

ÁGNES SZABÓ<sup>1</sup> – PÉTER JUHÁSZ<sup>2</sup>

## TEREMTHET AZ ÉLETMÓD ORVOSTAN TULAJDONOSI ÉS MUNKAVÁLLALÓI ÉRTÉKET EGYIDŐBEN? LIFESTYLE MEDICINE – CAN YOU CREATE SHAREHOLDER AND EMPLOYEE VALUE AT THE SAME TIME?

*A munkavállalók jól-létével törődni ma már nem csak „kedveskedés”. A vállalatok alapvető üzleti érdeke, hogy a munkavállalók jól-létét figyelembe vegyék, hiszen a jól-létet biztosító programok kiváló lehetőséget kínálnak azon költségek csökkentésére, amelyek a munkavállalók fluktuációjához, hiányzásához és betegen történő munkavégzéséhez kapcsolódnak. Ugyanakkor a legtöbb ilyen program csak a megelőzésre összpontosít. Az bizonyítékokon alapuló életmód orvostani megközelítés azonban hatásos lehet nem csak a betegségek megelőzésében, de azok kezelésében és akár visszafordításában is, hiszen az egészségtelen viselkedési mintákat egészségessel váltja fel úgy, hogy egyidejűleg figyelembe veszi az élet hat területét: az egészséges táplálkozást, a fizikai aktivitást, a stressz kezelést, a függőségek elkerülését, az alvást és emberi kapcsolatokat is. Cikkünkben a nemzetközi szakirodalom áttekintésével ezen munkahelyi programok hatását elemezzük, majd magyarországi életmód orvostani programok résztvevőivel készített interjúk alapján a hazai tapasztalatokat elemezzük. Eredményeink azt mutatják, hogy míg az életmód orvostani programok jelentősen növelhetik a személyes jól-lét érzetet, a pozitív munkahelyi hatások rejtve maradhatnak a résztvevők előtt. Ezek a hatások azonban a közvetett eredményeken keresztül azonosíthatók. Vizsgálatunk alapján az alkalmazottak széles körű bevonása és a vezetés erős elkötelezettsége elengedhetetlen a sikerhez, s e programok mindenképpen értéket teremthetnek mind az alkalmazottak, mind a tulajdonosok számára.*

*Employee well-being is no longer something great to have. In essence, it is a business imperative that every organization needs to consider. Programs, which aim to achieve the well-being of your staff, offer an excellent way to decrease the costs linked to employee turnover, absenteeism and presenteeism. Most workplace well-being programs focus on prevention. Lifestyle medicine is an evidence-based approach to preventing, treating and even reversing diseases by replacing unhealthy behaviours with positive ones considering six areas of our life such as eating healthfully, being physically active, managing stress, avoiding risky substance abuse, adequate sleep and having a robust support system. Our paper analyses*

<sup>1</sup> Habilitált egyetemi docens, Pénzügyi, Számviteli és Gazdasági Jogi Intézet, Budapesti Corvinus Egyetem

<sup>2</sup> Egyetemi adjunktus, Vállalatgazdaságtan Intézet, Budapesti Corvinus Egyetem

*the impact of such workplace programs through a review of the international literature. Based on several interviews with attendees of lifestyle medicine programs in Hungary, we list some real-life examples worth to follow. Our results show that while Lifestyle Medicine programs may offer a considerable upside for personal life, positive work impacts could remain hidden for the participants. Still, those can be identified when focusing on indirect effects. It seems that the wide-range involvement of the employees and the strong commitment of the management is vital for the overall success. Still, these programs can create value for both the employees and the firm.*

## INTRODUCTION

Due to changes in the business environment, the practices that companies traditionally employ to gain a competitive advantage are no longer enough for achieving success. Profit may be paramount, but employee well-being is also a critical component of the “healthy organization” concept. According to the World Health Organization (1998), “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” Healthy people are part of what makes a stable company. Competitiveness requires developing the internal human capital as it is the human that enable organizational systems to operate.

Companies provide value to their employees when they care about their health and well-being; this, in turn, creates both shareholder and societal value. The concept of “employee value” attempts to strike a “balance” between employee satisfaction, job dedication and productivity. In addition to employee compensation, numerous other factors play an essential role in creating value like work-life balance, workplace culture, or vocational training. The employer gives – and gets back. When employers provide value, they are better able to attract and motivate employees (Deshpande, 2019).

An excellent Employee Value Proposition (EVP) strikes a delicate balance between tangible rewards received by employees (such as compensation and benefits), but also intangible rewards (such as exciting and meaningful projects to work on, great company culture, flexible working hours). EVP is a comprehensive offering that companies provide to their employees, which has five main components (TalentLyft, 2018). Those are compensation (salary satisfaction, compensation system satisfaction, raises and promotions, timeliness, fairness, evaluation system), benefits (time off, holidays, insurance, satisfaction with the system, retirement, education, flexibility, family), career (the ability and the chance to progress and develop, stability, training and education, career development, college education, consultation, evaluation and feedback), work environment (recognition, autonomy, personal achievements, work-life balance, challenges, understanding of one’s role and responsibility) and culture (knowledge of firm’s goals and plans, colleagues, leaders and managers, support, collaboration, team spirit, social responsibility, trust).

In 2008, 34 percent of multinational companies worldwide initiated health programs for their employees. This ratio rose to 56 percent in 2014 and to 69 percent in 2016 (Xerox, 2016). The global market for corporate well-being services, valued at \$29.3 billion in 2017, is set to grow at nearly 9 percent a year to \$61.7 billion by 2026, according to a 2018 forecast by Transparency Market Research. Based on the market size of around 57 billion USD in 2019, Grand View Research (2020) even expects a total turnover of 97.4 billion USD by 2027 on the global corporate wellness market.

Research shows that every \$1 spent on workplace health programs garners a return of \$1.40 to \$4.70 over three years (Goetzel et al., 2008). A study by PwC (2014) found that every dollar spent on mental health development brings a return of \$2.30; research by Deloitte (2017) put the average return on investment at \$4.20. Most international research puts the expected return at between \$1 and \$5; however, the methodology of those calculations is sometimes questionable (Szabó-Juhász, 2019). Still, it seems that efforts pay off. Willis Towers Watson's Staying@Work survey in 2015-2016 found a close relationship between efficient health programs, higher worker productivity and better financial results (Stirzaker, 2017).

The majority of workplace-health programs concentrate solely on preventing disease and only in certain areas. However, the concept of lifestyle medicine has emerged recently representing a new and more sophisticated approach. It is an empirical evidence-based method that focuses on reversing diseases in addition to treating them. It puts special emphasis on preventing chronic disease, eschewing pharmaceutical-based remedies in favour of whole-food plant-based nutrition, regular exercise, proper sleep habits, stress management, social relationships, and avoiding harmful addictive substances. Education, practical training and experiences in these six areas are of paramount importance.

We already know the main causes of chronic ailments; if we can eliminate the relevant risk factors, it will be possible to prevent 80 percent of heart disease, strokes and type-2 diabetes, as well as 40 percent of cancer cases (WHO, 2005). A higher number of healthy lifestyle factors bring a proportional decrease in relative mortality risk. Meta-analyses demonstrate that the combination of at least four healthy lifestyle factors can reduce overall mortality risk by 66% (Loef-Walach, 2012). Employers have a clear motivation to help employees maintain and improve their health. Thus, the business sphere – we might call it the “corporate-well-being sphere” – presents significant opportunities for lifestyle medicine.

First, our paper presents the aims and effects of corporate health development programs. Next, we offer a literature review of the six areas of lifestyle medicine, paying particular importance to the point of view of corporations. Finally, the article reviews some employee interviews to support that the application of the concept even pays off in an emerging country like Hungary. The paper also clarifies whether it is possible to create employee value while creating shareholder value at the same time.

## **HEALTH DEVELOPMENT IN THE WORKPLACE – IMPACTS AND GOALS**

Aldana (2020a) argues that the primary impact of corporate-health programs is helping people learn and maintain healthy behaviours thereby it diminishes risks to their health. (E.g. physical inactivity, poor nutrition, smoking and other addictions, insomnia, stress, as well as medical conditions such as high blood sugar, high cholesterol, and high blood pressure.) Reducing these risks has the beneficial effect of cutting healthcare expenditures not only on the personal but also on the corporate and society levels. Company productivity rises when we reduce fluctuation, absenteeism, and presenteeism when an employee shows up to work but is physically or mentally unwell and thus underperforms. When a company looks after its employees' health, colleagues could become more creative, motivated, satisfied, and engaged. Workplace morale could improve.

In 2019, a meta-analysis was conducted from 339 Gallup studies that examined the well-being and productivity of 1,882,131 workers at 230 independent organizations in 49 industry sectors worldwide. The analysis found that worker satisfaction had a strong positive correlation

with productivity and client loyalty while being negatively correlated to fluctuation (Krekel et al., 2019).

According to research by Mercer (2018a), organizations that produce well are those that take a role in improving their workers' general well-being (physical, emotional, financial and social well-being). (Figure 1) People who score highly on tests that assess employee well-being are more affordable; employers spend 41 percent less on high-scorers than they spend on lower-scoring workers. Fluctuation among high-scoring employees was 35 percent lower, while their productivity was 31 percent higher. These studies found that 50 percent of workers want their employers to pay greater attention to their well-being. Employers who do so distinguish themselves; they make their companies more attractive to quality workers (Mercer, 2018b).

Figure 1. General employee well-being model of Mercer



Source: Mercer 2018a, 2018b

The US Centers for Disease Control (CDC) has identified four behaviours that contribute to chronic illness: poor nutrition, physical inactivity, frequent alcohol consumption and smoking. Analyses by Hayman (2016) found a significant interrelationship between workplace productivity and the workers' exercise habits, smoking habits, body-mass index (BMI) and nutrition. Productivity has a strong positive correlation between exercising and healthy eating habits and a significant negative correlation to smoking and BMI. These variables are responsible for 21 percent of productivity.

Kirkham et al. (2015) conducted a risk-assessment study among 17,089 workers over four years (2007-2010). In the case of people who were 35 or younger, the researchers identified a clear link between absenteeism/presenteeism and poor mental health, inadequate exercise, smoking and above-normal BMI. Among workers above 35, the data demonstrated a relationship between absenteeism/unsatisfactory work performance and high blood pressure, high blood-sugar levels, inadequate exercise and alcohol consumption. Table 1 shows how specific risk factors contribute to absenteeism and presenteeism, using data from an Australian study (Janson, 2020).

Table 1  
Risk factors' contribution to absenteeism and presenteeism

Risk factor	Absenteeism	Presenteeism	Total
<b>Type 2 diabetes</b>	4.94%	18.26%	<b>23.20%</b>
<b>Depression</b>	2.61%	14.51%	<b>17.12%</b>
<b>Alcohol abuse</b>	5.00%	4.78%	<b>9.78%</b>
<b>Overweight/obesity</b>	1.40%	8.30%	<b>9.70%</b>
<b>High cholesterol</b>	3.14%	4.91%	<b>8.05%</b>
<b>Tobacco use</b>	2.84%	4.78%	<b>7.62%</b>
<b>Chronic stress</b>	3.08%	4.45%	<b>7.53%</b>
<b>Asthma</b>	4.80%	1.20%	<b>6.00%</b>
<b>Migraine</b>	3.96%	1.99%	<b>5.95%</b>
<b>Physical inactivity</b>	0.28%	4.59%	<b>4.87%</b>

Source: Jason.I (2020)

Poor health status among employees leads to more absences from work, more presenteeism, lower productivity and lower profitability (Cancelliere, 2011). Extra costs also emerge. Goetzel et al. (2012) showed that companies devote more than 20 percent of their health expenditures to risk factors that can be managed: depression, high blood sugar levels, high blood pressure, obesity, smoking, physical inactivity and stress.

No wonder that when companies implement health programs, their main objective is to increase morale, dedication, and workforce maintenance while decreasing fluctuations (Szabó-Juhász, 2019). In a 2017 Investigator Sponsored Study (ISS), the largest number of companies cited these goals as most important because they bring about a decrease in absenteeism and expenditures while improving employee health and health consciousness (Nazareth, 2017).

At present, mental health, stress-management, meditation, and financial well-being are the most popular components of company-health programs worldwide, according to the Wellness Trend Reports of 2019 and 2020 by Wellable LLC (2019, 2020), a corporate-health consultancy. Based on a systematic review of workplace interventions aimed at promoting physical exercise, healthy body weight and adequate nutrition we also know that those programs are more effective when they comprise a wide variety of components (Schröer et al., 2014).

Table 2 summarises the goals and impacts of these programs. We may do that from various aspects. The Return on Investment (ROI) view only considers investments made and returns realised by the given company. At the same time, the VOI (Value on Investment) approach also focuses on effects realised by the participants. At the same time, the Social Return on Investment (SROI) measure aims to monetise the total inflows and outflows for all actors in the society (Szabó-Juhász, 2019).

A research by the Gallup Institute (Witters-Agrawal, 2015) found that satisfied workers – those who scored more points in the well-being index – were 30 percent less likely to be absent from work due to illness in the following month compared with those who might be engaged to their jobs, but whose well-being values were lower. Moreover, those with higher well-being scores spent 70 percent less time on sick-pay every year.

Table 2  
Goals and impacts of health programs

<b>ROI</b>	Decrease of health expenses at the firm Reduced number of days on sick-leave Less expense due to work-related accidents and health issues
<b>VOI</b>	Decreased health risks Increased health-consciousness Enhanced employee satisfaction Increased productivity, performance and profitability Lower fluctuation Attraction of talented employees Elevated work morale and energy level Higher workplace safety Better team cohesion Lower level of presenteeism Risen level of well-being
<b>SROI</b>	Lower social security health expenses More days on work Increased tax inflows Less demand for social aid and disability allowance Higher GDP growth

Source: Partly based on Szabó-Juhász (2019) and Aldana (2020b)

Table 3  
The advantages of the six areas of lifestyle medicine

	<b>Eat smarter</b>	<b>Move more</b>	<b>Sleep more soundly</b>	<b>Manage stress better</b>	<b>Cultivate relationships</b>	<b>Avoid risky substances</b>
<b>Increased health</b>	✓	✓	✓	✓	✓	✓
<b>Lower absenteeism</b>	✓	✓	✓	✓	✓	✓
<b>Better engagement</b>	✓	✓	✓	✓	✓	✓
<b>Greater focus</b>	✓	✓	✓	✓		✓
<b>Higher energy</b>	✓	✓	✓	✓	✓	
<b>Heightened creativity</b>		✓		✓		
<b>Fewer accidents</b>	✓		✓		✓	✓
<b>Higher productivity</b>	✓	✓	✓	✓	✓	✓

Source: Based on American College of Lifestyle Medicine (2020)

Once we concentrate on the six areas of lifestyle medicine, we see the advantages among employees in the corporate realm listed in Table 3. Let us now examine the six areas of lifestyle medicine and their impacts on companies in greater detail!

## STRESS

Stress is the most significant risk factor among workers worldwide. (Table 4) Research by Aldana (2001) shows that being overweight and stress are the two risk factors that are undoubtedly most responsible for higher healthcare expenditures and days off from work. When pressure and stress are part of an organization's culture, employers may spend 50 percent more on healthcare than the average workplace.

**Table 4**  
The most critical risk factors from the employers' standpoint

Globally	In Europe
Stress 64%	Stress 74%
Lack of physical activity 53%	Lack of physical activity 45%
Overweight/obesity 45%	Presenteeism 33%
Poor nutrition 31%	Overweight/obesity 32%
Lack of sleep 30%	Poor nutrition 31%

Source: Willis Towers Watson (2016)

An American study by Serxner et al. (2001) found that workers who struggle with mental-health problems are 150 percent more likely than average to be on sick-pay, while employees who experience workplace stress are 131 percent more likely to stay at home. Depression and anxiety cost the global economy \$1 trillion a year in lost productivity (Staglin, 2019).

In 2017, Deloitte estimated that poor mental health costs British employers £33-42 billion a year – £8 billion due to absenteeism, £8 billion from fluctuation and £17-26 billion from presenteeism. The financial, insurance and real-estate sectors spend the most on mental-health maintenance per employee per year.

According to estimates by the American Psychological Association, workplace stress costs the US economy more than \$500 billion a year and is responsible for 550 million lost workdays (Seppälä – Cameron, 2015). Stress causes 60-80 percent of workplace accidents and plays a role in more than 80 percent of visits to the doctor, according to estimates. If employers adequately addressed the problem of stress, they might prevent more than half of resignations by employees who move to different companies. Hence worker commitment is inversely proportional to workplace stress.

In 2018, two out of three workers experienced symptoms of burnout, and those who suffered from burnout were 2.6 times more likely to leave their present employers than the average employee (Barratt, 2019). In addition to poor dedication and higher fluctuation, burnout also brings a decline in productivity and an increase in absenteeism.

In Hungary, some 13 percent of workers report being under constant job-related stress, while an additional 30 percent say they often feel stressed. The National Workplace Stress Survey of 2013 found that the most significant stress factor in Hungary was a quick work tempo. Clarity

of job responsibilities, meaningful work assignments and a desirable workplace community all help to reduce job-related stress.

## EXERCISE

The World Health Organization (2011) has identified physical inactivity as the fourth most-significant preventable cause of death; it claims an estimated 3.2 million lives a year. The sedentary lifestyle cost \$67.5 billion worldwide in 2013 (The Guardian, 2016). Great Britain spends £424 million a year on cardiovascular ailments resulting from people sitting or lying down for at least six hours a day; the country spends an additional £281 million on type-2 diabetes and £30 million on colon cancers (The Guardian, 2019).

Physical inactivity is the second most significant risk factor for employees after stress, according to a survey of more than 1,600 workers in 34 countries in both Europe and worldwide (Willis Towers Watson, 2016). In 2016, exercise programs were among the most common components of workplace health programs worldwide; the most significant growth area compared to 2015 was the creation of on-site company gyms.

Canada has already conducted surveys on the impact of company-exercise programs in the early 1990s. Firms that offered such programs saw an increase in productivity and a decrease in absenteeism, fluctuation and workplace accidents. At the end of the 2000s, Australian companies were losing an average of \$458 in productivity per worker per year due to physical inactivity, according to estimates by KPMG-Econtech. Thus, increased physical activity in the workplace can benefit employees by improving their physical and mental health; meanwhile, employers can reap economic benefits through reduced absenteeism and increased productivity (Hunter et al., 2016).

People suffering from back pain are 140 percent more likely to be on sick-pay than the average worker; the likelihood for physically inactive people is 118 percent greater (Serxner et al., 2001). Companies in Great Britain lost £14.9 billion a year due to sick-outs, diseases and lost productivity caused by physical inactivity (Mason, 2017). Carr et al. (2016) also found a significant link between the improved markers stemming from physical activity (weight, total fat, the pulse rate at rest, body-fat levels) and improvements in productivity, concentration and absenteeism.

Still, even a small investment may bring a measurable change. Brinkley et al. (2017) found positive health impacts (aerobic fitness, physical activity) among people who completed a 12-week sports program; these were evident on both the individual level and in interpersonal relationships (group cohesion, interaction, communication) – all of which are useful for organizations. The so-called Intelligent Physical Exercise Training (IPET) program not only improves workers' health and fitness parameters, but it also contributes significantly to fewer sick-outs and increases productivity (Sjøgaard et al., 2014).

Researchers at Leeds Metropolitan University examined the impact of workplace exercise on 200 office workers. On days when the employees went to the gym, they were more efficient and speedier on the job, their time-management improved, they became more productive, and their cooperation with colleagues became more fluid than earlier. They also felt a greater sense of satisfaction at the end of the day (Friedman, 2014). Exercise helps people develop many skills that are transferrable to the workplace. These include perseverance, adaptivity, willpower, concentration, creativity, and decisiveness.

In 2014, 15 percent of Hungarians had the opportunity to do sports during working hours. However, after work, only 16 percent were able to visit a company gym or take advantage of an employer-sponsored membership at an outside sports facility. The ratio of these people was 26 percent in Austria, 33 percent in Poland, 40 percent in the United States, and 67 percent in Sweden, according to 2014 data from Randstad Workmonitor.

## NUTRITION

Obesity, being overweight and weak nutrition are among the top five risk factors affecting employers and employees in Europe and worldwide (Willis Towers Watson, 2016). In 2014, nearly 2 billion adults worldwide were overweight, and an additional 600 million were obese. Some 2.8 million people die every year from complications related to being overweight, meaning excess fat is the fifth most common cause of death. The Organization for Economic Cooperation and Development (OECD)'s 2017 Obesity Update reported that 30 percent of Hungarians are obese, behind only the United States (38.2 percent), Mexico (32.4 percent) and New Zealand (30.7 percent) among OECD member states.

Research by Columbia University found that obesity leads to increased absenteeism and lower productivity (Lee, 2015). Research by Anderson et al. (2009) shows that interventions aimed at helping employees shed excess weight will favourably affect productivity and company health expenditures.

Nutrition-related interventions may boost company profits by reducing the number of sick days and lost productivity (Jensen, 2011). A study prepared by researchers at Duke University found that obesity costs US employers \$73 million a year due to sick days and presenteeism. While companies spend \$3,838 in health expenditures on employees who maintain a healthy weight, health spending on overweight and obese workers runs between \$4,252-8,067. Every BMI point above the "normal" range costs an extra \$194-222 per worker per year. The absentee rate for overweight workers (BMI 25-30) is 15 percent greater than that of workers who maintain a healthy weight; the absentee rate for obese employees (BMI 30-40) is 53 percent greater, while the rate for workers with a BMI over 40 is 141 percent greater.

At the 2019 HVG Health-Conscious Workplace conference in Budapest, Frigyes Schannen of the Roland Berger consultancy stated that workers who practice healthy nutrition are 25 percent more productive on average than those who do not. A study by Brigham Young University contends that people who maintain unhealthy eating habits are 66 percent more likely to be less productive (Kohll, 2019).

Again here, we do not need much investment to make a change. An American insurance company found that people who completed a 22-week course on healthy eating (a dominantly whole-food plant-based diet) reported significant improvements in their physical health. At the same time, their mental performance and their intra-group relationships also ameliorated compared to a control group. Another study found that the more vegetables and fruit workers consume during the day, the more satisfied, engaged and creative they become in their jobs (Länger, 2019).

In Hungary, only 40 percent of people older than 16 consume fruit every day and just 30 percent eat fresh vegetables, according to data from the country's Central Statistical Office (KSH). This number is the worst rate in the EU – Hungary is at the bottom of the barrel. There is a strong link between the consumption of vegetables and fruit and material status: women,

people with higher levels of education and people in higher income brackets tend to consume more considerable amounts of vegetables and fruit.

## SLEEP

Sleep is one of the best methods of boosting performance. Researchers at the Stanford University Sleep Medicine Clinic found that basketball players who slept more improved their performance on the court. Well-rested players ran more often, and their ratio of successful basket-throws increased by 9 percent (Brandt, 2011).

A 2013 study found that just 8 percent of British workers wake up feeling refreshed; in other words, 92 percent go to work feeling tired (The Sleep Council, 2013). According to Rand Europe, the physical and mental ailments resulting from lack of sleep pulled down Britain's GDP by nearly £40 billion in 2016; that is, nearly 200,000 workdays were lost to illnesses stemming from poor sleep. In 2016, sleeplessness cost the US economy \$411 billion and more than 1 million lost workdays. Lack of sleep pulled down production by \$138.6 billion in Japan, \$60 billion in Germany, and \$21.4 million in Canada.

From 1975 to 2006, the number of Americans who slept barely six hours a night rose by 22 percent. People who sleep less than six hours produce less and are absent from work more frequently; moreover, the number of unexpected deaths in this group is 13 percent higher than among people who sleep seven to nine hours a day (Uzialko, 2019). The risk of mortality rises by about 15 percent for people who sleep less than five hours a day.

Workers who slept less than five hours, or more than 10 hours, went on sick-leave for 4.6-8.9 days more than those who slept for seven to eight hours. The optimal amount of sleep is 7.8 hours a day for men and 7.6 hours for women; people who got adequate sleep took the least number of sick-days (Almendra, 2014).

Too little sleep results in lost productivity, less creativity, worse memory retention (the kind of memory that is related to problem-solving, vocabulary, decision-making and reading comprehension) and it also raises the risk of burnout (Chan, 2017). In addition to lower productivity, sleeplessness has other consequences that impact workplace morale and atmosphere. Tired-out, edgy workers have trouble accepting and tolerating their colleagues. Their ability to communicate deteriorates, which increases workplace stress.

If employees can take a nap during work hours, their productivity will eventually increase, and they will be better able to deal with stress, according to a study by the University of Michigan. This improvement is particularly apparent for those who are unable to sleep through the night for whatever reason. Unions in Finland affirm that productivity improves when companies permit their workers to take naps; it also has a positive effect on financial results. A nap of 20-30 minutes is plenty (Brooks, 2015).

## ADDICTIONS

**Smoking.** Roughly 1 billion people around the world smoke, or one-seventh of the global population, according to the WHO. Smoking eats up about 6 percent of healthcare-related expenses worldwide.

Smoking costs American companies about \$300 billion a year in health expenditures and productivity losses, according to the CDC (2020). The average smoker costs her or his employer

nearly \$6,000 more than the average non-smoker. Smoking inflicts estimated annual losses of £5 billion on British industry due to reduced productivity, sick-outs and fire-related damage. Numerous studies have shown that smokers' rates of absenteeism, accidents and injuries are significantly higher than those of non-smokers.

A Swedish study of more than 14,000 workers found that smokers spend an average of 11 more days on sick-leave than non-smokers. (Halper et al. 2001, CNBC, 2014) They are also less productive; this is partly due to “withdrawal symptoms” – smokers' performance declines if they have not had a chance to light up for a while – and partly because smokers take many cigarette breaks. The rate of presenteeism for smokers is also 66 higher than for non-smokers. If workers can quit smoking, they can boost the efficiency, quality and quantity of their work. This link is not only according to researchers, but also non-smoking colleagues. Indeed, smokers themselves acknowledge this as a fact.

**Alcohol and Drugs.** The International Labor Organization (ILO) estimates that 3-5 percent of the global workforce is alcohol-dependent and 25 percent are heavy drinkers. Alcohol and drug consumption inflict losses of \$100 million a year on US workplaces, according to the US National Clearinghouse for Alcohol and Drug Information (NCADI). Alcohol and drug consumption drives up the number of deaths, accidents and absences from work; it reduces productivity, attention span and concentration; it deters morale and community cohesion (Buddy, 2020).

According to NCADI statistics (Buddy, 2020), alcohol and drug users are absent from work three times more often than other workers; they are also five times more likely to initiate lawsuits for damages. People struggling with severe alcohol or drug problems are 33 percent less productive than their colleagues and cost their employers an average of \$7,000 more per year. Some 40 percent of workplace deaths can be linked to alcoholism.

A New Zealand university examined 800 employees and 227 employers. It estimated that alcohol problems were responsible for productivity losses of \$1,097.71 per worker per year (\$209.62 due to absences from work and \$888.09 from presenteeism). That means each employer spent \$134.60 dealing with the consequences of workers' alcohol-consumption – that is, time spent on health-related, disciplinary and legal issues. On the national scale, this amounts to more than \$1.65 billion a year – money that could be spent elsewhere, such as health programs (University of Otago, 2019).

## **SOCIAL RELATIONSHIPS**

In 1938, Harvard University launched a 75-year study of more than 700 people that sought to identify the elements that were most important for leading a happy, healthy life. The research found that well-being, the economy, reputation, genetics, social class and IQ were not nearly as important as friends, family, and community relations (Waldinger, 2019).

Good workplace communities and good social relations represent one of the foundations of employee well-being. Workplace relations can positively or negatively influence a worker's stress level, productivity and general happiness. Workplace friendships can foster higher productivity and commitment. When colleagues connect on both a professional and personal level, it significantly improves job performance because workers feel more comfortable asking for help and advice. Moreover, an easy-going atmosphere facilitates the free flow of information, which brings a lot of positives (Burkus, 2017).

Good relations with colleagues are one of the great motivators of job dedication – some 77 percent of study participants cited relationships as the most crucial factor. The quality of these relationships significantly affect loyalty, job satisfaction and productivity (SHRM, 2016).

**Table 5**  
**Annual Expenditures in Each Area of Lifestyle Medicine**

	USA	United Kingdom
Mental health/stress	\$500 billion	£33-42 billion
Physical inactivity		£15 billion
Obesity	\$73 billion	
Sleep deprivation	\$411 billion	£40 billion
Smoking	\$300 billion	£5 billion
Alcohol and drug	\$100 billion	
<b>Total annual costs</b>	<b>\$1384 billion</b>	<b>£93-102 billion</b>

Source: Based on Seppälä – Cameron (2015), Deloitte (2017), Mason (2017), Jensen (2011), Rand Europe (2016), CDC (2020), Buddy (2020)

## **BEST PRACTICES FOR CORPORATE LIFESTYLE MEDICINE PROGRAMS**

Literature also offers descriptions for some good examples for lifestyle-medicine programs. For example, Vanderbilt University conducted a six-month pilot project on lifestyle medicine. The program cost \$32,000 and resulted in savings of \$92,582 on healthcare expenditures. In other words, net savings amounted to \$67,582 (Shurney et al., 2012).

A year-long lifestyle-medicine program for people with type-2 diabetes and obesity led to a 64.3 percent reduction in missed workdays compared to the situation before the program was implemented. Similar tendencies were observed among people suffering from depression (Wolf et al., 2009).

A case study on lifestyle medicine by Carmel Clay Schools (CCS) found that 49 percent of workers felt more committed to their jobs. In comparison, employers were able to reduce healthcare costs by 36 percent (American College of Lifestyle Medicine, 2020). In the case of the Rosen hotel chain, lifestyle medicine led to lower fluctuation. In essence, the hospitality industry's average fluctuation rate of 50 percent dropped to the single digits (American College of Lifestyle Medicine, 2020).

Texas Hospital launched an experimental lifestyle-medicine program involving 30 employees. The results were convincing: Participants' biometric data improved while their demand for pharmaceutical medicines declined – along with their health-insurance expenses (American College of Lifestyle Medicine, 2020).

General Electric's lifestyle medicine programs helped bring about a reduction in diabetes, high blood pressure, absenteeism, and drug consumption (both legal and illegal), along with improvements in mental health (American College of Lifestyle Medicine, 2020). It also became clear that a more flexible, healthier workforce is much better able to support the company's mission.

To conclude the literature review, it seems that company-run health programs can create shareholder value by providing a good return on investment while improving the quality of life

for the employees. A relatively new type of such health programs is Lifestyle Medicine that targets to improve the well-being of participants in six dimensions. However, all of those dimensions were proved to have a strong link with the workplace performance of the individual. Due to that connection, we may expect that Lifestyle Medicine programs may generate value both for the employers and the employees at the same time. Next, the paper investigates the lessons learned of a Lifestyle Medicine program organised in Hungary.

## **EMPIRICAL RESEARCH ON HUNGARIAN LIFESTYLE MEDICINE EXPERIENCES**

To get a good overview of lifestyle medicine practices in Hungary, we conducted in-depth interviews. We focused on both employee and company level effects and value creation.

We could only find one finished lifestyle medicine program in Hungary that was performed at AON, but several more are up and running. Based on the guidelines of Lifestyle Medicine Global Alliance, American College of Lifestyle Medicine, and International Board of Lifestyle Medicine, the health improvement program of the Longevity Project consists of 18 ninety-minutes employee consultations across 12 weeks. Besides offering theoretical knowledge, a particular focus is laid on integrating the healthy habits into the daily routine in all the six earlier presented areas of the program. At the start, the middle, and the end of the program organisers include analytical laboratory tests.

The average results of the 12-week program showed a weight decrease of 2.6 kilograms (5.5 kilograms for those with overweight at the start), lowering blood pressure (4.9 points), cholesterol (0.1 mmol/L) and blood sugar (0.8 mmol/L) level.

Due to the limitations to hinder the spreading of the coronavirus, the interviews were conducted online. Six participants, three women and three men agreed to share their experiences during interviews lasting typically 60 minutes in March 2020, a year after the program finished. Three of the participants worked for less than ten years for the given employer, and two of them were below 35. Only two of the interviewees took part in all the 18 sessions of the program, others could not do so because of their work and clients.

Our interviews focused on five key areas. Those were (1) employee value offered by the firm, (2) the meaning of health, (3) the effects of the program in the six dimensions respectively, (4) the program effect at the organisational level, and (5) the actions taken due to the spreading of the coronavirus.

## **CREATING EMPLOYEE VALUE**

When it comes to choosing one's workplace, the primary motivator is usually the wage. However, once reaching a certain level of monetary compensation, other factors would see their importance growing. Interviewees were basically happy with their earnings (the compensation arm of EVP), and flexibility (EVP benefits) and freedom (EVP environment) were listed as essential issues in all age and gender categories. Several of the interviewees mentioned work-life balance (EVP environment) and social connections, colleagues and team (EVP culture).

*“What first came into my mind was that flexibility, freedom and start-up-like operation are very important to me. It is great that we have these... For example, earlier, I had the opportunity to work in the home office one or two days a week.” “Freedom. None should tell me what I should do*

*just now. I should manage that as I wish to.” “I work here together with great guys, many of them are friends of mine, my wife even got friends here. I would even stay in touch with them if we did not work for the same company.”*

For the younger colleagues and one of those above 35, it was also the opportunity to develop (EVP career) that was important. This development covers a wide range of opportunities from a given kind of work or project through credible mentors until particular kinds of training sessions or health support.

*“... opportunities to develop mean on the one hand exiting projects, and those are really there. And, of course, great colleagues, credible mentors whom you can learn from ... and on the other hand, even programs like this one, training sessions ... for me development is a vital value.”*

Several quoted the mission of the firm (EVP culture) that one could espouse. They ask for the firm to have a noble aim that creates value.

*“The mission of the company that we aim at helping firms to turn into better workplaces – I can attach to that really.” “A higher goal you can work for in a team based on a set of values.” “It is great that I have to deal with people; it is diverse and creative.”*

It seems that our interviewees get what they wish of a workplace. Nevertheless, these factors were important even when they chose their current job. The presence of these values makes them like the firm they work for and keeps them loyal, in some cases for more than 13 years. We did not find any value requests made explicit that were not fulfilled to some extent. This result may originate from the fact that employees may not work long for companies not covering some of their crucial value requests not only in developed regions but also even in emerging countries like Hungary. Thus, learning about the value requests of colleagues could be vital in keeping them loyal.

## HEALTH

Health appears in any research as an important factor. Several of our interviewees took care of their health well before the start of the program. They apply a holistic view both considering mental and physical health and understand the importance of all six areas of lifestyle medicine. Still, the program made them more health-conscious in all fields.

Respondents considered health as the most crucial factor in their life. Without health, there is no freedom, flexibility, or performance, and one may even suffer that people want to evade not only now but also during their old age. One of their characteristics of the program is that it has a long-term effect on the behaviour of the participants, and most of them even wish for a currently non-existing alumni program.

*“Health is the most important. My performance is a hundred times higher when I am well.” “Health is everything I have. If that is missing, I have nothing. No adventure, no freedom. ... I want to get the maximum out of my life, and for that, you need a lot of energy, and health is energy.” “I should live long without suffering so I will be able to do things, make excursions, work, carry cans of water even at the age of 70.” “I should not be hindered in doing anything I wish by my own body. There should be nothing that I only wish to be capable of.”*

This health program offers scientific background and information to the participants that are vital to understanding connections, make the right decisions and that can be taken away for all their life. They stopped blaming genetics and environment and understand that their

responsibility is far more significant than what they thought earlier it was. Participants were inspired for a step-by-step change and realised the importance of small steps.

*“This kind of view makes you stop panicking because of what you inherit with your genes. You realise that you have bigger control over your health than what you thought earlier you would have. ... and I received hands-on tricks to reduce risks.” “I do not need to do everything at once. It is great even if I change one thing... even small steps can end up leading to a big change.”*

## RESULTS AT THE PERSONAL LEVEL

Based on the answers, participants got more conscious of all the six dimensions of the program. They are even proud that they could make changes, and due to those they feel now healthier and take even more care of their health. We heard several times that they consider some new healthy habits (have more sleep, start meditating, do more exercises) not yet applied. It was their nutrition that interviewees had changed the most.

*“I became more conscious. I am more careful now than earlier.” “It was due to the program that I realised ... that damn I really have to take care. There should not be too much time spent without doing some exercises.” “I am tickled by the idea of meditating.”*

Table 6  
Subjective scoring of own health and parts of the program (1: poor – 7: great)\*

	Before the program	After the program
Health	4.30	5.30
Healthy eating	3.40	5.30
Physical exercise	3.60	4.40
Manage stress	4.33	4.33
Sleep	4.75	4.83
Relationships	6.20	6.40
Avoiding risky substances	4.25	4.50

\*Scoring was done for both before and after program level 1 year after the program

Source: own results

**Healthy Eating.** Key realised results include decreasing the amount of food of animal origin, eating less meat, cutting back on processed food, taking more vegetables, fruits, and legumes. Participants said to use less of fat and sugar, and recorded weight loss (one respondent gained weight).

**Physical Exercise.** Interviewees underlined the power of walking, and they happily realised that they do not need to run the marathon to experience changes. Some of them take time for exercises at home and use physical activity as a stress management method.

**Manage Stress.** While meditation came to the mind of all the respondents, their attitude towards it was quite divergent (only alone – just in a group, every day – only on a case-by-case basis, did not work – does not want to try – works great). Some use alternative methods like breathing exercises or gardening.

**Sleep.** Most of the respondents listed that they realised they need more sleep than they usually had until then and not sleeping enough is bad for them. They started turning of blue

light of the gadgets, but only two of them managed to replace internet surfing by reading books. Some quoted sleeping during the afternoon may do good.

**Relationships.** Since the training has finished, several of the participants increased the amount of time spent together with their family members. All of them have at least two-three, high-quality social connections. They emphasised that connections are essential at any stage of life and want to keep their current connections for their older age as people do in traditional “blue zones” offering higher life-expectancy.

**Risky Substances.** Interviewees realised not only drugs, cigarettes and alcohol could harm, one can be addicted even to smart phone, social media and shopping. Nevertheless, the only smoker has not given up his bad habit so far.

## RESULTS AT THE COMPANY LEVEL

While identifying the impacts for the company could serve the interest of the employer; unfortunately, there was no measurement of any kind from the firm side. That is why we have the interviews as an only source for judgement. Table 7 summarises our results.

Table 7  
Subjective scoring of work effects of the program (1: poor – 7: great)\*

	Before the program	After the program
Absence from work	6.50	6.66
Satisfaction	5.33	5.83
Engagement	5.25	5.99
Motivation	6.00	6.00
Concentration	5.00	5.00
Performance	5.34	5.50
Morale, mood, connections	5.50	5.84
Energy	4.67	5.00
Creativity	5.00	5.00
Connection with the boss	6.00	6.00
Workplace well-being	5.00	5.75

\*Scoring was done for both before and after program level 1 year after the program

Source: own results

Most of the respondents stated that the program did not affect their work in any way. The majority of them did not even wait for that to happen, instead only had personal goals, expectations and requirements. Participants were not sickish earlier either, and they rarely missed a day at work. They did not report on any change in their motivation, concentration, creativity or connections to their superiors.

Though some admitted that the program had a positive effect on the team building and cohesion, others argued for a negative impact as only a few of the colleagues took part at all the program sessions. Some thought that their superior not taking part in the program harmed the team cohesion as they missed a positive role model. It is an important lesson to draw that more significant participation rate is more advantageous for team cohesion, however, for success, it is

even more critical, that the leader of the team joins the training. At the same time, some of the respondents believe in becoming more energetic and efficient since the program finished, mainly due to the changes in their eating habits (light shakes, no food coma).

*“I have to highlight the power of the community. It is great to have someone next to me who helps me to recall the basics and pushes me back to the foundations of the Longevity program.” “It has a feeling to sit around the negotiating table and meditate.” “I expected a huge team effect. That we would help each other... Nevertheless, only three of us were there each time, and even the manager dropped out. There was no increased team cohesion. Our team is great, but not because of this training. On the contrary, I even had negative experiences. If people do not take this seriously, all the effort will backfire. ... Only very few of us took part seriously.” “In my view, it is not OK that the boss did not take part in this. He attended the first meeting but then disappeared. I mean he should have guided us by going together all the way along.”*

Regarding satisfaction and engagement, opinions were rather diverse. Some meant the program had no effect, while others believed many results (the company takes care of the employees; health is a valuable asset) could be tracked.

It seems evident that a single health program is not enough to achieve those aims. The job attitude is linked to various personal, organisational, and environmental factors. All participants agreed though that the company has a robust human-focused mindset when they experienced even earlier before the start of this program.

*“It was due to the supportive community that my satisfaction changed. Moreover, because it is just so hot that our company invests in such a thing.” “Loyalty has changed... How great that the firm, our management takes care of the employees, but it was a drawback that not all of us could be there.” “I feel gratitude... we should not only look at how the work is going but rather also how people are doing.” “You need to do more in all dimensions. This alone is not enough.” “There is no change in my satisfaction. Of course, I was happy about it, but I do not believe it would have a measurable effect on my workplace satisfaction.”*

Nevertheless, we witnessed people quickly reacting as experiencing no satisfaction or engagement impact at all, but later during the conversation, they recognised some hidden effects.

*“Somewhere at the back of my brain, it is there that we had such training. This promotes bonding. You would not have this at other companies. They probably go out once a year to play darts. This is an indirect effect.” “So, this is a human-centred firm. So, I see, I work for such a company.”*

As for their well-being, interviewees do not separate a private and a job well-being. As their general well-being is better and they are happier than before the program. Beside of that, we also identified spreading effects, too. Those participating may influence the others, can help their colleagues, friends, and members of the family. There were even some who promoted the program among the clients of the firm.

*“It is enough to convince one single person. You only have to know who that is. ... An influencer, an opinion leader. Me, with my limited ability to influence, I have a minimal impact. But still more than zero.” “I am an ambassador. I even recommend it to clients.”*

## **DEALING WITH THE CHALLENGES OF THE CORONAVIRUS**

At this firm, working partly from at home was also earlier an opportunity for most of the employees. Thanks to that, the obligatory use of the home office system produced no problems, all

runs smoothly. To make the home office even more convenient, the employer allowed colleagues to take home the office equipment as the monitor, mouse or keyboard.

Next to that, we find several other items supporting the well-being of the employees. Regularly, letters with facts and information on the situation are emailed to all colleagues. The number of meetings has increased, and there is always time during those when participants may share how they are getting on. Also, everyone has once a week a meeting with her (his) boss where one may talk about individual problems and difficulties. The cohesion of the team is well illustrated by the online parties, joint workouts, film club and online games played together.

There is also an emphasis on personal development. Everyone has a budget to spend on her education, like online courses.

During the curfew, colleagues started again to share healthy recipes and photos of healthy food, something that was typical during and right after the Longevity program. One employee categorised and shared possible online physical activities while others started to integrate mindfulness meditation into their everyday life. It seems that many things learned during the program are very handy nowadays.

## CONCLUSIONS

The literature argues that investment in employee health programs pays off as one may realise a return of 1 to 5 dollars on one dollar invested. As a wide range of problems and the vast amount of expenses that are directly linked to employee health issues globally, we may expect the corporate health programs to gain importance in the coming decades.

It seems that a complex system of various personal, organisational, and cultural factors determines the well-being of the employees. Thus, when addressing the effects of health programs return and cost-focused (ROI), employee-focused (VOI), and society-focused (SROI) approach may all lead to different results.

This article focused on one particular type of health program; Lifestyle Medicine that targets to improve the well-being of the participants in six dimensions. Our literature showed that a wide range of those harmful effects that this program helps to evade was earlier proved to have a direct effect on the workplace performance of the individual in question.

Our interview-based research showed that participants of a Hungarian Lifestyle Medicine program identified various positive impacts on their personal life and overall well-being. At the same time, they started to experience no or very few effects on their office life. Still, when addressing indirect impacts, they could find some positive outcomes on satisfaction, engagement, energy, morale and connections. These limited results are yet not merely due to the type of quality of the training. In the given case, only a small number of colleagues participated in the program and in the interviews, and many have missed some or several of the 18 sessions during the 12-weeks of the program. Also, the direct superior of the participants showed up only at the first meeting that is considered by the participants to limit the team cohesion. We may conclude that just like in the case of other corporate health programs and enterprise risk management systems generally, a strong commitment of the top management is vital for overall success.

We also learned that some techniques presented during the Lifestyle Medicine sessions helped participants to overcome the difficulties caused by the spreading of the coronavirus. Also, the home office solutions introduced earlier to add employee value proved now to generate shareholder value by easing the cooperation form at home.

To synthesise our key findings, it seems that Lifestyle Medicine programs may create value both for employees and employers as it aims to improve factors with a proven link with both personal well-being and work productivity. However, both the initial level of employee well-being and the way a firm organises such training that could impact the results. The general level of involvement of the organisation and particularly that of the top management is vital.

We need to see that this research was built only on six interviews and could just track short term results while changing one's lifestyle should mostly have effects in the long run by cutting back on risk factors. The literature states that most of the outcomes would only show 2-5 years after running a health program. Further research is needed to understand what factors drive the success of these programs, particularly for employers.

## REFERENCES

- Aldana, S.G. (2001), "Financial impact of health promotion programs: a comprehensive review of the literature", *American Journal of Health Promotion*, Vol. 15 No.5, pp. 296-320. DOI:10.4278/0890-1171-15.5.296
- Aldana, S.G. (2020a), "7 Reasons Workplace Health Promotion Programs Work", available at: <https://www.wellsteps.com/blog/2019/01/04/workplace-health-promotion-programs/> (10 February 2020)
- Aldana, S.G. (2020b), "Wellness ROI vs VOI: The Best Employee Wellbeing Programs Use Both", available at: <https://www.wellsteps.com/blog/2019/01/10/wellness-roi-employee-wellbeing-programs/> (10 February 2020)
- Almendrala, A. (2014), "Yet Another Way Getting Too Little Sleep Affects Your Job Performance", available at: [https://www.huffpost.com/entry/sleep-work-sick-day\\_n\\_5787366](https://www.huffpost.com/entry/sleep-work-sick-day_n_5787366) (10 September 2014)
- American College of Lifestyle Medicine (2020), "Making the Case for Lifestyle Medicine", available at: [https://www.lifestylemedicine.org/ACLM/Tools\\_and\\_Resources/Case\\_for\\_Lifestyle\\_Medicine.aspx](https://www.lifestylemedicine.org/ACLM/Tools_and_Resources/Case_for_Lifestyle_Medicine.aspx) (13 April 2020)
- Anderson, L.M., Quinn, T.A. Glanz, K. (2009), „Task Force on Community Preventive Services. The effectiveness of worksite nutrition and physical activity interventions for controlling employee overweight and obesity: a systematic review”, *American Journal of Preventive Medicine*, Vol. 2009 No. 37, pp. 340-357.
- Barratt, B. (2019), "Burnout Is Costing You And Your Business. Here's How To Avoid It", available at: <https://www.forbes.com/sites/biancabarratt/2019/07/23/burnout-is-costing-you-and-your-business-heres-how-to-avoid-it/#5ff743bca4e9> (23 July 2019)
- Brandt, M (2011), "Snooze you win? It's true for achieving hoop dreams, says study", available at: <https://med.stanford.edu/news/all-news/2011/07/snooze-you-win-its-true-for-achieving-hoop-dreams-says-study.html> / (16 September 2019)
- Brinkley A., Mcdermott H., Grenfell-Essam R., Munir F. (2017), "It's Time to Start Changing the Game: A 12-Week Workplace Team Sport Intervention Study", *Sports Medicine*, Vol. 3, 30.
- Brooks, C. (2015), "Nap Time? Sleeping at Work Boosts Productivity", available at: <https://www.businessnewsdaily.com/8165-sleeping-at-work> (16 September 2019)
- Buddy, T. (2020), "The dangers of substance abuse in the workplace", available at: <https://www.verywellmind.com/substance-abuse-in-the-workplace-63807> (22 March 2020)

- Burkus, D. (2017): "Work Friends Make Us More Productive (Except When They Stress Us Out)", available at: <https://hbr.org/2017/05/work-friends-make-us-more-productive-except-when-they-stress-us-out>, (26 May 2017)
- Cancelliere, C., Cassidy, J.D., Ammendolia, C., Côté, P. (2011), "Are workplace health promotion programs effective at improving presenteeism in workers? A systematic review and best evidence synthesis of the literature", *BMC Public Health*, Vol. 2011 No. 11, 395.
- Carr, L., Leonhard, C., Tucker, S., Fethke, N., Benzo, R., Gerr, F. (2016), "Total Worker Health Intervention Increases Activity of Sedentary Workers", *American Journal of Preventive Medicine*, Vol. 50 No. 0, pp. 9-17.
- CDC (2020): "Fast Facts", available at: [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/fast\\_facts/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm) (22 March 2020)
- Chan, A. (2017), "7 Ways Sleep Affects Your Work", available at: [https://www.huffpost.com/entry/sleep-work\\_n\\_5869168/](https://www.huffpost.com/entry/sleep-work_n_5869168/)(26 September 2014)
- CNBC (2014), "Just how much does that smoke break cost?", available at: <https://www.cnbc.com/2014/03/05/just-how-much-does-that-smoke-break-cost.html> (5 March 2014)
- Danna K, Griffin RW. (1999), "Health and well-being in the workplace: A review and synthesis of the literature", *Journal of Management*, Vol 1999 No 25, pp. 357-84.
- Deloitte (2017), "Mental health and employers: the case for investment", available at: <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/public-sector/deloitte-uk-mental-health-employers-monitor-deloitte-oct-2017.pdf> (16 September 2019)
- Deshpande, A. (2019), "Sustainable Employee value proposition: A Tool for Employment Branding", available at: [https://www.researchgate.net/publication/331320052\\_Sustainable\\_Employee\\_value\\_proposition\\_A\\_Tool\\_for\\_Employment\\_Branding](https://www.researchgate.net/publication/331320052_Sustainable_Employee_value_proposition_A_Tool_for_Employment_Branding) (16 March 2020)
- Friedman, R. (2014), "Regular Exercise Is Part of Your Job", available at: <https://hbr.org/2014/10/regular-exercise-is-part-of-your-job/>(3 October 2014)
- Goetzel, R., Pei, X., Tabrizi, M., Henke, R., Kowlessar, N., Nelson, F.C., Metz, R. (2012), "Ten Modifiable Health Risk Factors Are Linked To More Than One-Fifth Of Employer-Employee Health Care Spending", *Health Affairs*, Vol. 31 No.11, pp. 2474-2484.
- Goetzel, R.Z., Roemer, E.C., Liss-Levinson, R.C., Samoly, D.K. (2008), "Workplace Health Promotion: Policy Recommendations that Encourage Employers to Support Health Improvement Programs for their Workers", available at: <http://prevent.org/data/files/initiatives/workplacehealthpromotionpolicyrecommendations.pdf> (16 September 2019)
- Grand View Research (2020), "Corporate Wellness Market Worth \$97.4 Billion By 2027", available at: <https://www.grandviewresearch.com/press-release/global-corporate-wellness-market> (12 April 2020)
- Halpern, M.T., Shikiar, R., Rentz, A.M., Khan, Z.M. (2001), "Impact of smoking status on workplace absenteeism and productivity", *Tobacco Control*, Vol. 10 No.3, pp. 233-238.
- Hayman, S. (2016), "The Relationship Between Health Risk and Workplace Productivity in Saudi Arabia", Doctoral Dissertation, Walden University, available at: <https://scholarworks.waldenu.edu/dissertations/3034/> (8 October 2018)
- <https://www.randstad.dk/om-os/presse/new-download-folder/workmonitor-2014-q1.pdf> (16 September 2019)
- Hunter, R., Brennan, S., Tang, J., Smith, O., Murray, J., Tully, M., Patterson, C., Longo, A., Hutchinson, G., Prior, L., French, D., Adams, J., McIntosh, E., Kee, F. (2016), "Effectiveness

- and cost-effectiveness of a physical activity loyalty scheme for behaviour change maintenance: A cluster randomised controlled trial“, *BMC Public Health* 16, 618.
- Jason.l (2020), “ROI for Employee Health Whitepaper”, available at: <https://www.jasonl.com.au/blogs/main/roi-for-employee-health-whitepaper>, (13 April 2020)
- Jensen, J.D. (2011), “Can worksite nutritional interventions improve productivity and firm profitability? A literature review“, *Perspectives in Public Health* 2011/131, pp.184-192.
- Kirkham, H., Bobby, L.C., Bolas, C.A., Lewis, G. H., Jackson, A.S., Fisher, D., Duncan, I. (2015), “Which Modifiable Health Risks Are Associated with Changes in Productivity Costs?“, *Population Health Management*, Vol. 18 No.1, pp. 30-38.
- Kohll, A. (2019), “Nutrition: The Missing Piece of the Corporate Wellness Puzzle“, available at: <https://www.forbes.com/sites/alankohll/2019/07/17/nutrition-the-missing-piece-of-the-corporate-wellness-puzzle/#6675aa1b3f50> (17 July 2019)
- Krekel, C., G. Ward, J. De Neve (2019), “Employee wellbeing, productivity and firm performance“, CEP Discussion Paper 1605., Centre for Economic Performance, LSE
- Länger, J. (2019), “Táplálkozás a munkahelyen: így hat az irodai étkezde a dolgozók teljesítményére“, available at: [https://hvg.hu/brandchannel/HVG\\_Konferencia\\_20190507\\_Taplalkozas\\_a\\_munkahelyen?fbclid=IwAR0ynpcK5rvpsjuU\\_AADZd6CryXUZOl9nM2Xr198StnnCRmQ81d-HfvTqTQ](https://hvg.hu/brandchannel/HVG_Konferencia_20190507_Taplalkozas_a_munkahelyen?fbclid=IwAR0ynpcK5rvpsjuU_AADZd6CryXUZOl9nM2Xr198StnnCRmQ81d-HfvTqTQ) (7 May 2019)
- Lee, B. Y. (2015), “Obesity Is Everyone's Business“, available at: <https://www.forbes.com/sites/brucelee/2015/09/01/obesity-is-everyones-business/#2b977eac3b6f> (1 September 2015)
- Loef, M., Walach, H. (2012), “The combined effects of healthy lifestyle behaviors on all cause mortality: a systematic review and meta-analysis“, *Preventive Medicine*, Vol. 55 No. 3, pp. 163-170.
- Mason, L. (2017), “Workplace Challenge: boosting physical activity at work“ available at: <https://www.personneltoday.com/hr/workplace-challenge-boosting-physical-activity-at-work/> (1 October 2017)
- Mercer (2018a), “Thriving in A Disrupted World“, available at: [www.mercer.com/our-thinking/thrive/thriving-in-a-disrupted-world.html](http://www.mercer.com/our-thinking/thrive/thriving-in-a-disrupted-world.html) (15 December 2017)
- Mercer (2018b), “Strengthening your employee value proposition“, available at: <https://www.imercer.com/uploads/common/HTML/LandingPages/AnalyticalHub/july-2018-spotlight-career-strengthening-your-employee-value-proposition.pdf> (16 September 2019)
- Nazareth, S. (2017), “ISS Research: Health and well-being can improve profits through enhanced productivity“, <https://www.servicefutures.com/iss-research-health-well-can-improve-profits-enhanced-productivity> (10 August 2019)
- OECD (2017), “Obesity Update“, available at: <https://www.oecd.org/els/health-systems/Obesity-Update-2017.pdf> (16 September 2019)
- Országos Munkahelyi Stressz Felmérés (*National Workplace Stress Survey*) (2013), available at: <http://www.munkahelyistresszinfo.hu/a-munkahelyi-stressz-merese/munkahelyi-stressz-felmeres-eredmenyek/> (16 September 2019)
- PWC (2014), “Creating a mentally healthy workplace“, available at: <https://www.headsup.org.au/docs/default-source/resources/bl1269-brochure---pwc-roi-analysis.pdf?sfvrsn=6> (16 September 2019)

- Rand Europe (2016), "Why sleep matters – the economic costs of insufficient sleep. A cross-country comparative analysis", available at: [https://www.rand.org/pubs/research\\_reports/RR1791.html](https://www.rand.org/pubs/research_reports/RR1791.html) (16 September 2019)
- Randstand Workmonitor (2014), "Healthy employees perform better", available at:
- Raya, R.P., Panneerselvam, S. (2013), "The healthy organization construct: A review and research agenda", *Indian Journal of Occupational and Environmental Medicine*, Vol. 17 No.3, pp. 89-93.
- Schannen F. (2019), "Vállalati egészségkultúra mint új stratégiai prioritás?", Egészségtudatos Munkahely HVG Konferencia, Budapest, 2019.05.21.
- Schröer, S., Haupt, J., Pieper, C. (2014), "Evidence-based lifestyle interventions in the workplace – an overview", *Occupational Medicine*, Vol. 64 No.1, pp. 8–12.
- Seppälä, E., Cameron, K. (2015), "Proof That Positive Work Cultures Are More Productive", available at: <https://hbr.org/2015/12/proof-that-positive-work-cultures-are-more-productive> (1 December 2015)
- Serxner, S., Gold, D.B., Bultman, K.K. (2001), "The impact of behavioral health risks on worker absenteeism", *Journal of Occupational and Environmental Medicine*, Vol. 43 No. 4, pp. 347-354.
- SHRM Research (2016), "Employee Job Satisfaction and Engagement", available at: <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/2016-Employee-Job-Satisfaction-Engagement-Flyer.pdf> (16 September 2019)
- Shurney, D., Hyde, S., Hulsey, K. (2012), "CHIP Lifestyle Program at Vanderbilt University Demonstrates an Early ROI for a Diabetic Cohort in a Workplace Setting: A Case Study", *Journal of Managed Care Medicine*, Vol. 15 No.4, pp. 5-15.
- Sjøgaard, G., Justesen, J. B., Murray, M., Dalager, T., Sjøgaard, K. (2014), "A conceptual model for worksite intelligent physical exercise training – IPET – intervention for decreasing life style health risk indicators among employees: a randomized controlled trial", *BMC Public Health*, Vol. 14 No. 652, pp. 1-12.
- Staglin, G. (2019), "Why Mental Health Is An Executive Priority", available at: [https://www.forbes.com/sites/onemind/2019/03/18/why-mental-health-is-an-executive-priority/?fbclid=IwAR3st\\_\\_IK9W\\_OU8t9YCNgb75Ffdv5qQx8YkDr3WcSCthGHQxU7XDDEV18\\_8U#7d0045c65bb4](https://www.forbes.com/sites/onemind/2019/03/18/why-mental-health-is-an-executive-priority/?fbclid=IwAR3st__IK9W_OU8t9YCNgb75Ffdv5qQx8YkDr3WcSCthGHQxU7XDDEV18_8U#7d0045c65bb4) (18 March 2019)
- Stirzaker, S. (2017), "How A Healthy Workforce Can Boost Your Company's Profits", available at: <https://www.entrepreneur.com/article/303366> (22 October 2017)
- Szabó, Á. (2019), "A jól-lét hatása a vállalati eredményességre", Wellbeing Conference, Sárovar, Hungary, 21-22 November 2019
- Szabó, Á., Juhász P. (2019), "A munkahelyi egészségprogramok értékteremtésének mérési lehetőségei", *Vezetéstudomány*, Vol. 50 No. 2, pp. 59-71.
- TalentLyft (2018), "Employee Value Proposition (EVP): Magnet for Attracting Candidates", available at: <https://www.talentlyft.com/en/blog/article/105/employee-value-proposition-evp-magnet-for-attracting-candidates/> (27 February 2018)
- The Guardian (2016), "New study finds sitting down too much costs the world \$67.5bn", available at: <https://www.theguardian.com/lifeandstyle/2016/jul/30/sitting-down-too-much-health-costs-economy> (30 July 2016)

- The Guardian (2019), "Sitting down for too long may be causing 70,000 UK deaths a year", available at: <https://www.theguardian.com/society/2019/mar/26/long-sedentary-periods-are-bad-for-health-and-cost-nhs-700m-a-year> (26 March 2019)
- The Sleep Council (2013), "The Great British Bedtime Report", available at: <https://www.sleepcouncil.org.uk/wp-content/The-Great-British-Bedtime-Report.pdf> (1 October 2017)
- TMR(2018), "Corporate Wellness Market", available at: <https://www.transparencymarketresearch.com/corporate-wellness-market.html> (18 March 2019)
- University of Otago (2019), "Hidden cost of alcohol to workplaces estimated at \$1.65 billion", available at: <https://phys.org/news/2019-06-hidden-alcohol-workplaces-billion.html> (1 December 2019)
- Uzialko, A. (2019), "How Sleep Is Essential to Work and Productivity", available at: <https://www.businessnewsdaily.com/15059-sleep-and-productivity.html> (31 May 2019)
- Waldinger, R. (2019), "What makes a good life? Lessons from the longest study on happiness", available at: [https://www.ted.com/talks/robert\\_waldinger\\_what\\_makes\\_a\\_good\\_life\\_lessons\\_from\\_the\\_longest\\_study\\_on\\_happiness?language=en](https://www.ted.com/talks/robert_waldinger_what_makes_a_good_life_lessons_from_the_longest_study_on_happiness?language=en) (17 December 2019)
- Wellable (2019), "Employee Wellness Industry Trends Report", available at: <https://blog.wellable.co/2019-employee-wellness-industry-trends-report> (16 September 2019)
- Wellable (2020), "Employee Wellness Industry Trends Report", available at: <https://blog.wellable.co/2020-employee-wellness-industry-trends-report> (16 March 2020)
- WHO (1998), "Health Promotion Glossary", available at: <https://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf> (14 April 2012)
- WHO (2005), "Preventing Chronic Diseases: a vital investment", available at: [https://www.who.int/chp/chronic\\_disease\\_report/part1/en/index19.html](https://www.who.int/chp/chronic_disease_report/part1/en/index19.html) (14 April 2012)
- WHO (2011), "New physical activity recommendations for reducing disease and prevent deaths", available at: [https://www.who.int/chp/media/news/releases/2011\\_2\\_physicalactivity/en/](https://www.who.int/chp/media/news/releases/2011_2_physicalactivity/en/) (3 February, 2011)
- Willis Towers Watson (2016), "Employee Health and Business Success", available at: <https://www.willistowerswatson.com/en/insights/2016/03/stayingatwork-report-employee-health-and-business-success> (1 October 2017)
- Witters, D., Agrawal, S. (2015), "Well-Being Enhances Benefits of Employee Engagement", available at: <http://news.gallup.com/businessjournal/186386/enhances-benefits-employee-engagement.aspx> (27 October 2015)
- Wolf, A.M., Siadaty, M.S., Crowther, J.Q., Nadler, J.L., Wagner, D.L., Cavalieri, S.L., Elward, K.S., Bovbjerg, V.E. (2009), "Impact of Lifestyle Intervention on Lost Productivity and Disability: Improving Control with Activity and Nutrition (ICAN)", *Journal of Occupational and Environmental Medicine*, Vol. 51 No. 2, pp. 139–145., available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688905> (14 April 2012)
- Xerox (2016), "Working Well: A Global Survey of Workforce Wellbeing Strategies 2016 – Survey report", available at: [http://www.globalhealthyworkplace.org/casestudies/2016\\_Global\\_Wellbeing\\_Survey\\_Executive-Summary.pdf](http://www.globalhealthyworkplace.org/casestudies/2016_Global_Wellbeing_Survey_Executive-Summary.pdf) (26 March 2019)