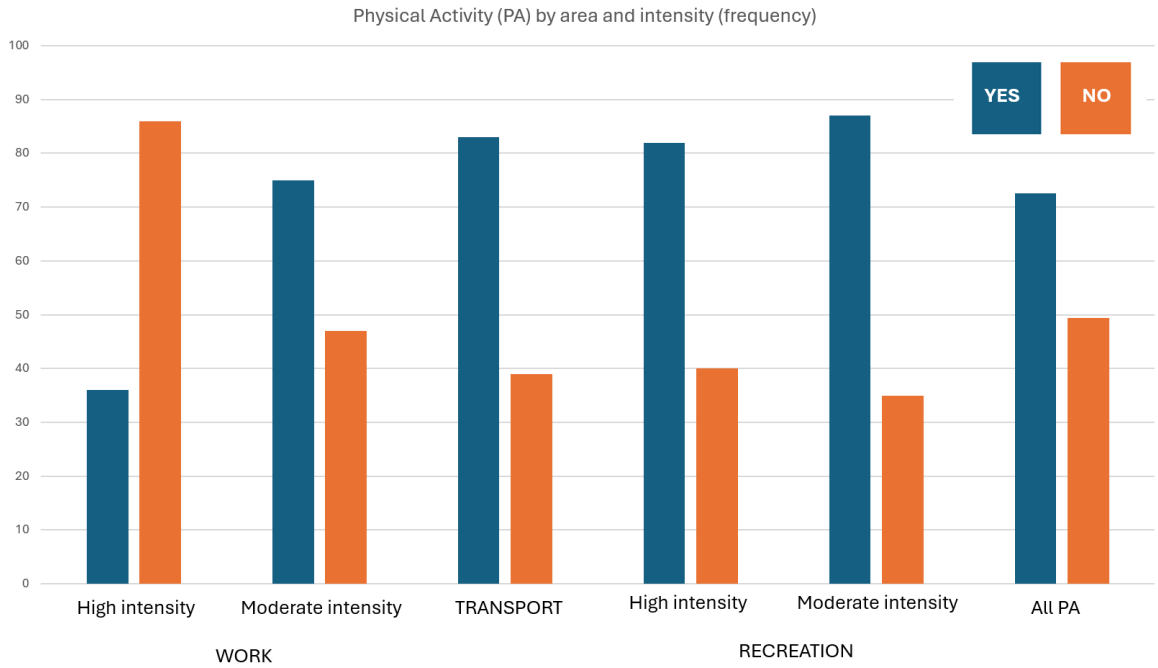
(1) For each of the areas of physical activity (work, transportation, recreation), the Physical Activity Questionnaire (GPAQ) asks whether respondents are (moderately or highly) physically active, then if they are, for how long in a typical week, and in what form. When respondents answered no, they skipped the following questions. Physical activity was measured in minutes per week, with minutes of high-intensity physical activity multiplied by a coefficient of 2. For example, 3 times a week 30 minutes of high-intensity exercise and 2

times a week 60 minutes of moderate-intensity physical activity gives a total calculation of physical activity of 3 x 30 x 2 + 2 x 60 = 300 minutes. Thus, we adapted the data of high-intensity physical activity to the data of moderate physical activity, which we present below, which represent moderate physical activity.

The data was then cleaned. We deleted three results from the original dataset that reported abnormally high levels of physical inactivity that are not logical and possible (e.g., more than 8 hours of sitting at work per day). On the basis of such a corrected sample, we then did not detect obvious errors (higher values than possible) or missing values. The values are within a reasonable range for physical activity. The data are consistent and are consistent with logical expectations (they are values within the expected limits according to the type of activity).

Figure 2

Physical activity by area and intensity



Note. N=122; PA – physical activity.

For each area, respondents first answered whether they were physically active in that area. In the case of work and leisure, data were also separately covered for high and moderate-intensity physical activity.

Thus, physical activity at work (for Slovenian conditions we assumed that the employee works 40 hours a week) and of which GPAQ_D 264.76 minutes per week (SE = 43.54) at work is physically active at moderate intensity (moderately intense physical activity + high-intensity physical activity x 2). This represents 4.41 hours, which is only 11% of working time (our assumption for inclusion in the survey was that employees sit at least 85% of the time). The estimates are distributed asymmetrically. As is customary in such distributions, the

differences between respondents are extremely large: SD = 443.54, which is 7.39 hours, the lowest score is 0, and the highest is 1800 minutes per week. In line with the decision to include mainly people who have sedentary work in the sample, we see that a good third (36%) of respondents do not exercise during work.

Furthermore, in the context of the Global Physical Activity Questionnaire, we specifically analysed the assessment of physical activity in everyday transport.

The average estimate of physical activity in daily transport GPAQ_TR is 165.48 minutes per week (SE = 28.38), which represents 2.76 hours. These estimates are also distributed asymmetrically. The differences between respondents are always large: SD = 283.77 minutes per week, which is a little more than four and a half hours. The lowest score is 0 and the highest is 630 minutes per week. Here, too, a good third (36%) said they never walk or cycle to work or run errands.

In the Global Physical Activity Questionnaire, we also included data on the assessment of physical activity in recreation (GPAQ_R). The average physical activity score for recreation GPAQ_R is 393.28 minutes per week (SE = 35.47) of moderate physical activity (moderate-intensity physical activity + high-intensity physical activity x 2). The estimates are distributed very asymmetrically. As is customary in such distributions, the differences between respondents are extremely large: SD = 354.72, i.e. almost six hours. The lowest score is 0 and the highest is 1260 minutes per week.

Using data from GPAQ, we calculated an estimate of total physical activity per day in GPAQ_FULL hours. The average total physical activity score is 823.58 minutes per week (SE = 70.57) of physical activity (moderate-intensity physical activity + high-intensity physical activity x 2). As is customary in such distributions, the differences between respondents are relatively large: SD = 705.70 minutes per week, the lowest score is 0, and the highest is 3630.

The physical activities cited by the respondents were: walking, brisk walking, fitness, stretching, running, cycling, yoga, guided exercises, hill walking, basketball, Nordic walking, volleyball, mountaineering, swimming, dancing, hiking, band exercises and training of the selected sport.

The Global Physical Activity Questionnaire also covers the number of hours you sit. Given that we've been tweaking sedentary jobs, it's logical to expect higher figures. Especially since they were low in transport, we can conclude that respondents drive to and from work, which is also represented by sitting. The average score of sitting daily in hours (SEDI) is 7.42 (SE = 0.56). Again, the differences between respondents are relatively large: SD = 3.27, the lowest score is 0, and the highest is 32.57.

We observed interesting data in terms of grouping variables, as most of the data is grouped

around 8 and 10 hours of sitting, so we broke down the variables further into those who sit for 8 hours or more, 46 (37.7%) and less than 10 hours, which are 76 or 62.3%. However, when we set the dividing line at 8 o'clock, we find that 49 or 40.2% are below this limit and 73 or 59.2% above. The data captured are meaningfully linked to data on job selection—sedentary and commuting—where no high association with cycling or walking was detected. So translated into practice, it's an 8-hour workday and a one-hour commute to and from work.

Table 11

Comparison of physical activities

	Minutes of physical (in)activity per week [hours]	Standard deviation
GPAQ_D	264,76 [4,41]	443,54 [7,39]
GPAQ_TR	165,48 [2,76]	283,7 [4,73]
GPAQ_R	393,28 [6,55]	354,72 [5,91]
GPAQ_FULL	823,58 [13,73]	705,70 [11,76]
SITT (hours/day)	7,42	3,27

Note. Physical activity in minutes per week (*high intensity multiplied by 2) and standard deviation. Sitting time is given in hours per day. GPAQ_D – physical activity at work, GPAQ_TR – physical activity in transport, GPAQ_R – physical activity for recreation, GPAQ_FULL – joint physical activity, SITT – sitting time.

(2) For the predicted body performance variable, a dynamometer (DINMAX) grip capacity measurement and an estimate of VO_2max maximum oxygen consumption were performed.

To measure the grip performance, we used the Lafayette Institute (USA) model 5030L1 Lafayette Professional Hand Dynamometer (PHD).

The mean value of dynamometry – grip capacity (DINMAX) is 57.05 kg (SD = 11.28) in males and 35.22 kg (SD = 5.49) in females. The lowest measured power in women is 22.00 kg, the highest is 48 kg, and in men the lowest is 28 kg and the highest is 78.00 kg. The values are distributed bimodally, which is mainly due to anatomical differences related to gender.

Using the Jackson formula, we calculated an estimate of the maximum oxygen consumption of VO2max from the age, gender and STD (self-assessment of physical activity) data. STD score from 0 – 7 (0 I avoided walking or exercising, always use the elevator, always drive a car instead of walking, 1 walk when I feel like it, usually use the stairs, sometimes exercise enough to breathe, 2 10 – 60 minutes a week of light exercise (recreation), 3 more than an hour a week of light exercise (recreation), 4 more intense forms of exercise (up to 30

min/week), 5 more intense forms of exercise (up to 30 – 60 min/week), 6 more intense forms of exercise (from 1 to 3 hours/week) and 7 more intense forms of exercise (more than 3 hours/week) were given as self-assessments. The average STD score of all respondents was 4.29 (SD=2.25), while it was 4.93 (SD=2.32) for men than 3.72 for women (SD=2.05). So, men would be placed around point 5, which says that they engage in a more intense form of exercise from 30 to 60 minutes / week, and women between 3 and 4, i.e. between more than one hour of light exercise and 30 minutes of intense exercise per week.

The average estimate of oxygen consumption, calculated using the Jackson formula, is 35.97 ml/kg/min (SD = 8.98. Men have a maximum oxygen consumption estimate of 40.86 ml/kg/min (SD=7.86), while women have an estimate of 31.68 ml/kg/min (SD=7.63).

The estimates are distributed relatively symmetrically. The lowest score is 12.28 and the highest is 56.40. Here, too, the results suggest two peaks according to gender, with female data grouped around the first and male data around the second, very similar to previous data representing grip capacity.

We took a closer look at the difference between the more and less successful and their physical abilities (dynamometry and maximal oxygen consumption). However, in the basic analysis, we did not encounter statistically significant values.

We've also looked at physical activity and performance data by gender and present them in the table on the next page.

Table 12

Physical activity in a typical week in minutes and performance of respondents (grip capacity and estimate of maximum oxygen consumption) and STD - self-assessment of physical activity used in Jackson formula according to gender in the interval with 95% confidence.

						95% Confidence interval			
	Spol	**N**	**Average**	**St. dev.**	**Std. er.**	**Low**	**Top**	**Minimum**	**Maximum**
GPAQ_D	**M**	57	234,39	451,11	59,79	115,26	353,51	0,00	1800,00
	F	65	291,40	438,55	54,41	183,45	399,35	0,00	1155,00
	Together	122	264,76	443,54	57,18	151,97	377,55	0,00	1800,00
GPAQ_TR	**M**	57	157,79	330,00	43,66	71,16	244,42	0,00	630,00
	F	65	172,23	238,44	29,60	113,11	231,36	0,00	480,00
	Together	122	165,48	283,77	36,42	93,54	237,42	0,00	630,00
GPAQ_R	**M**	57	488,16	384,13	50,89	386,19	590,13	0,00	1260,00
	F	65	310,08	306,16	37,95	234,18	385,98	0,00	900,00
	Together	122	393,28	354,72	45,56	303,18	483,38	0,00	1260,00
GPAQ_FULL	**M**	57	880,46	753,92	99,91	680,33	1080,59	0,00	3630,00
	F	65	773,71	662,41	82,13	609,36	938,06	25,80	2700,00
	Together	122	823,58	705,70	94,37	637,96	1009,20	0,00	3630,00
VO_2max	**M**	57	40,86	7,86	1,04	38,78	42,95	17,72	56,40
	F	65	31,68	7,63	0,95	29,79	33,57	12,28	44,93
	Together	122	35,97	8,98	0,81	34,36	37,58	12,28	56,40
DINMAX	**M**	57	57,05	11,28	1,49	54,06	60,04	30	78
	F	65	35,22	5,49	0,68	33,86	36,58	22	47
	Together	122	45,42	13,95	1,26	42,92	47,92	22	78
PAR	**M**	57	4,93	2,32	0,31	4,31	5,55	0	8
	F	65	3,72	2,05	0,25	3,22	4,23	1	7
	Together	122	4,29	2,25	0,20	3,88	4,69	0	8

Legend. GPAQ data expressed in minutes per week. N – number of respondents, M – men, F – women, GPAQ_D – physical activity at work, GPAQ_TR – physical activity in transport, GPAQ_R – physical activity for recreation, GPAQ_FULL – total physical activity, VO_2max – estimate of maximum oxygen consumption, DINMAX – grip capacity (dynamometry), PAR – self-assessment of physical activity to calculate maximum oxygen consumption according to the Jackson formula.

Physical activity restrictions

For a better interpretation, we added some general questions to the survey about the perceived problems in the last month and what symptoms or pain the respondents perceived in themselves. Additional variables are not directly related to the variables in hypotheses, but they help us to make predictions and interpretations of it.

Thus, we captured the number of health symptoms observed in the last month (SYMPTOMS). The mean estimate of the number of common symptoms[3] is 0.61 (SE = 0.07). The values are normally distributed by SD = 0.80 (the variation quotient is 1.31), the lowest score is 0, and the highest is 3 out of four possible.

The average score for the number of health problems[4] (PROBLEMS) is 0.98 (SE = 0.10). Here, too, the scores are distributed symmetrically. SD = 1.13 (variation quotient is 1.15), the lowest score is 0, and the highest is 3 out of four possible.

The average number of joint pains (JOINTS) reported by respondents that they feel at the moment or have felt in the last month is 2.14 (SE=0.12), with SD = 1.33. The lowest score was 0 and the highest was 6th, and the median was 2.

6.3.3 Hydration

The next predictive variable is hydration. The scale of good hydration is presented in the figure on the next page, because a higher self-score shows fewer problems perceived by respondents in relation to hydration.

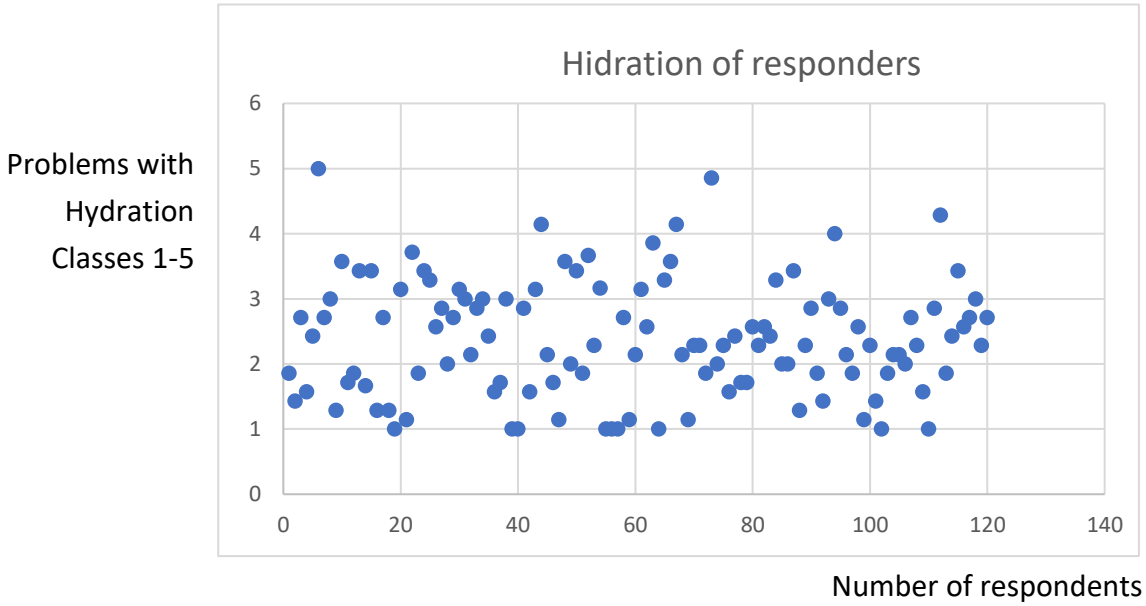
The average score on the Good Hydration Scale is 3.62 (SD = 0.98) on a scale of 1 to 5. The estimates are distributed relatively symmetrically. The values are distributed more or less normally. According to the data obtained, two fifths (39%) of respondents do not have hydration problems (4 points or more), the same proportion (39%) of respondents notice occasional hydration problems (from 3 points to below 4 points), furthermore, less than a sixth (16%) of respondents notice frequent hydration problems (below 3 points, but above 2 points), and about twenty (5%) respondents have more or less constant hydration problems (2 points or less).

[3] Respondents were given a list of four types of symptoms, and they had the opportunity to add another type, which no one used. The logarithmic transformation did not improve the predictive power of this variable, so we do not show the transformed results.

[4] Respondents were provided with a list of health problems with twelve organic sets, and they were given the option of adding some other type that, as with symptoms, was not used by anyone. Here, too, the logarithmic transformation did not improve the predictive power of this variable, so we do not show the transformed results.

Figure 3

Values of Hydration problem



As a limitation, we mention that the respondent mentioned in one case a higher workplace temperature, which was singled out for hydration analysis.

6.3.4 Well-being

For the predictive variable of well-being, we used the General Health Questionnaire (GHQ).

The average general health score is 1.38 (SD = 0.41) on a scale of 0 to 3. The estimates are distributed fairly symmetrically (Gaussian) distributed. A lower value represents a better result. The lowest score is 0.17 and the highest is 2.75. The statement that had the highest average, 1.93 (SD 0.85), confirmed that the individual enjoys daily activities, which is extremely important for the workplace.

The reversible statements, however, received the lowest value (0.73) points. Assertions are about losing confidence in oneself and one's abilities and thinking of oneself as a useless/redundant person.

6.3.5 Satisfaction

In the predictive satisfaction variable, we covered this from two domains and with two questionnaires.

The first was the SWLS questionnaire, which covered life satisfaction. The average score of overall life satisfaction according to the SWLS questionnaire is 4.86 (SE = 0.11) on a scale of 1 to 7. The differences between the respondents are appropriate: SD = 1.17 (the variation quotient is 0.24), the lowest score is 1.67, and the highest is 7. In the distribution, we find a special group, almost ten percent (9.8%) of respondents, who are quite dissatisfied with their lives (score 3 or less). The rest of the respondents are fairly satisfied with life. More than four-fifths rated their satisfaction at four or more. The highest score of 5.18 (SD 1.34) was the statement that the individual is satisfied with his or her life. The lowest 4.39 (SD = 1.19), however, is the claim that in most respects their lives are close to ideal.

The other was JSQ, which captures job satisfaction. The average job satisfaction score according to the JSQ questionnaire is 3.84 (SD = 0.67). Similar to self-assessment of performance at work, there is a shift in grades in a positive direction, but it is not as pronounced. As with self-assessment of performance, the differences between respondents are small (the variation quotient is low, 0.02), the lowest score is 1.67, and the highest score is 5. It's likely that there's a similar mechanism at work here as with self-assessment of performance. When reviewing the results, two statements stand out in a positive direction: the first, which says that when a customer is dissatisfied, the respondent usually corrects what is necessary and I do my best to make them satisfied 4.42. A slightly higher average value of 4.48, however, has the claim that they understand why it is necessary to have different people in the company. 3.46 is the lowest value that describes respondents' satisfaction with the information they receive from management.

6.4 Relationships between variables

Table 13 on the next two pages lists the Pearson correlation coefficients by standards (Benesty, Chen, Huang, and Cohen, 2009) between different variables. We have included in the interpretation the essential and most strongly related for our research.

Table 13

Pearson's correlation coefficients of corelation between the variables covered in the survey

		EPT	SWLS	JSQ	GHQ	HYDR	GPAQ_D	GPAQ_TR	GPAQ_R	STRESS	PROBLEM	SYPTHOM	PAIN	SITT
EPT	r	1	**0,29****	**0,38****	-0,1	0,08	0,06	0,16	0,1	0,17	0,02	0,02	0,06	-0,17
	Mr	0	**0,00**	**0,00**	0,26	0,41	0,51	0,08	0,28	0,07	0,79	0,82	0,53	0,06
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
SWLS	r	0,29	1	**0,31****	**-0,30****	0	0,05	**0,26***	0,07	-0,08	**-0,29****	**-0,21***	-0,16	-0,13
	Mr	0,00	0	**0,00**	**0,00**	0,97	0,58	**0,01**	0,46	0,39	**0,00**	**0,02**	0,07	0,16
	N	119	119	119	119	119	119	119	119	119	119	119	119	118
JSQ	r	0,38	0,31	1	**-0,29****	-0,14	-0,01	0,05	0,03	0,11	-0,05	0	0,09	0,02
	Mr	0	0,00	0	**0,00**	0,11	0,88	0,61	0,73	0,24	0,61	0,99	0,35	0,87
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
GHQ	r	-0,1	-0,3	-0,29	1	**0,18***	-0,15	-0,05	-0,04	-0,02	**0,19***	0,15	0,11	0,11
	Mr	0,26	0,00	0,00	0	**0,04**	0,09	0,62	0,7	0,80	**0,04**	0,09	0,21	0,22
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
HYDR	r	0,08	0	-0,14	0,18	1	-0,04	-0,02	-0,06	**0,19***	**0,26****	0	0,11	-0,14
	Mr	0,41	0,97	0,11	0,04	0	0,67	0,79	0,53	**0,04**	**0,00**	0,98	0,22	0,14
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
GPAQ_D	r	0,06	0,05	-0,01	-0,15	-0,04	1	**0,20***	**0,23****	0,01	**0,19***	0,1	-0,07	**-0,21***
	Mr	0,51	0,58	0,88	0,09	0,67	0	**0,03**	**0,01**	0,88	**0,03**	0,26	0,46	**0,02**
	N	120	119	120	120	120	120	120	120	120	120	120	120	**118**
GPAQ_TR	r	0,16	0,26	0,05	-0,05	-0,02	0,2	1	**0,28****	-0,08	-0,14	-0,11	-0,17	-0,15
	Mr	0,08	0,00	0,61	0,62	0,79	0,03	0	**0,00**	0,40	0,13	0,24	0,07	0,11
	N	120	119	120	120	120	120	120	120	120	120	120	120	118

GPAQ_R	r	0,1	0,07	0,03	-0,04	-0,06	0,23	0,28	1	0,02	-0,01	-0,06	-0,07	-0,15
	Mr	0,28	0,46	0,73	0,70	0,53	0,01	0,00	0	0,83	0,88	0,52	0,44	0,10
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
STRESS	r	0,17	-0,08	0,11	-0,02	0,19	0,01	-0,08	0,02	1	**0,19***	0,03	**0,15 t**	0,03
	Mr	0,072	0,388	0,24	0,80	0,04	0,90	0,40	0,83	0	**0,04**	0,72	**0,09**	0,76
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
PROBLEMS	r	0,02	-0,29	-0,05	0,19	0,26	0,19	-0,14	-0,01	0,19	1	**0,44****	**0,40****	-0,1
	Mr	0,79	0,00	0,60	0,04	0,00	0,03	0,13	0,88	0,04	0	**0**	**0**	0,283
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
SYMPTOM	r	0,02	-0,21	0	0,15	0	0,1	-0,11	-0,06	0,03	0,44	1	0,15	0,05
	Mr	0,82	0,02	0,99	0,09	0,98	0,26	0,24	0,52	0,72	0	0	0,11	0,57
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
PAIN	r	0,06	-0,16	0,09	0,11	0,11	-0,07	-0,17	-0,07	0,15	0,4	0,15	1	0
	Mr	0,53	0,07	0,35	0,21	0,22	0,46	0,07	0,44	0,09	0	0,11	0	0,99
	N	120	119	120	120	120	120	120	120	120	120	120	120	118
SITT	r	-0,17	-0,13	0,02	0,11	-0,14	-0,21	-0,15	-0,15	0,03	-0,1	0,05	0	1
	Mr	0,06	0,16	0,87	0,22	0,14	0,02	0,11	0,10	0,76	0,28	0,57	0,99	0
	N	118	118	118	118	118	118	118	118	118	118	118	118	118

Note. In the table, we denoted the statistically significant at the level of 1% with ** and 5% with *. r – Pearson's correlation coefficient. sig – statistical significance of the two-way test. N – Number of respondents considered. EPT – Workplace Performance Self-Assessment. SWLS – Life satisfaction. JSQ – job satisfaction. GHQ – well-being. HYDRR – Hydration. GPAQ_ D – physical activity at work. GPAQ_TR – physical activity in transport. GPAQ_R – physical activity – recreation. STRESS – stress load. PROBLEM – the occurrence of problems in the last three months. SYMPTOM – the appearance of symptoms in the last month. PAIN – joint pain. SITT – hours of sitting.

Due to the bimodal distribution of values in the measurement of dynamometry and the estimation of maximal oxygen consumption with peaks by each gender, correlations were calculated for the above variables also separately for the female and separately for the male.

Table 14

Pearson correlation coefficients of correlation (bidirectional test) for the bimodal variables of dynamometry (Dinmix) and the estimation of maximal oxygen consumption (VO_2max) by gender

		MALE		FEMALE	
		DINMAX	VO_2max	DINMAX	VO_2max
EPT	**r**	-0,11	-0,05	-0,15	0,05
	Mr.	0,44	0,71	0,24	0,68
	N	57	57	65	65
SWLS	**r**	0,10	-0,12	-0,06	0,10
	Mr.	0,45	0,38	0,66	0,40
	N	57	57	65	65
GHQ	**r**	-0,04	-0,24	0,03	-0,13
	Mr.	0,76	0,07	0,79	0,31
	N	57	57	65	65
JSQ	**r**	0,18	-0,08	-0,16	0,00
	Mr.	0,17	0,58	0,19	0,97
	N	57	57	65	65
GPAQ_D	**r**	**0,275 ***	-0,02	0,00	0,21
	Mr.	**0,038**	0,83	0,99	0,10
	N	**57**	57	65	65
GPAQ_TR	**r**	-0,02	0,01	-0,17	0,13
	Mr.	0,87	0,95	0,18	0,30
	N	57	57	65	65
GPAQ_R	**r**	**0,34****	**0,45****	-0,18	**0,43****
	Mr.	**0,01**	**0,00**	0,16	**,00**
	N	57	57	65	65
SITT	**r**	0,03	-0,08	**0,33****	**-0,28***
	Mr.	0,82	0,56	**0,007**	**0,02**
	N	57	57	65	65
HYDR	**r**	0,17	0,10	0,04	0,01
	Mr.	0,20	0,47	0,78	0,93
	N	57	57	65	65
STRESS	**r**	-0,04	0,05	0,10	-0,03
	Mr.	0,75	0,73	0,41	0,84
	N	57	57	65	65
SYMPTOMI	**r**	-0,07	0,16	0,10	0,02
	Mr.	0,60	0,25	0,41	0,89
	N	57	57	65	65
PROBLEM	**r**	**-0,27***	-0,05	0,05	0,20
	Mr.	**0,04**	0,70	0,69	0,09
	N	57	57	65	65
PAIN	**r**	-0,11	-0,01	0,16	0,07
	Mr.	0,24	0,23	0,33	0,18
	N	57	57	65	65

Note. In the table, we denoted the statistically significant at the level of 1% with ** and 5%

with *. r – Pearson correlation. Sig. – statistical significance of the two-way test. EPT – Workplace Performance Self-Assessment. SWLS – Life satisfaction. JSQ – job satisfaction. GHQ – well-being. HYDRR – Hydration. GPAQ_ D – physical activity at work. GPAQ_TR – physical activity in transport. GPAQ_R – physical activity – recreation. STRESS – stress load. VO_2max – maximum oxygen consumption. PROBLEM – the occurrence of problems in the last three months. SYMPTOM – the appearance of symptoms in the last month. PAIN – joint pain. DINMAX – grip capacity - dynamometry. SITT – hours of sitting. N – the number of respondents in each sample.

Respondents were divided below and above the median into higher and less successful and then compared them with each other according to gender. We looked for differences between groups of more and less successful men and women. We will also check the variance with the interaction, as we are interested in how the effects of one variable change with the level of another.

However, since the relationship between some variables is not linear and the examination of the graphs does not show the normality of the distribution, as we found with the Shapiro-Wilk test shown in Table 15 (e.g., asymmetry to the left in workplace performance), we will further elaborate on the calculation of Spearman's correlation coefficients. In the case of discrepancies in the statistical significance of both coefficients, more weight will be given to the rho coefficient, which is also more suitable for the interpretation of the curve correlation.

Table 15

Results of the Shapiro-Wilk normality test for different variables

	Shapiro-Wilk			
		N	**p-value**	**histogram**
Grip Capacity	0,930	121	0,000	It's about normal
Work Performance	0,950	121	0,000	asymmetry to the left
Well-being	0,979	121	0,055	It's about normal
Life Satisfaction	0,949	121	0,000	asymmetry to the left
Physical Activity	0,863	121	0,000	asymmetry to the right
Estimation of maximum Oxygen Consumption	0,989	121	0,474	It's about normal
Hydration	0,971	121	0,009	asymmetry to the right
Job Satisfaction	0,952	121	0,000	asymmetry to the left
Stress	0,774	121	0,000	asymmetry to the right

Note. The table shows the deviations from the normal distribution for individual variables. P-values of less than 0.05 are considered statistically significant. In the histogram column, we described the perceived distribution.

In calculating Spearman's correlation coefficients, we focused only on the principal dependent and independent variables. First, we will show the results of the Sperman correlation coefficients of all independent variables on the dependent, and then the independent variable of grip capacity is shown separately for men and women.

Table 16

Spearman's correlation coefficients of association between Work Performance and well-being, hydration, physical activity, physical performance, and assessment of life and job satisfaction

		Grip	WB	Sat. with life.	P A (full)	Max. O_2 con.	Hid.	Sat. at work
Work Performance	Spearman rho (rho)	-0,15	-0,06	**0,24****	0,14	-0,121	0,11	**0,35****
		0,09	0,55	**0,01**	0,12	0,19	0,25	**0,00**
	n	121	121	**120**	121	121	121	**121**

Note. rho-correlation coefficient, p (rho)- statistical significance of the correlation, n – number of respondents. Grip – grip capacity, WB- Well-being, Sat. With life. – Life satisfaction, PA (full) – total physical activity, Max. Consumption O_2 – assessment of maximum oxygen consumption, Hid. – hydration, Sat. at work – satisfaction at work.

Table 16 shows the correlations between workplace performance and well-being, hydration, physical activity, physical performance, and life and job satisfaction. Job performance was statistically significantly associated only with life satisfaction (positive and low correlation 0.24, p = 0.01) and with work (positive and low correlation 0.35, p < 0.001). Better satisfaction scores were associated with better work performance.

Table 17

Spearman correlation coefficients between workplace performance and grip capacity in men and women

			Grip Capacity
Female	Performance in the workplace	Spearmanov rho	-0,18
		p (rho)	0,15
		n	65
Male	Performance in the workplace	Spearmanov rho	-0,14
		p (rho)	0,30
		n	57

Table 17 shows the correlation between workplace performance and grip capacity for men and women. Workplace performance was not statistically significantly associated with grip capacity in men (rho = -0.18; p = 0.15) and women (rho = -0.15; p = 0.30).

Since Spearman's correlation for estimating maximal oxygen uptake as well as grip capacity was not statistically significant in either males or females, it was not specifically reported in the table.

6.5 Interpretation of relationships between variables

Analysing the impact *of physical activity* on employee performance, we observed several correlations between different activities and performance in the workplace. Although some correlations did not achieve high statistical significance, they are still important for understanding the dynamics between these two variables.

It is important to highlight a statistically significant relationship, where a negative coefficient of sedentary activity was observed in relation to physical activity in the workplace (Pearson correlation coefficient r=-0.21, p<0.05). This result shows us that a higher level of sitting correlates with less physical activity in the workplace, and this correlation is statistically confirmed.

By gender, we observed interesting differences in the effect of physical activity on dynamometry (a measure of grip capacity) and the assessment of maximal oxygen consumption. In men, we found that their grip capacity depends on the level of physical activity in the workplace (GPAQ_D), as we observed a positive correlation (Pearson correlation coefficient r=0.27, p<0.05), as well as in recreation (GPAQ_R), where there is a positive correlation (Pearson correlation coefficient r=0.34, p<0.01). In contrast, we did not observe such correlations in women.

However, we observed a correlation in both genders between those who recreate regularly (GPAQ_R) and their estimate of maximal oxygen consumption. This correlation is positive and statistically significant in both genders. In men, the correlation coefficient (Pearson correlation coefficient r= 0.45, p<0.05), and in women it is slightly lower (Pearson correlation coefficient r=0.43, p<0.05). That is, physical activity has equally beneficial effects on the assessment of maximum oxygen consumption in both genders.

Conversely, we observed that only the correlation between the correlation of sitting time (SEDI) and dynamometry (Pearson correlation coefficient of r=0.33, p<0.01) was

statistically significant in women. At the limit of statistical significance, there is also a negative correlation between sitting time and the estimate of maximum oxygen consumption (Pearson correlation coefficient $r=-0.28$, $p<0.05$).

In addition, we found that men who have a higher grip capacity are less likely to perceive various stressful situations. This relationship is negative (Pearson's correlation coefficient $r = -0.27$, $p < 0.05$, Spearman's correlation coefficient is not statistically significant). In this case, it is more appropriate to reject the hypothesis, since there is no statistically significant correlation, given that the rho coefficient is a more appropriate measure of correlation with respect to the existing distribution of data. However, the low but statistically significant r coefficient can still be understood in the sense that it makes sense to check and investigate the existing relationship in some other way in the future.

Based on the above, hypothesis **H1**: An individual who takes care of his own physical activity and is more physically capable is more successful in the workplace –is *rejected.*

Through the evaluation of the statements describing the symptoms of *hydration* (NIJZ, 2016) that we posed to the respondents, we cannot statistically claim that a relationship between hydration and performance in the workplace was found in our sample. Although many (Brown and Ryan, 2003; Wagh-Gumaste, 2022) confirmed.

Hydration shows a barely perceptible correlation (Pearson correlation coefficient) with the well-being of an individual $r=0.18$, $p<0.01$, which, although the coefficient is positive, represents a negative correlation, since the well-being questionnaire (GHQ) is set in such a way that it tends to a minimum number of points, so it could be said that less hydrated employees also feel worse.

Another positive correlation was shown, and that is with the perception of stress, which is (Pearson's correlation coefficient) $r=0.19$, $p<0.05$, which means that those who perceived more stress also recognized more symptoms of dehydration in themselves. Spearman's correlation coefficient, however, is not statistically significant. Since it is more appropriate for our data to trust Spearman's correlation coefficient, we also rejected this hypothesis.

Hypothesis **H2:** An individual who is properly hydrated is more successful in the workplace – is *rejected.*

Well-being (GHQ) in a sedentary workplace does not show a correlation with workplace performance (EPT). The well-being questionnaire had surprisingly random values.

Otherwise, we detected a negative correlation (Pearson correlation coefficient) between well-being and life satisfaction (SWLS) $r = -0.30$, $p<0.01$ and job satisfaction (JSQ) $r=-0.29$, $p<0.01$. This means that those who are more satisfied (at work and in life) also feel better (we tended to keep GHQ to the minimum).

However, there is also a correlation (Pearson's correlation coefficient) with problems in the last month of $r=0.19$, $p<0.05$ and a feeling of dehydration $r=0.18$, $p<0.05$, which can be described as an extremely low effect on the variable due to its low values.

So, hypothesis **H3:** An individual who feels good at work is more successful at work – is *rejected.*

The correlation between the dependent variable of sedentary performance (EPT) and *stress* (STRESS) is positive and statistically significant, but extremely low, with a Person correlation coefficient of $r=0.17$, $p<0.05$, with the Sperman correlation coefficient showing no statistical significance. With respect to the dependent variable stress (STRESS), only one other low statistically significant relationship was observed, namely with hydration (HIDR), with the Pearson correlation $r=0.19$, $p<0.05$). However, even this connection is extremely low. Hydration does not show a statistically significant relationship with the other variables. These results reveal to us that despite the statistical significance of some correlations, correlation coefficients remain extremely low. This highlights that the correlation between the variables under consideration is limited.

In interpreting these findings, it is essential to consider both the weak values of the correlation coefficients and the statistical significance, reflecting the need for caution when concluding about the relationships between these variables.

Because the statistical correlations are so low, hypotheses **H4:** An individual who successfully manages stress loads is more successful in the workplace – is *rejected.*

According to the correlation table above, performance in the workplace (EPT) is most closely related to *job satisfaction* (JSQ), as the value of the correlation coefficient is the highest of all and is (Pearson correlation coefficient $r=0.38$, $p<0.01$, Spearman's correlation coefficient $rho=0.35$, $p<0.001$). A correlation coefficient of 0.38 is a moderate positive correlation, which means that people who are more successful at work are also more satisfied with their work. The second parameter of life satisfaction (SWLS) proved to be a statistically significant positive correlation (Pearson correlation coefficient $r=0.29$, $p<0.01$, Spearman's correlation coefficient $rho=0.24$, $p<0.01$).

Since life satisfaction is relatively strongly linked to performance in the workplace, let's take a closer look at what is associated with it. With the same Pearson correlation of $r=0.31$, $p<0.01$, these are job satisfaction and well-being, and in inverse proportion health problems in the last three months are $r=-0.31$, $p<0.01$. According to the research presented in the introductory part, health problems could also be attributed to the physical inactivity of respondents.

Thus, **H5:** An individual who experiences a high level of life satisfaction is more successful in the workplace – is *accepted.*

Briefly summarizing the results, the first conclusion is that satisfied employees are more successful at work. Satisfaction, not only with work, but also with life, is the most positively correlated with performance in the workplace of all our measured variables. Life satisfaction is also positively associated with job satisfaction and well-being, and negatively with the perception of problems. Individuals who are active outside of work are more successful at work and have fewer health problems. As a result, we can conclude that they also have fewer sick leaves and contribute more to the success of the entire organization.

The results presented should also be understood in the context of a sedentary workplace, which means that even less physically active employees, or perhaps even unhealthy, are likely to perform their work satisfactorily (perhaps even successfully). Of course, the question arises as to how much this affects their health, well-being and satisfaction in the long term or in situations where their work environment changes. If we didn't just focus on sedentary jobs, the impact would certainly be different.

6.6 Designing an Optimal Model - Regression Analysis

At the beginning, we show a theoretically motivated model, and then we wanted to find the optimal model of variables that best predict performance in the workplace.

In the regression model, the dependent variable Self-Assessment of Work Performance, (EPT) was predicted using the following independent variables of physical activity and performance, hydration, stress, satisfaction and well-being.

In regression analysis, statistical significance is marked with asterisks in the following manner: '***' $p < 0.001$; '**' $p < 0.01$; '*' $p < 0.05$

In interpreting the data, we will focus on R, which tells us how strong the relationship between the dependent variables is compared to the independent variable. We will also use the value of R to calculate the coefficient of determination R^2, which will tell us what proportion of the variability of the dependent variable can be explained by the independent variable or variables in the regression model. However, R^2 has some limitations that can be solved by using a corrected R^2, since with each additional independent variable in the R^2 model, it increases even if that variable does not contribute to explaining the variability of the dependent variable. Given that we have relatively many variables in our model, it makes sense to monitor the corrected R2 as well, as it takes this limitation into account by including an indicator for the complexity of the model (in our case, the number of independent variables).

We checked the collinearity between the independent variables in the data by calculating the correlation matrix and the variance inflation factor. After cleaning the data, the correlation matrix showed low correlations between the variables, with a peak value of 0.404 for the DINMAX grip capacity variables and the VO_2max maximum oxygen consumption estimate. The variance inflation factor values were all below 2, with the highest value being 1.297 for the VO_2max maximal oxygen consumption estimate variable, and the lowest being 1.059 for the stressor variable. This means that there is no strong relationship between the independent variables, which provides adequately stable and reliable estimates of the coefficients or confirms that linear regression analysis is allowed to be used.

6.6.1 Regression model for job performance forecasting

Due to the bimodality of some variables (dynamometry and maximal oxygen consumption), we prepared a regression analysis in the first part specifically for women and especially for men.

Although binary logistic regression would be more appropriate for our research due to the value of our data, we opted for simple and multiple linear regression since we have unevenly distributed respondents between successful (78.5%) and unsuccessful (21.5) in the predictive variable (Table 13). Due to the small proportion of respondents in the unsuccessful group, the results could be distorted. An additional reason for choosing linear regression is that we have already found a linear correlation between performance at work and life and job satisfaction in the correlation analysis.

Since we have a large number of variables, we are more appropriate to consider only total physical activity (GPAQ_FULL) for our sample. In the first and second models (for men and women), we used all the variables that relate to our hypotheses. Since we have many variables in the regression model for the sample we had, we also further did models with fewer variables (1, 2, 4, 5, and 6), where we focused on those that turned out to be more statistically significant in the link analysis. The next two, however, are shown only for a rough understanding of the differences between the genderes. First, we will present the results for women.

Table 18

Coefficients of variables of the regression model for women

	Assessment	***Std. error***	***T value***	***p (t)***	
Constant	3,628	0,550	6,595	0,000	***
DINMAX	-0,005	0,008	-0,674	0,503	
GHQ	-0,014	0,107	-0,133	0,895	
SWLS	0,057	0,040	1,415	0,163	
GPAQ_FULL	0,000	6.69E-05	3,019	0,004	**
VO_2max	-0,006	0,005	-1,136	0,261	
HYDRATION	0,057	0,044	1,277	0,207	
JSQ	0,105	0,072	1,441	0,155	
STRESS	0,001	0,008	1,286	0,204	

Note. DINMAX – grip capacity – dynamometry. VO_2max – Assessment of maximum oxygen consumption. SWLS – Life satisfaction. JSQ – job satisfaction. GHQ – well-being. DEHYDR – Hydration. GPAQ_FULL – joint physical activity. STRESS – stress load. Months.

In women, we have R= 0.54, which tells us that there is a moderate positive correlation between the independent and dependent variables. The multiple R^2 (0.29) explains only 29% of the variability of the dependent variable using all fourteen independent variables. The remaining 71% of variability remains unexplained and may be due to other factors not included in the model. Of all our variables, overall physical activity (GPAQ_ FULL) has the strongest impact on women's performance in the workplace. The t-value of our variable is 3.019, with a p-value of 0.004. A low p-value indicates that our independent variables are statistically significant and contribute to the explanation of the variability of the dependent variable.

Table 19

Coefficients of variables of the regression model for men

	Assessment	**Std, error**	**T value**	**p (t)**	
Constant	2,952	0,65	4,529	0,000	***
DINMAX	-0,01	0,01	-1,41	0,17	
GHQ	0,08	0,14	0,56	0,58	
SWLS	0,12	0,05	2,26	0,03	*
GPAQ_FULL	-8,53E-05	7,65e-05	-1,12	0,27	
VO2 max	0,00	0,01	0,11	0,92	
HYDRATION	0,06	0,08	0,71	0,48	
JSQ	0,23	0,08	3,06	0,00	**
STRESS	0,01	0,01	1,28	0,21	

Note. DINMAX – grip capacity – dynamometry. VO_2max – Assessment of maximum oxygen consumption. SWLS – Life satisfaction. JSQ – job satisfaction. GHQ – well-being. DEHYDR – Hydration. GPAQ_FULL – joint physical activity. STRESS – stress load.

In the case of men, R = 0.75 means that there is a moderate positive correlation between the independent and the dependent variable. Multiple R^2 (0.331) explains 33.1% of the variability of the dependent variable using all the independent variables combined. This means that the model is moderately well adapted to the data. The F-statistic is 2.81 with a p-value less than 0.05, so the entire regression model is statistically significant, or at least one of the independent variables makes a significant contribution to predicting the dependent variable. The two variables of satisfaction appear to be JSQ (job satisfaction) of 3.064, with a p value of less than 0.01, and SWLS (life satisfaction) of 2.259 with a p value of less than 0.05.

The multiple R2 in females (0.29) explains less model variability than in males, only 29% of the variability of the dependent variable using all independent variables combined, so the male model is slightly better at predicting.

Job satisfaction (JSQ) has the strongest influence on the prognosis of men, and life satisfaction (SWLS) also has a significant impact on the prognosis. For women, however, total physical activity (GPAQ_FULL) has a significant impact. Thus, we find that the models (in both women and men) explain less than a third of the variability, which means that more than two-thirds of the variability remains unexplained.

The existing model represents the basic information for defining the holistic impacts of predictors on performance at work. Due to all the existing limitations of the data, I present the 4th, 5th and 6th predictor models below, which serve only as supplementary data to facilitate the interpretation of the meaning of individual predictors.

6.6.2. Models with 4, 5 and 6 variables

Given that the theoretical model predicts the dependent variable relatively poorly, the question arises as to which variables in the given data best explain the self-assessment of performance at work. To answer this question, among all possible combinations of predictive variables, we looked for the subset that best predicts self-assessment of performance at work.

We used the step-by-step elimination method, which involves an iterative process of adding and removing variables from the model. At each step, we checked which variables statistically significantly improved the model and kept them, while we removed the less important variables by the so-called forward-looking selection or "*Forward selection*". We checked with all the variables that we captured in the research. As a criterion for the selection of the best model, we used R^2 (coefficient of determination), which considers both the amount of explained variance and the parsimony of the model (the smallest possible number of variables). We also focused on the predictive power of the model, which we verified using cross-validation.

After performing an iterative procedure, we selected a final regression model that included those independent variables that had the strongest and statistically significant impact on the dependent variable. We interpreted the coefficients of the final model and assessed its predictive power. This process ensured that the final regression model was based on the best possible predictive variables, allowing for more accurate predictions of the dependent

variable. Below we show the results for the best models with four, five and six variables. Given that the models that best predict performance included variables that do not have bimodal values, we analysed them uniformly.

6.6.2.1. A model with four predictive variables

If we wanted to predict performance in the workplace with four variables, the statistically most appropriate variables are both job satisfaction (JSQ) and life satisfaction (SWLS), ability to manage stress (STRESS), and inversely proportional to sitting time (SITT). Given that only non-bimodal variables are included in the model, we did not divide the calculation into males and females.

Table 20

Coefficients of the model of four variables.

	Grade (b)	Std. error	T value	p (t)	
(Constant)	74,66	5,31	14,05	0	***
SWLS	1,33	0,65	2,06	0,042	*
JSQ	4,67	1,10	4,23	4.64e-05	***
SITT	-0,43	0,21	-2,02	0,05	*
STRESS	1,34	0,61	2,19	0,03	*

Note. SWLS – Life satisfaction. JSQ – job satisfaction. STRES_ G– stress load. SIT – hours of sitting.

Thus, the correlation coefficient R is equal to 0.507, indicating a moderately positive correlation between the independent and dependent variables. In the case of four variables, $R^2 = 0.26$ means that 26% of the variability of the dependent variable in the data can be explained by the independent variables in the model. Given the small number of variables, the corrected R^2 is not that important.

This model with the fewest variables already has almost the same predictive power as the full theoretically motivated model, ($R^2 = 0.26$), and if we consider the simplicity of the model, its predictive power is much higher (adjusted $R^2 = 0.23$).

Of the variables related to physical activity, statistically significant ($p < 0.05$) contributes to the lowering of the prognosis of self-assessment of performance at work, the average number of hours of sitting per day. Stress load also contributes to the forecast ($p < 0.05$), but contrary to expectations, the impact is increased by the prediction of self-assessment of performance at work.

6.6.2.2. Model with five predictive variables

To the four predictive variables from the previous model, we added the body movement variable for the purpose of transport (GPAQ_TR). Given that there is no difference between the genderes in the possibilities of transport to and from work, we considered both genderes together here and in the following regression analysis. We also did this because these models do not have body performance variables (fist clench capacity and maximal oxygen consumption) and are also more appropriate in terms of sample size.

Table 21

Coefficients of the model of five variables

	Assessment	**Std. nap.**	**T value**	**p (t)**	
Constant	3,42	0,23	14,93	1.4E-28	***
SWLS	0,07	0,03	2,27	0,03	**
JSQ	0,15	0,05	2,95	0,00	***
STRESS	0,01	0,01	1,63	0,10	
SITT	-0,01	0,01	-1,66	0,09	
GPAQ_TR	-3E-05	0,00	-0,25	0,80	

Note. SWLS – Life satisfaction. JSQ – job satisfaction. STRES_ G– stress load. SITT – hours of sitting. GPAQ TR – physical activity in transport

The results of the regression analysis show that the model explains about 19.1% of the variability in the dependent variable (EPT), which is expressed by an R^2 value of 0.191. The adjusted value of R^2 (Adj. R^2) is 0.156, which considers the number of independent variables in the model. The F-statistic is 5.388 with an associated p-value of 0.000, indicating that the model as a whole is statistically significant.

Among the independent variables, SWLS (life satisfaction) and JSQ (perceived social support) are statistically significant, while stress, SITT, and GPAQ_TR are not statistically significant in predicting EPT. Incorporating an estimate of transport movement into the model does not increase its predictive power. Since we include a variable that has no statistically significant effect on the dependent variable, its inclusion slightly reduces the fit of the data.

6.6.2.3. A model with six predictive variables

The best model after the revised R2 is the six-variable model. Here, performance in the workplace is predicted by job satisfaction (JSQ) and life satisfaction (SWLS), physical activity for the purpose of transportation (GPAQ TR), sedentary activity (SEDI), sense of ability to cope with stress (STRESS), and perception of health problems (PROBLEMS).

Table 22

Coefficients of the model variables of the six variables

	Assessment	**Std. error**	**T value**	**p (t)**	
Constant	3,311798	0,24	13,79	5.78E-26	***
SWLS	0,08	0,03	2,58	0,01	**
JSQ	0,15	0,05	2,92	0,00	***
STRESS	0,01	0,01	1,39	0,17	
SITT	-0,01	0,01	-1,37	0,17	
GPAQ_TR	-1.9E-05	0,00	-0,16	0,88	
PROBLEM	0,04	0,03	1,45	0,15	

Note. SWLS – Life satisfaction. JSQ – job satisfaction. STRESS – stress load. SITT – hours of sitting. GPAQ TR – physical activity of movement in transport. PROBLEM – perceived health problems.

The results of the regression analysis for the 6 variables show that the model explains about 20.6% of the variability in the dependent variable EPT, which is expressed by an R-squared value of 0.206. The adjusted value of R^2 (Adj. R^2) is 0.164, which considers the number of independent variables in the model. The F-statistic is 4.88 with a corresponding p-value of 0.00, which indicates that the model is statistically significant. Among the independent variables, SWLS (life satisfaction) and JSQ (job satisfaction) are statistically significant, while STRESS, SITT, GPAQ_TR, and PROBLEM are not statistically significant in predicting EPT.

Health problems (PROBLEM) slightly increase the prediction of self-assessment of performance at work according to the five-variable model.

So, statistically, the strongest correlations with performance in the workplace are shown by a model with four variables (the adjusted R^2 is 0.23), followed by models with all the variables that we divided by gender. The male model has a slightly higher predictive power (the male predicts 33%, while the female predicts 29%). At the very least, they predict models with five and six variables, which have similar predictive power.

Table 23

Comparison of R, R2, and corrected R2 during the regression analyses shown

	All variables		4	5	6
	Man	Women	The model that best fits the data		
R	0,58	0,54	0,51	0,44	0,45
R^2	0,33	0,29	0,26	0,19	0,21
Adj R^2	0,21	0,19	0,23	0,16	0,17

Note. The table shows the values of R, R^2, and adjusted R^2 in different regression analyses.

If we compare the regression analyses that we have done specifically for men and women, we find that in our case the best is R = 0.58, where all variables are classified and represent only male respondents. Also, R^2 in this regression analysis shows that the independent variable can explain 33% of the variability of the dependent variable. This is not a result that can be a good predictor for the dependent variable.

Figure 4

Comparison of R2 and customized R2 between models

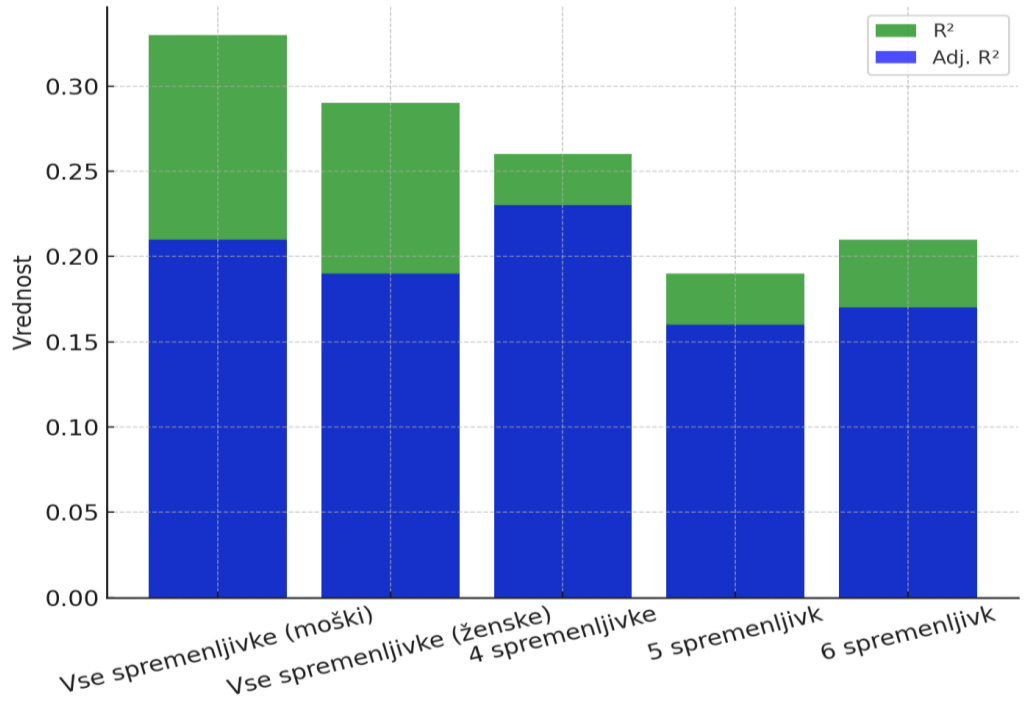


Figure 4 shows a comparison of the explanatory power of different regression models, which include 4, 5, and 6 predictive variables. The green bars represent R^2, which indicates the total explanatory power of the model, while the blue bars (adjusted R^2) consider the number of variables in the model.

The graph shows that R^2 increases with the number of variables, while adjusted R^2 decreases slightly, indicating a reduced added value of the new variables. This suggests that additional variables contribute less to explaining variance, which is important in the design of practically useful models. These results highlight the need to select the optimal number of variables to balance the complexity of the model with its performance.

Although we assumed that models where 4, 5 or 6 variables are classified would better predict employee performance, this is not the case. These three regression analyses can explain 19-26% of the variability of the dependent variable. This one is a little worse than the female model and a little worse than the male model. Thus, we find that the independent variable cannot fully explain all the variability of the dependent variable, but only a good quarter (in women) or a third (in men). However, women are also clearly more strongly influenced by other variables that we did not include in our study.

Given that we found that the Spearman correlation coefficient is more appropriate for our data and that it has a statistically significant relationship between performance at work and satisfaction (with life and also work), we also prepared a *simple and multiple linear regression*, where we used only those two variables that turned out to be statistically significant, which is also more appropriate for our sample size.

Logistic regression *was also performed*, but it did not show statistically significant results and was not included in the results presentation.

Table 24

Impact of life satisfaction on workplace performance

r	r2	Customized r2	S.N.N.	F	p (f)
0,303	0,092	0,084	8,502	12,07	0,001

	Non-standardized coefficient		Standardized coefficient	t	p (t)
	Value	S. N.	Beta		
Constant	86,023	3,438		25,02	0,000
Life satisfaction	0,481	0,138	0,303	3,474	0,001

Note. r-correlation coefficient, r2- clarified variance, S.N.N. - standard prediction error; F-test statistics, p (F/t) - statistical significance; S.N. - standard error

Table 24 shows the impact of life satisfaction on performance in the workplace. The impact of life satisfaction was statistically significant (p = 0.001) and from it we were able to explain

the 8.4% variability in performance in the workplace. For each additional point of the life satisfaction score, job performance increased by 0.481 points (job performance = 86.023 + 0.481 x life satisfaction score).

Figure 5

Scatter plot depictions of the odds between life satisfaction and success at work

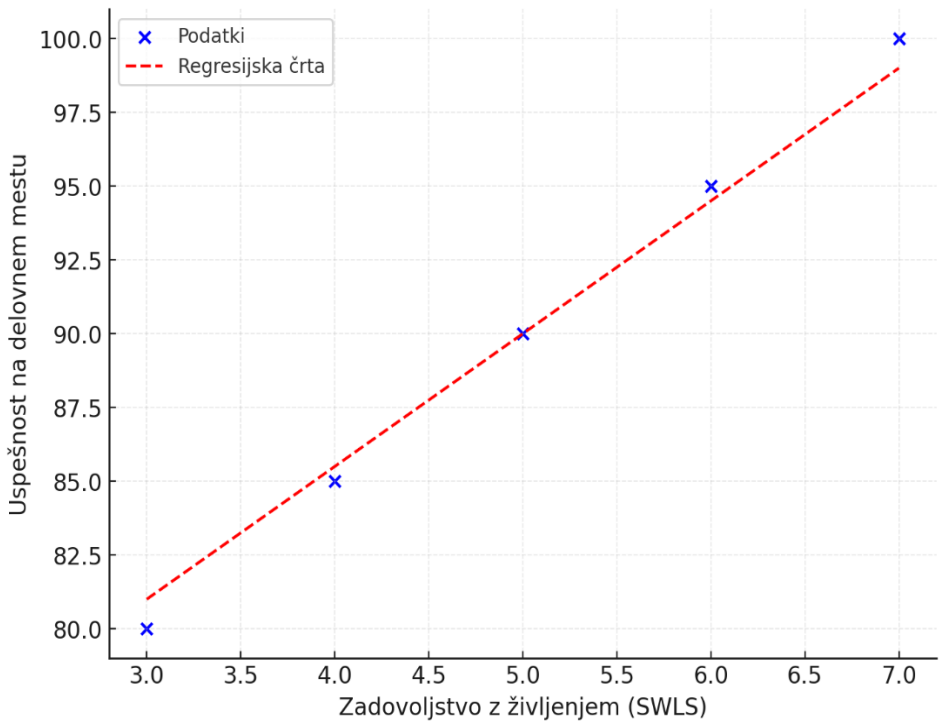


Figure 5 shows the relationship between life satisfaction (SWLS) and performance in the workplace. The regression line (red line) indicates a positive trend, which means that as life satisfaction increases, so does performance in the workplace. The correlation is important because life satisfaction explains part of the variance in employee performance ($R^2 = 0.33$). Based on the graph, it can be seen that employees with higher SWLS scores are more successful. This finding confirms the importance of interventions aimed at improving employee life satisfaction.

Table 25

Impact of job satisfaction on workplace performance

r	r2	Customized r2	S. N. N.	F	p (f)
0,309	0,096	0,088	8,528	12,705	0,001

	Non-standardized coefficient		Standardized coefficient	t	p (t)
	Value	S.N.	Beta		
a	83,329	4,124		20,204	0,000
Job satisfaction	0,293	0,082	0,309	3,564	0,001

Note. r-correlation coefficient, r2- clarified variance, S.N.N.-standard prediction error; F-test statistics, p (F/t)- statistical significance; S.N.-Standard Error

Table 25 shows the impact of job satisfaction on workplace performance. The impact of job satisfaction was statistically significant (p = 0.001) and could explain the 8.8% variability in workplace performance. For each additional point of the job satisfaction score, job performance increased by 0.293 points (job performance = 83.329 + 0.293 x job satisfaction score).

Table 26

Impact of life and job satisfaction on workplace performance

r	r2	Customized r2	S.N.N.	F	p (f)
0,374	0,140	0,125	8,279	9,498	0,000

	Non-standardized coefficient		Standardized coefficient	t	p (t)
	Value	S. N.	Beta		
Constant	77,831	4,675		16,648	0,000
Life satisfaction	0,400	0,140	0,254	2,862	0,005
Job satisfaction	0,204	0,084	0,215	2,421	0,017

Note. r-correlation coefficient, r2- clarified variance, S.N.N.-standard prediction error; F-test statistics, p (F/t)- statistical significance; S.N.-Standard Error

Table 26 shows the impact of life and job satisfaction on job performance. The correlation between life satisfaction, job satisfaction and performance at work was positive and low (r = 0.374). The impact of life and job satisfaction was statistically significant (p < 0.001) and from this we could explain the 12.5% variability in performance at work. In the regression model, life satisfaction (beta = 0.254; p = 0.005) and job satisfaction (beta = 0.215; p = 0.017) had a statistically significant impact on job performance.

For each additional point of the assessment of life satisfaction, the performance at work increased by 0.400 points and for each additional point of the assessment of job satisfaction by 0.204 points (performance at work = 77.831 + 0.400 x assessment of life satisfaction + 0.204 x assessment of job satisfaction). Among the most and least satisfied respondents from our survey and we see that the performance of the most dissatisfied is 84,679, while the most satisfied is 104,691.

Thus, hypothesis **H6**: With the help of selected variables that define lifestyle, we can't statistically significantly predict an individual's performance in the workplace, so hypothesis is *rejected.*

7. Discussion

The primary objective of this study was to explore the relationships between workplace performance in sedentary occupations and key influencing factors, including physical activity, hydration, job satisfaction, life satisfaction, well-being, and the perception of stress. The aim was to develop a model that could effectively enhance workplace performance. The findings indicate statistically significant correlations between job performance and certain examined factors, specifically job satisfaction, life satisfaction, and, to a lesser extent, physical activity. However, not all factors exhibited a significant association. In contrast to previous research (Edwardson, Gorelly, & Davies, 2012; Miller, Zivnuska, & Kačmar, 2019; Ausat et al., 2023; Wu et al., 2020), our study did not establish a statistically significant relationship between workplace performance and well-being, stress perception, or hydration. The results suggest that optimizing workplace performance is primarily dependent on satisfaction—both with one's job and overall life.

Sedentary work has emerged as a critical public health issue in post-industrial societies (Munir et al., 2018; Lopez-Valenciano et al., 2020). Numerous approaches have been proposed to increase physical activity and improve employees' overall health and well-being during working hours (Meneguci et al., 2015; Yen et al., 2017; Choi et al., 2021; Lee et al., 2022; Hwang et al., 2022). Consistent with this body of research, our findings indicate that commuting to and from work influences workplace performance. However, other forms of physical activity did not show a statistically significant correlation with performance, which is likely due to the study’s focus on sedentary occupations.

On a global scale, numerous studies have examined job satisfaction and workplace performance in relation to various factors (Yen et al., 2017; Lopez-Valenciano et al., 2017; Munir et al., 2018; Lee et al., 2022; Rosenkranz et al., 2020; Patterson et al., 2018). This reflects the growing awareness of the significance of research in this field and its practical implications. Extensive research has also been conducted on sedentary occupations (Ford & Caspersen, 2012; Edwardson et al., 2012; Thorp et al., 2010; Wilmot et al., 2012; Lynch, 2010; Chau et al., 2013; Pedišić et al., 2014; Zhai, Zhang, & Zhang, 2014), particularly regarding their impact on quality of life, productivity (Rosenkranz et al., 2020), and consequently, workplace performance. Given its relevance in contemporary society, investigating this topic within the Slovenian context was a central objective of our study.

A key observation at the outset of this research was the limited availability of in-depth studies in the Slovenian language focusing on the local population. Several researchers (Dodič Fikfak et al., 2006; Ministry of Health of the Republic of Slovenia, 2007; Strel et al., 2004; Strojnik, 2019) have highlighted that, in line with broader lifestyle trends, Slovenia is also experiencing

an increase in health, social, and economic costs associated with a predominantly sedentary population across all age groups. These shifts in occupational, transportation, and leisure activities have led to prolonged sitting, a key concern addressed in our study. Another factor of significance is the historically low unemployment rate, which stood at 3.9% in the third quarter of 2023 (Osvald Zaletelj & Vratnar, 2023). In response, labor market trends have adapted by offering employees greater flexibility, including increased opportunities for remote work—predominantly sedentary in nature—alongside initiatives aimed at promoting health, satisfaction, and overall well-being (Šarotar Žižek & Mulej, 2023).

7.1 Correlation between independent variables and Work Performance

To conduct a cross-sectional cohort study, we first needed relevant employee data. A lot of effort and information was directed into the organization of the selection, design and preparation of the sample and measurements, aimed at ensuring the ethical use of the research results. According to the inclusion criteria, that in a work organization, the employees to be investigated sit at least 85% of their working time, and in the results, we found that this is true, as on average respondents were physically active for 11% of their working time.

We invited 81 organizations to participate, and 22 of them (less than a third) agreed to participate in the survey after a more detailed explanation (in writing and by telephone) of the study and its purpose, in which 122 respondents were then included. These were fairly evenly educated, by gender, and hierarchically divided. One of the findings of the study, which was observed quite early in the research, is that it is a specific organizational culture in the conditions of the Slovenian work environment - which is not highlighted by foreign researchers (Kosec et al., 2022). This is manifested through aspects of uncertainty, doubts and worries – that the collection of data will not affect their status in organizations, the evaluation of their performance (and consequently the loss of bonuses), that this data would not be obtained by their superiors, and so on. However, it is also necessary to emphasize the fact that, on the other hand, employees who participated responsibly and were more interested in the content of the survey participated (Kosec, 2024b).

7.1.2 Work Performance

It is possible to evaluate performance in the workplace in a very specific way. It was important for us to have a questionnaire that was suitable for a variety of jobs and individuals in different positions in the hierarchy of the organization.

A questionnaire on performance in the workplace (EPT) and included a self-assessment of performance in the workplace. This also envisages the second part, which is intended for periodic monitoring of the set goals, where through three open questions, where it is checked whether they have achieved the goals they set themselves in the previous assessment (CAI, 2011). Since we did not have the starting points from the previous meeting, and because we provided anonymity to employees, we abandoned the implementation of this part of the questionnaire. In companies, this content is often processed by managers through the so-called annual interviews. There, they set goals for the next period, and at the end, they can add content that they feel hasn't been covered but is also relevant to their performance in the workplace. Many authors suggest (Knight et al., 2017; Ausat et al., 2023), should leaders in organizations who are trying to gain a sustainable competitive advantage by improving the effectiveness of successful onboarding interventions.

An important feature of our research is the fact that we obtained a very high average value (4.31) for the dependent variable – self-assessment of performance in the workplace. High self-scores are associated with a characteristic of the sample or work climate, and indirectly with the culture of the organization (Kosec et al., 2022). Our research involved individuals who are characterized by being cooperative and engaged and dedicated employees. Others, however, who are often absent from the hospital (perhaps they were also present this time when the research was with them) or do not want their work to be evaluated in any way, did not participate in this survey. To reduce deviations (Campion et al., 2011), it would make sense to use a different methodology for determining workplace performance for further research. One option is to take a similar approach to some of the other authors, e.g. the group of Tušak, Dimec and Masten (2008b, pp. 49–50), who used their own questionnaire with claims of performance in the workplace, which they compiled together with the respondents' leaders, when assessing work efficiency in the Slovenian Armed Forces. On the same rating scale as us (from 1 to 5), they got a score of 3.59 (SD 0.7) in the first model and 3.45 (SD 0.64). It seems that a similar approach would be more appropriate for further analysis. In our case, we did not decide to do this, because it was essential that the questionnaire was suitable for different activities and different work environments and jobs (from operational workers to owners of organizations) and they had only one level in the hierarchy of the organization. So, this is where it would be to choose the middle ground in the future. Indicators could also be used to objectify performance in the workplace, which would be evaluated from several perspectives. Such a method is 360° (DeNisi and Kluger, 2000), where in addition to self-assessment, the individual also receives an assessment of a subordinate, superior, co-worker (hierarchically from the same level) and in some cases an assessment is also made of someone outside the work environment, who knows the evaluated person well. The average of all grades is then the final score of an individual's performance.

7.1.3 Physical Activity

The sample included employees who have sedentary work, so we were not surprised by the result that more than a third (36%) of respondents are not physically active at work. Other studies on sedentary workplaces have yielded similar results (Van Uffelen et al., 2010). At the first results, we were partly surprised by the results on the role of physical activity within all variables. According to some studies on the Slovenian population (Tušak and Pori, 2008; Meh, 2017, Zupanič and Korošec, 2021) would expect a link between physical activity and work performance. It is likely that our results should be understood since we focused on sedentary jobs and conducted the study in the winter, when people are less physically active and so we did not confirm the H1 hypothesis.

Given that convincing positive effects on health do not require very intense physical activity, moderate movement is sufficient (Kohl, 2001; Pišot, 2004; Kostanjevec and Torkar, 2005), which can also be implemented in a sedentary workplace environment, the result is worrying from the point of view of long-term health concerns. Total physical activity (at work, transport and recreation) is the strongest influence on workplace performance in women in the regression model (t value = 3.019; p-value is 0.004), suggesting that although we did not find statistically significant correlations between individual physical activity variables and performance, the impact of total physical activity should not be neglected, The predictive proportion of total physical activity was the only statistically significant predictor of performance at work among all predictors. This is also confirmed by other studies that are presented in the literature review (Grimani, 2019) and confirm that physical activity in the workplace improves productivity, reduces absenteeism and increases work capacity. Interestingly, we did not detect this effect in a regression model for men, where the predictor of physical activity is statistically uncharacteristic.

It is difficult to competently discuss the causes, because we certainly lack empirical results to confirm any theses in this regard, but one possible interpretation of such results is offered. It is possible that to be successful in the workplace, we need some relatively low physical activity, which is a prerequisite. Once this basic necessary physical activity is achieved, from here on, increased physical activity no longer contributes to the increase in performance in the workplace. The results of a comparison of physical activity between men and women show that, basically, men are more physically active than women overall. Therefore, a possible interpretation is offered that the existing physical activity of men is already sufficient to meet the basic condition of being successful, while in the case of women, who are fundamentally less physically active, it is precisely this total physical activity that can be a factor that predicts performance in the workplace. Those who do more physical activity through recreation, transportation and work are more successful.

When we further looked in more detail for the correlations with physical activity, transport to work, we found that they are statistically too low, as they are also less related to physical activity during work and recreation of an individual, which can be assumed to a greater extent that employees who are active in one area will also be active in another and vice versa. We assume that statistically speaking, our associations were also low due to winter time, but we find it important to point out that inactivity is not good for human health in the long run (Ford and Caspersen, 2012; Edwardson et al., 2012; Pedišić et al., 2014; Blatnik et al., 2016; Zhai et al., 2014; Chau et al., 2013), and if such a situation persists for a long time, it is imperative to encourage employees to engage in physical activity. Otherwise, more absenteeism is to be expected (Machinist, 2019). It is worth noting that it is not necessary for individuals to think long-term on their own. Therefore, they should be encouraged to do so by their employer (Kosec and Sekulič, 2018).

7.1.4. Physical Performance

In the study, we analysed two variables of physical performance. The first was an estimate of the maximum consumption according to the Jackson formula, which we calculated, and the second was a dynamometer measurement of the grip capacity – dynamometry.

Average values of maximum oxygen consumption (VO2max) vary between different groups of people. Inactive adult men have a VO2max of about 35-40 ml/min/kg, while for inactive adult women this value is about 27-31 ml/min/kg. Moderately active men have a VO2max of about 42-46 ml/min/kg, and moderately active women have about 32-36 ml/min/kg. Highly trained endurance athletes can achieve values above 70 ml/min/kg, while highly trained endurance athletes can achieve values above 60 ml/min/kg (Kaminsky, Arena & Myers, 2015). Which coincides with our study, where the average capacity of maximum oxygen consumption was 35.97 ml/min/kg for sedentary women (40.86 ml/min/kg for men and 31.68 ml/min/kg for women.)

We did not detect a relationship between workplace performance and the value of maximum oxygen consumption. This can also be explained by the time spent in the work environment and experiences, which increase self-assessment of performance on the one hand, and age, on the other hand, which decreases physical strength (Chodzko-Zajko et al., 2009; Berčič, 2015). Analyses were also performed according to the more or less successful men and women in the parameters resulting from the individual's activity (reception capacity and estimates of maximum oxygen consumption). It can be observed that in both women and men there is no significant difference in terms of strength and their self-assessment of performance. Although no direct related studies have been found, it is worth mentioning a

study (Bautmans et al., 2007) that explains the correlation with self-assessment of strength and the degree of fatigue. It would probably also be indirectly related to performance in the workplace, since we assume that fatigue sets in after completing (more or less) demanding work tasks. Certainly, the interpretation of the results would be improved by objective indicators, such as the rate of absenteeism (absenteeism from work), which unfortunately we did not cover, but it would be interesting because we noticed that respondents have various health problems. An individual may subjectively assess that he has successfully completed the work, but from an organizational point of view, this assessment may not be true if the person is absent from his job due to illness. The application of objective benchmarks would probably show different values.

7.1.5 Hydration

Contrary to other research (Beats and Schneider, 2008; Beats, Miller, & Koubert, 2010; Podlogar 2016; Gradjean, 2007) we cannot confirm our hypothesis H2 that hydration affects an individual's work performance, although we included data on signs of already mild dehydration in adults, such as (NIJZ, 2015): thirst, dry mouth, poorer skin tension (turgor), fatigue, headache, excretion of less urine than usual, urine is darker, and also signs that indicate an intensification of dehydration, such as an even higher heart and respiratory rate, lowering blood pressure, convulsions, nausea, dry skin, dizziness, confusion, fainting, visual disturbances, and death.

Objectively speaking, sedentary employees are in the zone of thermal comfort. The rooms are mostly air-conditioned, their temperature does not change as they are not physically active, as a result, these correlations are statistically insignificant in our research, but we emphasize what has been confirmed by many so far (Tewari and Vinay, 2022; Grandjean and Grandjean, 2007; Baker et al., 2007; McMorris et al., 2006) that dehydration has a negative impact on an individual's mental abilities even in small proportions, since we know that the ratio of energy loss for work to the percentage of dehydration remains a relative constant until we reach the zone of incapacity. The reason that we did not perceive a statistically significant correlation is probably also since we focused on sedentary workplaces and singled out high temperature as a limiting element.

7.1.6 Well-being

For the well-being of employees in Slovenia today, we see various business practices (Google, Novartis, Ikea, Microsoft etc...), where they mostly follow the practices of larger multinationals and design various corporate wellness programs. They take care of well-being

in organizations by including content that increases the presence of positive emotions and mood (e.g. satisfaction) as well as the absence of negative emotions (e.g. depression, anxiety) (Eubanks et al., 2020). Life satisfaction, fulfilment and positive action, and a sense of full life is a priority for the generation entering the labor market (Wo et al., 2020; Clark et al., 2020; Rugger et al., 2020). Wellness has been defined as a combination of wellness and good functioning; experiencing positive emotions such as happiness and satisfaction, as well as developing one's potential, (some) control over one's own life, a sense of purpose, and experiencing positive relationships (Huang et al., 2021; Wo et al., 2020).

The demands of modern society, and especially of the generations to come, are reflected in the great development of the economics of subjective well-being, which is reflected in the large number of published studies reporting on quality of life and its factors (Diener and Seligman, 2004; Spagnoli et al., 2020; Hupert, 2014; Ausat et al., 2023; Huang et al., 2021; Abdin et al., 2018; Landry et al., 2017; Diener, 2018; Šarotar Žižek, 2012). Among the constituent components of subjective well-being, life satisfaction has been recognized as a distinct construct that represents a self-assessment of the quality of an individual's life (Ruggeri et al., 2020).

Life satisfaction is a self-assessment of an individual's overall quality of life (Huang et al., 2021) and is one of several overlapping aspects of subjective well-being (Diener et al., 2018). It is suggested that the most important thing for our performance in the workplace is that we love our work, as in the GHQ questionnaire, the statement that had the highest score confirmed that the individual enjoys everyday activities. In our study, well-being was not shown to be statistically significantly associated with performance in the workplace, and we did not confirm the H3 hypothesis. The results of the well-being questionnaire (GHQ) had surprisingly random values. In our study, the correlation was just below the limit of statistical significance, although several other studies (Ruggeri et al., 2020; Huppert, 2014; Wu et al., 2020; Clark et al., 2020 Diener et al., 2016) confirm this link. The cause here too could lie in the high self-esteem of the dependent variable.

7.1.7 Stress

From a practical point of view, the results on stress stress are interesting; Almost 82% of the sample was covered in the cumulative responses, excellent, good and good. Since we had a sample of individuals who had a fairly low perception of stress, we can also understand why it did not appear to be related to performance at work in correlations and we did not confirm the H4 hypothesis. This is probably attributable to a voluntary approach to the survey, as the employees knew the content of the survey in advance and those who did not feel comfortable about it assume that they did not join the survey (Kosec et al. 2022).

The effect of stress on self-assessment of performance has not been confirmed. This precludes the intuitive interpretation that individuals who are more stressful are less successful at work, or that people who are less successful at work are more stressful due to various pressures from the environment. There could be several reasons for this, but we highlight only a few. In the first place, it is most likely the so-called eustress or positive stress, which is also described by Tušak (Tušak, 2008). It is also worth thinking in the direction that those who are more successful at work must work harder and are therefore more stressed, or it is self-consolation in the sense that although they are more stressed, they are therefore more successful at work. Therefore, it makes sense to prepare appropriate trainings that empower employees in this regard, because as research has shown (Meško et al., 2013, Šarotar Žižek and Mulej, 2023), leaders who use situation-focused stress management strategies are significantly less absent from work and experience lower levels of stress than leaders who use stress management strategies focused on their emotions.

7.1.8 Satisfaction

On the independent variable of satisfaction (both with life and work), our research best coincides with other research in this area, as we found a relationship (Spearman and Pearson correlation coefficient) between job performance, both job satisfaction and life satisfaction, so we confirmed the H5 hypothesis. In our research, self-assessment of performance at work is influenced by both assessments of job and life satisfaction in an expected positive way. A negative impact of estimating the number of hours of sitting per day as a general indicator of physical inactivity is also expected. Life satisfaction is associated with self-perception (Miller et al., 2019) and is an important predictor of employee productivity in sedentary jobs (Rosenkranz et al., 2020; Yen et al., 2017; Lee et al., 2022; Choi et al., 2021). However, along with this, the authors also mention some methodological dilemmas, such as different measurement scales (Acerman et al., 2018) and empirical validations (Rabindra and Lalatendu, 2017), and the calculation of different distributions by supplementing the data (Evans et al., 2021) as well as different variations of satisfaction questionnaires (Smith, 2020).

Correlations between job satisfaction (Diener and Salingman, 2004; Spagnoli et al., 2020), life satisfaction (Chu et al., 2016; Choi et al., 2021) and work performance have already been proven in several countries and in our country (Tušak et al., 2008, Aristovnik, Ravšelj and Murko, 2024). As with us, sedentary behaviour has also been found to be negatively correlated with an active lifestyle (Choi et al., 2021) and with less efficient work performance (Diener and Salingman, 2004; Ackerman, 2018), which is also supported by our conclusions, so we confirmed this hypothesis H5.

Interestingly, the two statements related to relationships stand out when it comes to job satisfaction, the first with clients ("*If a client is dissatisfied, I usually fix what needs to be done and do my best to make them happy*"), and the second with colleagues (*I understand why it is important for an organization to have different people in it (by gender, age, race*)).

7.1.9 Models for optimal performance

The model for performance in the workplace has often been the subject of research (Gamberger, Fajfar & Kožman, 2005; Cajnko, 2015; Veingerl Čič, 2017) and included different or similar variables as we did. Different models (Campbell and Wiernik, 2015) are a good basis for insight into the breadth of the impact on job performance. Our model of performance in women shows a moderately positive correlation between independent and dependent variables. R is 0.54, and a multiple of R^2 explains 29% of the variability of the dependent variable using all fourteen independent variables. However, of all our variables, women's job performance is most strongly influenced by job satisfaction (JSQ). In the case of men, however, R = 0.58, which means that there is a positive correlation between the group of independent variables and the dependent variable. Multiple R2 explains 33.1% of the variability model of the dependent variable, so in men with interventions to increase job satisfaction, we can have a strong impact on their performance at work. Thus, even in the model that explains the most dependent variables of performance in the workplace, 66.9% remains unexplained, so we did not confirm the last hypothesis of H6.

In a simple linear regression analysis, we also calculated that life satisfaction affects workplace performance and could explain the 8.4% variability in workplace performance. To help organizations understand the calculation in practice, we have also developed an equation that predicts performance in a sedentary position according to the assessment of life satisfaction and job satisfaction. However, when we combine both satisfactions in a multiple linear regression, which we basically designed in the research, we find that the impact of life and job satisfaction is the 12.5% variability in performance in the sedentary workplace. The performance between the most and least satisfied respondents from our survey varies widely, with 84,679 for the least satisfied, while 104,691 for the most satisfied.

7.2. Study findings

This scientific monography should be seen as a pioneering work in this field in our country, from which we can learn a lot for the future. Certainly, the most important thing is to choose the correct measuring instruments that adequately measure the particularly dependent variable. Immediately after that, it is also necessary to insist on the inclusion of all selected organizations as well as individuals in the research, and to find a way to reach employees who are sick or otherwise absent.

However, when we look at the results, we can see that in the correlation analysis (both Sperman and Pearson), job and life satisfaction are the most correlated with workplace performance of all the variables measured. Life satisfaction, on the other hand, is related to job satisfaction, well-being and health. Likewise, in regression analysis, self-assessment of performance at work is best predicted based on variables of job satisfaction (at work and with life), which corresponds appropriately with another research (Donaldson and Donaldson, 2020; Miller et al., 2019; Kosec et al., 2022; Šarotar Žižek, 2012; Diener and Salingman, 2004; Bon and Kosec, 2016). However, considering the hour of sitting additionally contributes to the prediction of this self-assessment. A stressful load but interestingly increasing her prognosis. So, we can conclude that people who feel a greater burden (more stress) at work after overcoming it also get a sense of greater success in their work. In this work, our research coincides with other research (Diener and Salingman, 2004; Tušak et al., 2008; Donaldson and Donaldson, 2021; Šarotar Žižek, 2012) from this field, which also confirmed this connection.

The success of organizations with an emphasis on care for well-being and personnel in general can be found in the following researches: Šarotar Žižek (2012), the connection with subjective well-being (Richard et al., 2009), the impact of strategy and organizational climate (Milfelner, 2008), the impact of innovative approaches (Peljko et al., 2017), the connection with the motor skills of soldiers (Tušak et al., 2008) and Lahovnik (2008), which connects it with social responsibility and the transition between different systems (Jurše and Mulej, 2011; Makovec Brenčič and Hrastelj, 2003; Tidd, Besant & Pavitt, 2001). However, some also show a connection with technological changes (Pušnik, 2008) and represent the development orientation of companies (Pompe and Bilderbeek, 2005) and even predicted the possibility of bankruptcy in selected organizations. However, when we compare the facts with our research, which went a step further and studied the individual within this organization, we find out where it is necessary to direct the most activities (satisfaction, stress management and physical activity) for it to be the highest in the individual and, consequently, in the organization.

The success of organizations and individuals within these must also be placed in a broader

context, because in addition to internal motivation (Kharub et al., 2023), it is also determined by many external factors (states of war in the vicinity, access to necessary materials, the number and strength of competitors, purchasing power and ambitions and the needs of the population, the health situation, exchange rates, customs and other regulations, sanctions at the national and international levels, prices of energy products, raw materials, equipment and personnel, the strength and demands of trade unions, the situation on the labour market in the domestic and other countries, etc.).

The extent to which these factors affect is particularly evident in times of economic crises (e.g. the economic crisis that began in 2009) or special epidemiological situations in society, such as the time of the coronavirus in 2020-2022. Later, without respite, this impact continued with the state of war in Ukraine, Gaza and elsewhere, and drastically affected the performance of organizations through prices and the availability of energy products and other resources. Nor should we forget the influx of labour, which after 2016 was marked by the mass migration of migrants and continued during the war in Ukraine.

Some factors affect some organizations but not others, or may even be encouraging, such as the medical device industry and the food industry during the coronavirus pandemic. Certainly, organizations can overcome all of this more easily if they are internally solid and their employees actively approach both life and work, are satisfied and solve situations that come their way with an active approach.

7.3. Practical applications of the results

Based on the results of the research and many years of practical experience in the field of HRM, we would advise one of three programs to improve performance in the workplace, which are compiled according to the results of regression analysis and designed models with four, five and six predictive variables.

(1) For **smaller organisations** that have not yet undertaken various trainings in depth or do not systematically take care of their employees in the context of workplace health promotion, but want a programme that would be short and would contribute to the success of their employees, we suggest training according to the first model with four different parameters (job satisfaction, life satisfaction, sedentary, stress management). This program is characterized by the fact that it is not demanding either in terms of time or money. For this reason, it is recommended for everyone in the organization.

(2) If the employer is aware that his employees are the greatest asset, but as is often shown in practice, personnel managers are **limited in time** (it is difficult to exclude the employee from the work process), **and financially** a model with five variables is recommended. In this case, we recommend content that improves job satisfaction, life satisfaction, sedentary, stress management, and supports physical activity such as transportation to or from work.

(3) However, when we are talking about **employees who are particularly burdened, have demanding work tasks** and responsible jobs, then care for employees is necessary in a broader and, of course, systematic approach. This is especially true when it is important for the success and presentation of the organization in the market what kind of people are the so-called "faces of the organization". Typically, these are executives or employees who meet with customers (daily) and the success of your business depends heavily on them. This group includes service activities; The modern trend is that today almost every activity (of a higher price range) on the market is at least a little bit of consulting or service. In these cases, according to the results of the research, a model with six variables is recommended, as it statistically predicts the performance of employees the most strongly (job satisfaction, life satisfaction, sedentary, stress management, physical activity and preventive health care).

Some general guidelines for designing the program according to the predictive variable model with the aim of improving performance in the workplace. We would like to point out that this is the basis for design and that in order to implement it in a real environment, it is still necessary to adapt or individualize it to the needs and possibilities of the organization and the wishes and needs of employees.

(1) **Life satisfaction** – although we are aware that employers have limited opportunities to influence the private lives of their employees, when this influence goes in a positive direction, we are usually not so concerned. We suggest asking employees what they want, as Mishelle Howking (2016) from Google said at the Global Wellness Summit in Kitzbühel, *what would make their lives full*. We can also look at whether we can somehow improve the conditions of employees, make it easier for them to get to work, for example, by transferring them to another business unit closer to them. We can also ask employees what things are important to them and then try to give them support in the areas that are highlighted. A bright future in this context can be attributed to all content that penetrates the market and supports so-called "flourishing" (Compton and Hoffman, 2019; Kosec, 2024).

(2) **Job satisfaction** – Among the many studies on job satisfaction, one stood out in a particular way, saying, "Don't ask your employees about job satisfaction and then do nothing. By doing so, you make the satisfaction worse!" You can contribute to job satisfaction by teaching your managers to encourage people to address them, to encourage each other as well, to give them feedback on their performance as much as possible in real time (respondents also highlighted the most (lack of) access to information as a condition for success), provide them with the necessary resources so that they can do their job well, that they have access to information and opportunities to be offered the opportunity to show their skills, talents and interests. It is also important to know the values of employees, as this way you can address them in an important way (Kosec, 2022).

(3) **Sedentary** lifestyle – the right thing to do here is certainly learning how to sit properly and place work equipment appropriately, but when we talked about workplace ergonomics decades ago, we were striving to make it easier for people to work and to have everything "at hand". Today, we find that long working hours of sitting and forced postures have an extremely negative impact on human well-being and health, which is why we are distancing work equipment. The printer is just in the hallway for the whole department together, as well as the trash can (for waste separation, of course). In some work environments, they can go a step further, and place a stapler, punch and similar office utensils next to the printer. Thus, each employee will have to get up several times a day and take a few steps to work utensils. Companies that have already implemented this have found that it also has a positive effect on employee relationships, as they see each other more often, exchange a word and help each other. It is also recommended that meetings be spread out as evenly as possible throughout the day, not just in the morning, as many are used to. This keeps the momentum going throughout the day.

(4) **Stress** – it is important to first understand what stress is and why our body reacts in a certain way in a stressful situation. Therefore, it would be advisable to prepare education on the impact of stress on humans, continue to master stress management techniques, prepare

homework for participants so that they can practice the content at home. It is also recommended that a support group for mutual exchange of experience, led by a qualified therapist, be maintained after the completion of the training.

(5) **Physical Activity – transport**. Physical activity that an individual puts into transport to and from work is repeatedly desirable. In the first part of this paper, we found out that physical activity is healthy for humans, we also know that cycling or walking can avoid crowds and stress that it can cause us, reduce transport costs (fuel, bus tickets, etc.), and protect the environment. What can the employer do here to promote this: enable safe storage of bicycles during work, arrange adequate toilet facilities for refreshment, encourage cycling with group cycling trips, subsidize registration fees for cycling competitions. In addition, it is an interesting fact that an individual who rides a bicycle to work is usually active during and after work, which has a multifaceted positive effect on the health of the employee in question.

(6) **Problems** – people who do not have health problems can (more successfully) do their work. Therefore, it is imperative to take care of prevention. This is possible in several ways. Measuring sick leave is a basic indicator of how and which preventive care for employees is appropriate. It is necessary to consider the age of employees, gender and their already performed activities to maintain health. We must be aware that today people are entering the labour market older than they were a generation before us, they have been in the workplace longer and older people will retire. For this reason, concern for the health of employees is essential. It is worth mentioning here several projects of the European Social Fund, which promote care for the health, well-being and competence of employees. However, it is important for organizations to continue this practice even after projects are completed.

Organizations that want to be successful in the long term are important to segment these activities into HR management strategies through systematically prepared areas (Kosec, 2024):

a. employee development planning,
b. recruitment, selection and recruitment,
c. motivating and rewarding,
d. evaluation of work and results,
e. teamwork and creativity,
f. intergenerational cooperation,
g. mutual relations,
h. health and safety,
i. corporate wellness and
j. employee engagement and others.

Given the low unemployment rate in recent years and the values of new generations that put their own well-being and health at the forefront, it will be imperative for organizations to focus on selected content. On the one hand, they should be carried out systematically and, on the other, adapt to the individuality of time and the state of the employees. Where this is not the case, they will have to offer higher salaries than others, or they will be left with staff who did not get the opportunity in more competitive organizations.

Table 27

General distribution of the content of human resources activities by month

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Prepare Plans Support New Year's Vows	Maintain Working Pace	Deadline to start projects you want to complete by summer Invite participants	Maintenance Physical Activity	Conservation Concentration	Encourage to Successful Completing projects	HOLIDAY	Redeem creativity and Work motivation	Expand Projects	Maintain High Work Zeal	Evaluation
	Get help for efficiency		Strengthen social contacts Take care of identification wit he company	Design the work In a relaxed Atmosphere				Encourage cooperation		Findings
Positivity Focus on your colleagues	Motivate Encourage				Build trust among colleagues		Start with New project Introdu ction of changes	Support Innovations	Manage Team Dynamics Summer Talks	Planning
								Challenge		Finishing Year
										Bonuses and rewards

It is also valuable to consider, at least broadly, when it is most effective to introduce specific content. Table 27 provides an example of a calendar outlining general activities recommended for organizations during particular times of the year.

Since every organization is unique, with its own characteristics and needs, it is essential to take this into account when planning activities. The calendar serves as inspiration and a foundation for tailoring an approach that aligns with your organization’s goals.

For HR managers and organizational leaders responsible for planning content, this calendar addresses some of the most common organizational needs across different periods. We also encourage you to actively involve your colleagues in designing and implementing the calendar to ensure alignment with organizational priorities and foster collaboration.

January

The start of the year often inspires people to commit to healthier lifestyles. Organizations can play a key role in supporting and enabling these decisions. Encourage your colleagues in their personal goals but avoid framing the entire organization's focus around weight loss or similar objectives.

Statistics suggest that the third Monday in January is the most depressing day of the year, often called "Blue Monday." Plan something cheerful, engaging, or energizing to uplift spirits and foster a positive environment.

February

As winter drags on, many people feel fatigued and burdened by the cold. Maintain a steady work pace and offer support to boost efficiency. Motivate and encourage your colleagues to keep their energy and focus.

March

This is an ideal time to kick off projects you aim to complete before the summer. Starting new initiatives often invigorates the workplace atmosphere. Involve your colleagues in the planning and execution to foster engagement and teamwork.

April

The effects of winter may still linger, particularly on energy levels and physical well-being. Encourage fitness initiatives as summer approaches. Strengthen social connections to ensure smooth business transitions during the upcoming holiday season. As spring awakens, so do your employees—allow them opportunities to channel this renewed energy into the workplace.

May
The call of nature grows stronger as May unfolds, and maintaining concentration at work can be challenging. Support this shift by creating a more relaxed, nature-inspired work environment. Bring some springtime vitality into the workplace to refresh the collective spirit.

June

Focus on wrapping up projects, as those left unfinished in June often get postponed until September. Foster trust and teamwork among colleagues to ensure a smooth workflow during the upcoming summer breaks.

July/August – Holidays

September

Harness the creativity and enthusiasm of colleagues returning from vacation. This is the perfect month to start new projects or implement organizational changes. Leverage the fresh energy to set the tone for the rest of the year.

October

October is typically a highly productive month. Build on ongoing projects and encourage collaboration. Support innovative ideas and be open to challenges that can drive progress.

November

Sustain the momentum to successfully achieve your goals and complete outstanding projects. Manage team dynamics effectively and begin preparing for the following year through strategic planning and annual reviews.

December

Dedicate time to evaluate the year and document key learnings. Use these insights to begin planning for the next year. In the latter half of the month, focus on showing gratitude—acknowledge your employees' and business partners' contributions and celebrate the year’s achievements.

Once you’ve followed this approach for a year, you’ll gain insights into what worked well and where adjustments can improve the placement of content for the following year.

7.4 Study strengths

Data were collected in organisations operating in various fields: accounting, banking, surveying services, education, tourism, trade, trade unions, the service sector, the public sector, finance and recruitment agencies. This gave us a broader view of how Slovenian sedentary employees work.

In capturing the data and selecting the organisations we asked to work with, we tried to capture data that had demographic parameters such as gender and age as equally represented as possible. We were also careful to recruit individuals from all levels of the org chart (from directors to operational staff), with diverse levels of education, and from organizations of different sizes. Getting the highest on the org chart was especially difficult because there are few of them (each organization has only one director) and they are also extremely busy in terms of time. Data were collected in almost all regions of Slovenia (10 out of 12).

Independent variables have been selected in such a way that they can be implemented in the widest range of organizations with minimal resources. This is especially true for organizations where they are (systematically) dealing with caring for their employees for the first time.

Various practical solutions are presented for organizations of different sizes and levels of employee care implementation. These solutions can be quickly applied in practice, ranging from content tailored to specific organizational sizes to time-specific interventions (e.g., monthly programs).

7.5 Study limitations

The limitations were enormous at the time of design and at the time of data collection. These limitations have been exacerbated in the analysis of the data and the identification of statistically significant correlations and, of course, further in the concluding findings. Based on this, a huge number of insights have emerged for future research. Given the high topicality of the global study of performance in the workplace and related factors, this type of research was planned and carried out in Slovenia as well.

Both organizations and employees independently and voluntarily decided to approach the research. Given that we received high self-assessments of performance at work, we assume that organizations and individuals who feel strong in this area and work differently in these areas have decided to approach such research. The main limitation was the high self-assessed workplace performance score (4.31/5), which may introduce response bias.

We have researched employees in sedentary positions, which is one of the main characteristics of jobs in modern society (development of new technologies). However, we faced many challenges in planning, which is in a way a feature of every pioneering operation. As we state, one of the main findings is that employees at the current level of organizational culture do not like to participate, i.e. in the analysis of the results, it turned out that those who are already fundamentally competent, committed employees participated and were evaluated as such. As a result, we got very high-performance scores, which further affected the overall statistical processing and the results. Of course, there is the question of the decision for the evaluation itself, which is also related to further restrictions on the research. At this level, it was not possible to derive any other assessment option (360° method, measuring employee productivity, etc.); Because even among the managerial staff, it was possible to detect a certain level of reservation about conducting the research in their organization or department. So, we really had to be content with the fact that they (at all) participated in the research.

The fact is that the limitation of the survey is a small sample, especially for such many variables. Although we reached out to 81 organizations, less than a third responded, which made it very difficult for us to collect data. It was extremely difficult to get employees to collaborate, because in many organizations the climate is not favorable to measuring employee performance. Among them, there is a fear that the collected data will be used against them either in the sense of (non)payment or an increase in the volume of work.

We decided to focus on sedentary jobs because of the link between a sedentary job and a higher level of education. However, we know from practice that individuals who have been

in the educational process for a longer period tend to master it more and want to maintain it even after completing formal studies. Since our goal was to create a model for training, we wanted to include in the analysis the individuals who will also participate in these trainings.

It is also worth mentioning that the survey was conducted in the winter. If it had been in the summer, the physical activity data would probably have been higher, but this should not be taken as a stronger limitation, as we also covered physical performance data, to which the time of year is not so important.

Drug treatments were also limited, which can affect variables. Regarding the limitations for the hydration analysis (high fever, drug treatment with drugs that have a diuretic effect), we eliminated one who indicated a high temperature in the workplace and two who indicated medication (first person: Coupet, Premcssu; second person: Byol, Prenevel, Pradaxa). However, in the analysis of well-being and satisfaction, we excluded an individual who indicated that he or she was taking Apaurin. Others who cited medications (Claritine, Aspirin, Nalgesin, Medrol, Relval, Nexium, Sibbila aerius, Etrirox, Zoming, anti-allergics) were treated as usual.

The extensive length of the questionnaire was identified as a limitation of the survey. It was observed that as they complied with this, the respondents' concentration dropped, they became uncomfortable or looked at the clock. It was noted that in the GPAQ questionnaire, they found that there were repeated sets of questions and if they answered NO on the first one, they could skip the next four questions. We also had two questionnaires that were not fully resolved, but according to Gelman (2006), we can argue that the survey is still adequate.

7.6 Implications for further researches

It is worth emphasizing that one of the main values of our work is that our research has opened a huge number of questions and research challenges. The focus is on the possibility of further research in relation to physical activity and sedentary posture, as well as performance in the workplace. It would make sense to examine the effects of planned and guided physical activity during working hours. The transformation of the workplace is also being implemented, which in the process of work requires several times to get up and walk (detachment of work aids such as a printer, a trash can, a special area for phone calls). We would also advise the introduction of a wellness specialist, especially in terms of physical activities and ensuring satisfaction. It is likely that this role could be played by kinesiologists as a more recently defined profession. Extensive research could provide answers as to whether work performance has increased so much that it would make sense to think about systematizing the workplace within companies.

First, it would make sense to include objective indicators of workplace performance in the survey, as the dependent variable was based on a subjective self-assessment of workplace performance. It would make sense to add objective indicators, e.g. absenteeism (as we detected that respondent also had various health problems). Thus, an individual can assess that he has successfully done his job, but from an organizational point of view, in the case of a sick leave, the work is not done, and the objectification of the performance would probably show a different result.

Further, as noted in the previous chapters, the possibilities for other further research are many; Most of them stem from the limitations of this research related to the difficulties in collecting data and insights related to organizational culture in the organizations we measured. In further research, even more attention should be paid to preparing employees to experience participation in the survey as something that can also have positive effects on their well-being and performance in the workplace.

Further research would also make sense in the direction of the tipping point between sedentary and job performance. Further research could answer the questions of how many hours of sitting (working) raises work performance and when it begins to deteriorate. These insights could be incorporated into instructions to employers on (active) breaks and, if necessary, reduced working hours. From practice, we know examples of employers who reduced their working hours from an eight-hour to a seven-hour or six-hour day, and the employees performed the same amount of work tasks during that time, but in the long run they got tired of the "rush" and some later switched back to an eight-hour working day. It would be appropriate to substantiate these practical findings scientifically in further

research. There is also a lot of scope for determining the impact of specific physical activities on performance given the differences between the public and private sectors.

7.7 Contribution to science

A fundamental part of the original contribution to science is the fact that, for the first time in history, a multidisciplinary study has been designed and carried out to determine the relationship between work performance and certain factors of the lifestyle of employees in sedentary jobs in Slovenia. Furthermore, the original contribution to science of this scientific monography is represented by the newly designed three models (with four, five and six predictive variables) of predicting performance in the workplace. So far, only research has been done on each trailer separately. We would especially like to emphasize that the sample used was only *employees in sedentary jobs in Slovenia*.

A specific contribution to science is also the way of incorporating various factors (kinesiological, psychological and medical) into determining the performance of employees. We captured an optimal set of physical activity and performance data in our conditions using a variety of measuring devices (questionnaires, calculations of maximal oxygen consumption estimates and measurement of grip capacity). These data were then individually analysed, where the dynamometry and the assessment of maximum oxygen consumption were also compared with the criterion of self-assessment of workplace performance also according to gender.

Although we did not identify statistically significant correlations between all the variables considered, we nevertheless raised several important questions in this area. Our results suggest the need for further research and research work in this direction, which could contribute to a more comprehensive understanding of the interactions between physical activity, performance and self-assessment of performance in the workplace.

A key scientific contribution to the field of kinesiology is seen in the definition of the physical activity required by employees to achieve success in the workplace. The empirical results of the regression analysis show that in women, the most important characteristic predictor of success in the workplace is joint physical activity. Interestingly, however, the results on the male population of employees did not confirm this. There, physical activity did not play a significant role. Therefore, a possible interpretation is offered that the existing physical activity of men is already sufficient to meet the basic condition of being successful in sedentary jobs, while in the case of women, who are basically less physically active, it is precisely this total physical activity that may be a factor that predicts performance in a sedentary job. Those who are more physically active through recreation, transportation, and work are also more successful. These results need to be understood in the context of understanding sedentary workplaces, where physical activity of employees is of course less important than in jobs where greater physical performance and readiness

are required (there we might find a statistically significant predictive value of physical activity also in men). However, at this point a new question arises as to the definition of indispensable physical activity of employees in sedentary positions. However, we should not neglect that in our regression models, job and life satisfaction for both men and women was an important predictor of success in sedentary jobs.

8. Conclusion

The research successfully achieved its basic purpose – to examine the relationship between an individual's work performance and their lifestyle habits, such as physical activity, physical performance, hydration, satisfaction, ability to manage stress and well-being at work. A key goal was to create a comprehensive model of employee performance training and forecasting, focusing on the challenges of sedentary jobs. The analysis of the results showed that job and life satisfaction are key predictors of the work performance of employees in sedentary jobs, and these factors are also statistically significant.

The original scientific contribution of the research lies in its interdisciplinary nature – for the first time, a study was conducted in Slovenia that links work performance with selected factors of the lifestyle of employees in sedentary jobs. The research captured an optimal set of physical activity and performance data using a variety of measuring devices that are adapted for potential practical use in work environments. At the same time, psychological parameters such as (satisfaction, well-being and perception of stress) are also measured.

The study highlighted the complexity and challenges of conducting similar research in the Slovenian workplace environment. Managers and employees are often reluctant or even apprehensive about activities that could simultaneously contribute to science and improve working conditions and increase performance. The results show that such surveys are mostly conducted by the most engaged employees, who already rate themselves highly as successful and satisfied. The key finding is the need for a change in organizational culture that would encourage employees to explore and find solutions for greater performance in the workplace.

Examining commuting habits provides valuable insights into the role of physical activity in sedentary work environments. It is believed that it is more important for sedentary employees to get to and from work on foot or by bike. Finally, it is also important to consider the sustainability aspects of commuting. Sustainability involves caring for the environment and one's own body, which keeps employees healthy and contributes to long-term performance. Getting to and from work on foot or by bike links physical activity and sustainability and indicates a responsible lifestyle (to one's own health, work and environment).

In the post-COVID era, with the rise of remote work—often synonymous with sedentary jobs—this topic has become even more relevant. For implementation in the real environment, it is necessary to individualize programs, which should include both the needs and capabilities of the organization and the needs and desires of employees. In the

cross-section of all three entities (research, employer, employee), it is possible to prepare appropriate and high-quality programmes coordinated with the selected organisation at the level of the conclusions of our research.

9. Glossary

Absenteeism - The frequency of an employee's absence from work due to illness, stress, or other factors impacting performance. Example - High absenteeism rates may signal workplace dissatisfaction or health issues.
Adjusted R^2 - A statistical measure accounting for the number of variables used to prevent model overfitting.
Challenge - A demanding task or situation requiring adaptation and effort to achieve success.
Cognitive Functions - Thought processes such as memory, attention, and decision-making that influence work performance.

Communication - The exchange of information and ideas between individuals or groups.
Corporate Wellness - Programs designed to enhance employee health and well-being within an organization.
Correlation - A statistical measure indicating the strength and direction of a relationship between two variables.
Dehydration - A condition characterized by insufficient fluid levels in the body, reducing physical and cognitive abilities.
Distress - Negative stress that impairs performance and causes psychological or health issues.
Dynamometry - A method for measuring muscle strength through grip capacity, commonly used in physical performance assessments.
Efficiency - Achieving desired results using minimal resources.
Ergonomics - The practice of designing work environments to optimize productivity and reduce injury risks.
Eustress - Positive stress that enhances productivity and creativity. Example - Successfully preparing for a presentation may induce eustress.
Feedback - Information or evaluations provided to improve or validate performance.
Flourishing - A state where an individual realizes their full potential and experiences optimal personal and professional growth through a balance of internal abilities and external opportunities.
Flow - A mental state where an individual is deeply immersed in a task, often losing track of time.
Forecasting Models - Statistical tools used to predict work performance based on various factors.

Happiness - A subjective state of contentment and emotional fulfillment.
Health - A holistic state encompassing physical, mental, and social well-being.
Human Resource Management (HRM) - The strategic approach to managing employees to achieve organizational goals.
Human Resources Function - Organizational responsibility for recruiting, training, and developing employees.
Hydration - The balance of water intake and loss, crucial for maintaining physical and cognitive performance.
Hydration Status - The current balance of water intake relative to the body's needs.

Hygge - refers to a cultural concept cantered around creating a cozy, warm atmosphere and enjoying simple pleasures, often in the company of loved ones.
Interdisciplinarity - The integration of knowledge and methods from multiple disciplines to address complex problems.
Job Performance - The ability to achieve set goals and expected results in the workplace.
Job Satisfaction - A positive evaluation of one’s work environment and job experiences.
Kaizen - A Japanese philosophy focused on continuous improvement and process optimization.
Leadership - The process of guiding and motivating individuals or groups to achieve objectives.
Life Satisfaction - An individual's subjective evaluation of their overall life quality.
Locus of Control - A psychological concept describing whether an individual attributes life events to internal or external factors.
Management - The process of planning, organizing, leading, and controlling to achieve objectives.
Mobbing - Psychological harassment or bullying in the workplace that negatively impacts individuals and organizational culture.
Motivation to Work - Internal or external drivers that inspire individuals to achieve work goals.
Organizational Climate - Employees' collective perception of workplace culture and conditions.
Organizational Culture - Shared values, norms, and behaviors considered appropriate within an organization.
Organizational Performance - The degree to which an organization meets its goals and delivers value.

Physical Activation - Engaging in increased levels of physical activity to enhance bodily and mental function.
Physical Activity - Any movement contributing to improved physical and mental health, including work, transport, or recreational activities.
Physical Performance - The body's ability to complete physical tasks, often measured by indicators such as VO_2max and grip strength.
Physically Inactive Employees - Workers who do not meet recommended physical activity guidelines.
Psychological Resilience - The capacity to adapt to stress and recover from adversity.
R^2 (Coefficient of Determination) - The proportion of variance in a dependent variable explained by independent variables in a model.
Regression Analysis - A statistical method used to explore relationships between dependent and independent variables.
Relationship - Interpersonal connections that influence collaboration and the work environment.
Satisfaction - A state where input efforts yield expected or favorable outcomes.
Sedentary - Extended periods of sitting with minimal physical activity, contributing to health risks.
Sedentary Behaviour - Actions involving prolonged sitting and low energy expenditure.
Self-confidence - Belief in one's ability to successfully perform tasks.
State of Dehydration - A condition where inadequate fluid levels impair physical and mental abilities.
Stress - The body's response to external or internal pressures; can be positive (eustress) or negative (distress).
Stressors - Factors such as workload or conflicts that trigger stress.
Subjective Satisfaction - An individual's personal assessment of their satisfaction, independent of external conditions.
Subjective Well-being - A blend of life satisfaction and positive emotional states.
Training - The process of learning or improving skills for increased job efficiency.
Turnover - The rate at which employees leave and are replaced within an organization.
Values - Core beliefs guiding behavior in individuals or organizations.
VO_2max - The maximum rate of oxygen consumption during physical exertion.
Well-being - An individual's overall assessment of physical, emotional, and psychological health.
Wellness - A holistic approach to health, encompassing physical, mental, and social well-being.

Work Environment - The physical, psychological, and social characteristics of the setting where work is performed.

Work Productivity - The quantity and quality of work an employee performs within a given time.

Working Conditions - Environmental, social, and organizational factors affecting an individual's work experience.

10. Literature

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11. Addition

Study questionnaire

Dear

Thank you for choosing to participate in the research on the impact of movement, stress management, hydration, satisfaction and well-being on workplace performance. There are a few questions in front of you, which please answer at your own discretion. The questionnaire is anonymous in nature.

Fist **clench** result (best score is considered, please surround it)

Dominant hand tested: Left / Right Gender: Male Female

_____

_____

_____

For the following questions, please read the questions carefully and answer on a scale of 1 to 5, where 1 represents the value that this does not apply to you and 5 represents that it does not apply to you completely.

CLAIM÷	1	2	3	4	5
DO YOU FIND YOUR JOB CHALLENGING?					
DO YOU HAVE THE OPPORTUNITY TO GAIN NEW SKILLS AND SKILLS THROUGH WORK?					
DO YOU HAVE TASKS AT WORK WHERE YOU CAN SHOW ALL YOUR KNOWLEDGE?					
WHAT IS YOUR ACCESS TO INFORMATION IN YOUR WORKPLACE?					
WHAT IS THE STATE OF YOUR WORK ORGANIZATION?					
WHAT VALUE DO YOU PLACE ON THE LEADERSHIP OF YOUR WORK ORGANIZATION?					
WHAT DO YOU THINK ARE THE GOALS OF THE MANAGEMENT?					
DO YOU HAVE ACCESS TO SPECIFIC INFORMATION ABOUT YOUR ORGANIZATION'S PERFORMANCE?					
GET PRECISE INFORMATION ON WHAT THINGS YOU'RE DOING WELL?					
GET ACCURATE INFORMATION ABOUT THINGS YOU CAN IMPROVE?					
DO YOU GET ANY TIPS ON HOW TO SOLVE THE PROBLEMS					

THAT HAVE ARISEN?	
DO YOU HAVE TIME TO DO THE NECESSARY ADMINISTRATIVE WORK?	
DO YOU HAVE ENOUGH TIME TO DO EVERYTHING THAT THE JOB REQUIRES OF YOU?	
DO YOU HAVE THE ABILITY TO HELP IF YOU NEED IT?	

Please read the statements carefully and answer on a scale of 1 to 5, where 1 represents the value that this does not apply to you and 5 represents that this does not apply to you completely.

CLAIM:	**1**	**2**	**3**	**4**	**5**
I AM USED TO MAINTAINING HIGH STANDARDS OF WORK THROUGHOUT THE WORK PROCESS.					
I'M ABLE TO PERFORM MY DUTIES WITHOUT MUCH SUPERVISION.					
I'M PASSIONATE ABOUT MY WORK.					
I KNOW THAT I CAN ALSO MULTITASK, IN ORDER TO ACHIEVE THE GOAL OF THE ORGANIZATION.					
I USUALLY FINISH MY WORK BY THE AGREED DEADLINE.					
MY COLLEAGUES SEE ME AS A SUCCESS IN OUR ORGANIZATION.					
I AM ABLE TO USE ALL MY KNOWLEDGE FOR SUCCESSFUL TEAMWORK.					
I AM ABLE TO ACCEPT CHANGES IN MY WORKPLACE WHENEVER THE SITUATION REQUIRES ME TO DO SO.					
I AM ABLE TO GUIDE MY COLLEAGUES THROUGH THE PHASES OF CHANGE.					
I BELIEVE THAT A COMMON UNDERSTANDING OF THE SITUATION OFFERS OPPORTUNITIES FOR GOOD RESULTS.					
SOMETIMES I LOST MY TEMPER WHEN MY COLLEAGUES CRITICIZED ME. (R)					
I'M VERY FLEXIBLE IN THE WORKPLACE.					
I USUALLY DO WELL WHEN WE HAVE SOME CHANGES IN THE ORGANIZATION.					
I HELP MY CO-WORKERS IF THEY ASK ME IF THEY NEED IT.					
I'M HAPPY IF I GET THE EXTRA RESPONSIBILITY.					
I AM COMPASSIONATE AND UNDERSTANDING TO COLLEAGUES WHO NEED HELP.					
I AM ACTIVE WHEN WE DISCUSS WORK CHALLENGES IN THE GROUP.					
I APPRECIATE MY CO-WORKERS FOR THEIR GOOD WORK.					

IT IS A PLEASURE FOR ME TO HELP OTHERS IN THE ORGANIZATION.	
I HAVE A HABIT OF SHARING MY KNOWLEDGE AND IDEAS AMONG MY COLLEAGUES.	
I TRY TO COORDINATE MY CO-WORKERS AND WORK.	
SOMETIMES I INVITE COLLEAGUES TO SEE THE CONTENT FROM A DIFFERENT ANGLE.	
I'M ALWAYS TALKING TO MY COLLEAGUES WHEN I'M LOOKING FOR SOLUTIONS AND MAKING DECISIONS.	

For the following questions, please read the questions carefully and answer on a scale ranging from detecting it much less than usual to much more than usual.

Have you been lately...	**Much less than usual**	**Same as usual**	**More than Usually**	**Much more than usual**
1. … Were you able to concentrate on what you were doing?	3	2	1	0
2. … Sleeping badly because of worry?	0	1	2	3
3. … Feel useful in your work?	3	2	1	0
4. … Do you feel capable of making decisions?	3	2	1	0
5. … Did you feel like you were under pressure?	0	1	2	3
6. … Did you feel that you could not overcome your problems?	0	1	2	3
7. … Have you been able to enjoy your daily activities?	3	2	1	0
8. ... Were you able to face your problems?	3	2	1	0
9. … Feeling miserable and depressed?	0	1	2	3
10. … Lost confidence in yourself and your abilities?	0	1	2	3
11. … Thinking of yourself as a useless/redundant person?	0	1	2	3
12. … Feeling happy given all the circumstances?	3	2	1	0

For the following questions, please read carefully the statements you answer on a scale of 1 to 7, where 1 represents the value that this does not apply to you and 7 represents that this does not apply to you completely.

CLAIM	1	2	3	4	5	6	7
IN MOST WAYS, MY LIFE IS CLOSE TO IDEAL.							
MY LIVING CONDITIONS (CONDITIONS) ARE EXCELLENT.							
I'M HAPPY WITH MY LIFE.							
SO FAR, I'VE ACHIEVED (GOT) THE IMPORTANT THINGS I WANT IN LIFE.							
IF I LIVED AGAIN, I WOULD WANT TO CHANGE ALMOST NOTHING.							

We are interested in physical activity (movement/sports activity) that is part of your everyday life. We will ask you about the time you spent physically active in **a typical day or week.** Please if you can answer every question, even if you don't see yourself as physically active. Think about activities that are part of your chores at home, in the garden, part of your recreation or sports exercise (e.g. Nordic walking, cycling, bocce). The questions relate to the performance of this type of activity, the number of days per week you do it and the duration of the day.

High-intensity physical activity refers to activities that require greater physical exertion, that make you sweat and your heart rate quicken, and that make your breathing much heavier than normal (e.g. lifting heavy loads, bathing in the garden, running fast, cycling intensively). Just think of such physical activity that you have been doing for at least 10 minutes continuously.

Moderate-intensity physical activity refers to activities that require moderate effort, during which you feel heat throughout your body and breathe slightly heavier than normal (e.g. that you have carried lighter loads, cycled at a moderate pace, run at a moderate pace, exercised moderately, etc...). Do not include walking in this activity. Just think of such physical activity that you have been doing for at least 10 minutes continuously.

D1 Physical activity at work or daily tasks

1. Did your work or tasks require high-intensity physical activity (e.g. lifting heavy loads, bathing or building, etc.) for at least 10 minutes continuously? Circle the correct answer.

Yes. No. (Continue to question 5.)

Q2 2. How many days in a typical week did you do high-intensity physical activity as part of your job?

_____

Q3 3. How much time (minutes) did you do high-intensity physical activity in a typical day?

_____

Q4 4. Name which work or high-intensity physical activity lasted the longest or that you performed during a typical week (e.g. chopping firewood...).

_____

Q5 5. Whether your work required moderately intense physical activity (e.g. carrying lighter loads, performing light tasks in the garden, in the apartment) for at least 10 minutes continuously. Do not include walking in this activity? Circle the correct answer.
Yes. No (continue with question No. 9).

Q6 6. How many days in a typical week did you do moderate-intensity physical activity as part of your job?

_____

Q7 7. How much time (minutes) you did moderately vigorous physical activity in a typical day

_____

Q8 8. Indicate the longest-lasting or most frequent moderate-intensity physical activity you did during a typical week (e.g. gardening).

_____

Q9 D2 Active Transport
9. Do you walk or bike for at least 10 minutes continuously to get to the desired place (shop, post office, bank, church)?
Yes. No (continue with question 13.)

Q10 10. How many days in a typical week have you walked or bicycled for the purpose of transportation for at least 10 minutes continuously?

_____

Q11 11. How much time (minutes) have you devoted to walking or cycling for the purpose of transportation on a typical day?

_____

Q12 12. Indicate what type of active transport you used and where (e.g. to the store) you went most often during a normal week (e.g. walking...).

_____

Q13 D3 Recreational activities (Physical and sporting activities)
13. Have you practiced any form of high-intensity physical activity (sport, exercise, recreational activity (e.g. fast running, football, tennis, mountain biking, fitness)) that causes your heart to beat faster and makes it much harder for you to breathe for at least 10 minutes continuously? Circle the correct answer.
Yes. No (Continue with question 17)

Q14 14. How many days in a typical week did you engage in high-intensity physical activity as part of your recreation (physical/sporting activities, e.g. brisk jogging)?

_____

Q15 15. How much time (minutes) did you do high-intensity physical activity in a typical day?

_____

Q16 16. Indicate the longest or most frequent high-intensity physical activity that you performed for the purpose of recreational physical/sports activity in a typical week (e.g. tennis, etc.)

_____

Q17 17. During a typical week, did you engage in any form of moderate-intensity physical activity (sport, exercise, recreational activity that causes a slightly elevated heart rate and breathing (e.g. brisk walking, cycling, swimming, volleyball) for at least 10 minutes continuously? Circle the correct answer.
Yes. No (continue with question 21).

Q18 18. How many days in a typical week did you do moderately intense physical activity as a recreational or physical/sporting activity?

_____

Q19 19. How much time (minutes) did you do moderately intense physical activity in a typical day?

_____

Q20 20. Indicate the longest or most frequent moderate-intensity physical activity that you performed for the purpose of recreational physical/sports activity in a typical week (e.g. brisk walking).

_____

Q21 Sedentary habits (sitting)
21. How many times (hours) do you sit in a normal day (including all of the above forms of sitting)?

_____

Body height: _____(cm)
Body weight: _____(kg)
Age: _____ years

PAR (pysical activity rating) - Circle the number in front of the statement that best describes your physical activities in the last six months.

_____

0 I avoided walking or exercising (always use the elevator, always ride the car instead of walking)
1 I walk when I feel like it, I usually use the stairs, sometimes I also exercise so much that I get out of breath
2 10-60 min per week of light exercise (recreation)
3 More than an hour a week of light exercise (recreation)
4 A more intense form of exercise (up to 30 min/week)
5 More intense form of exercise (up to 30-60 min/week)
6 A more intense form of exercise (1 to 3 hours/week)
7 More intense form of exercise (more than 3 hours/week)
In the past month:

a) I had health problems. b) I had no health problems.

I'**ve had <u>problem</u>s with (There are several possible answers)** in the past month:

a) upper respiratory tract (cold, cold)
b) lower respiratory tract (bronchitis, pneumonia)
c) gastrointestinal tract (heartburn, diarrhea, vomiting ...)
d) cardiovascular system (e.g. excessive heartbeat)
e) Urinary tract (e.g. inflammation of the bladder)
f) genitals and/or births (e.g. painful menstruation)
g) with the skin (rashes, eczema ...)
h) with the blood system (e.g. anemia)
i) the neurological system (e.g. vertigo)
j) with the immune system (e.g. allergies)
k) at the mental (psychiatric) level (e.g. depression, anxiety attacks)
l) dentition (pain)
m) Eyes (e.g. visual disturbances)
(A) Other : _____

The most common **symptoms** I've felt in the last month are (There are several possible answers):

a) fever

b) Pain

c) diarrhea/vomiting

d) Feeling of heavy breathing/coughing

(A) other:_____

Do you perceive **pain** (where pain is present, mark it with an x)?

BODY PART	CURRENTLY	IN THE LAST MONTH
ANKLE		
KNEE		
HIP		
LUMBAR SPINE (SACRUM)		
CERVICAL SPINE		
SHOULDER		

For the following questions, please read the questions carefully and answer on a scale of 1 to 5, where 1 represents the value that you never feel this way and 5 that you always feel like this.

QUESTIONS	1	2	3	4	5
HAVE YOU EVER FELT REDUCED CONCENTRATION, ATTENTION AND IMPAIRED MEMORY FUNCTIONS DUE TO LACK OF WATER IN THE BODY (DEHUMIDIFICATION) DURING WORK?					
HAVE YOU EVER FELT THIRSTY, DRY MOUTH AT WORK, NOTICED THAT YOU HAVE WORSE SKIN TENSION?					
DOES IT HAPPEN TO YOU THAT YOU FEEL TIRED OR HEADACHED DUE TO DEHYDRATION?					
HAVE YOU EVER NOTICED THAT YOU EXCRETE SMALLER AMOUNTS OF URINE THAN USUAL, THAT THE URINE IS DARKER AND SMELLS MORE INTENSE?					

DO YOU EVER EXPERIENCE CRAMPS, NAUSEA, DIZZINESS DUE TO DEHYDRATION?	
DO YOU EVER EXPERIENCE CONFUSION, FAINTING, VISUAL DISTURBANCES DUE TO DEHYDRATION?	
DOES IT HAPPEN TO YOU THAT YOU DON'T FEEL THIRSTY, EVEN THOUGH YOU KNOW THAT YOU HAVEN'T CONSUMED A LIQUID FOR A LONG TIME?	

For the following questions, please read carefully the statements you answer on a scale of 1 to 5, where 1 represents the value that this does not apply to you and 5 represents that it does not apply to you completely.

CLAIMS:	**1**	**2**	**3**	**4**	**5**
I FEEL ENCOURAGED TO SAY NEW AND BETTER WAYS TO GET THINGS DONE.					
MY WORK GIVES ME A SENSE OF PERSONAL ACCOMPLISHMENT.					
I HAVE THE TOOLS AND RESOURCES TO DO MY JOB WELL.					
I HAVE WELL-DEFINED QUALITY STANDARDS AT WORK.					
THE ORGANIZATION IS GREAT AT HOW IT INFORMS EMPLOYEES ABOUT THINGS THAT AFFECT ALL OF US.					
IF THE CLIENT IS DISSATISFIED, I USUALLY CORRECT WHAT IS NECESSARY AND DO MY BEST TO MAKE THEM HAPPY.					
I UNDERSTAND WHY IT IS IMPORTANT FOR AN ORGANIZATION TO HAVE DIFFERENT PEOPLE IN IT (BY GENDER, AGE, RACE...).					
I CAN SHOW MY SKILLS AND ABILITIES IN MY WORK.					
SUPERIORS ALWAYS FOLLOW THE REQUIRED LEVEL OF QUALITY THEMSELVES.					
HOW SATISFIED ARE YOU WITH THE INFORMATION YOU RECEIVED FROM YOUR SUPERIORS ABOUT THE FUNCTIONING OF YOUR DEPARTMENT?					
HOW SATISFIED ARE YOU WITH YOUR WORK OVERALL?					
HOW SATISFIED ARE YOU WITH THE INFORMATION YOU RECEIVED FROM THE MANAGEMENT ABOUT WHAT IS HAPPENING IN THE ORGANIZATION?					
HOW SATISFIED ARE YOU WITH THE PROSPECTS OF GETTING A BETTER JOB WITHIN THE ORGANIZATION?					

Carefully read the list of stressful situations. Among all of them, tick off those events that represent a threatening, negative event for you. Surround only those stressors that you are exposed to or have been to in the last 12 months and that you can say you experience

as threatening.

STRESSOR			STRESSOR
1.	Strict policy in the company	22.	Unclear work goals
2.	Time pressure	23.	Changing co-workers or team
3.	Boredom	24.	A big responsibility
4.	Weak interpersonal relationships	25.	Changing jobs
5.	Money problems and worries	26.	Austerity measures
6.	Fear of losing your job	27.	Poor working conditions
7.	Lack of free time	28.	Unfavourable working conditions
8.	Altered sleep rhythm	29.	Poor leadership
9	Sleep problems	30.	Problems with children
10.	Biased evaluation of work performance	31.	Problems with your partner
12.	Nadurno delo	32.	Divorce proceedings
13.	Night work or study	33.	Departure of children from home
14.	Dissatisfaction with the financial situation	34.	Disease in the family
15.	Harassment in the workplace	35.	Death in the immediate family
16.	Feeling incompetent for a particular job	36.	Death among friends
17.	Restrictions on rights in the workplace	37.	Illness
18.	Strong working pressure	38.	Health problems
19.	Strong competition and competitiveness	39.	Problems in private life
20.	Busy work schedule	40.	Poor living conditions
21.	Unrealistic expectations and demands	41.	In the coming period, I will have an important stressful event (exams, public appearances, interviews, checks...)
42.	Other:_____		

My post represents (circle the number in front of your chosen answer):

1. Operational work (I work with final products or customers)
2. Head of department (e.g. shift manager)
3. Head of Sector (HRM, Finance, IT, ...)
4. Director of the organization
5. Owner
6. One-person organization (self-employed, business operator...)

Level of education

1. Primary school
2. High School
3. College or College (Uni.)
4. Master's degree, specialization
5. Doctorate

The organization in which I work is one of the following:

1. Micro enterprise (up to 10 employees)
2. Small business (11 to 50 employees)
3. Medium-sized company (from 51 to 250 employees)
4. Large company (more than 250 employees)

Please circle the correct answer. Do you take any medications? NO YES
If you circled yes in the previous answer, write which one?
_____
Please circle the correct answer. Are you exposed to any special working conditions (extreme high/low temperature) at work: YES NO
If you circled yes in the previous answer, write which one?
_____
Is there anything else you would like to add?
_____

Thank you very much for your cooperation.

You have helped us to take better care of our employees.