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**Prevent Employees from burnout with Mindfulmanagement
and lead them to flourishing**

Introduction

COVID-19 and the Russian-Ukrainian War RUW-22 are some of the great challenges of current times. The consequences will impact psychological well-being and could have a harmful impact on mental health¹. The outbreak of coronavirus disease 2019 (COVID-19) in December 2019 in Wuhan City, China, quickly created a catastrophic situation worldwide. The United Nations considers this crisis one of the most traumatic or challenging events for human beings since World War II.

Additionally, the RUW-22, which began on February 24, 2022, has become one of the largest and fastest-growing humanitarian emergencies in the 21st century. Even though Ukrainians

¹ Barchielli, B. et al. *Climate Changes, Natural Resources Depletion, COVID-19 Pandemic, and Russian-Ukrainian War: What Is the Impact on Habits Change and Mental Health?* "Int J Environ Res Public Health" 2022, vol. 19: 11929.

are affected by the RUW-22 as first-hand responders to the ongoing crisis, the psychological impact of the war on neighboring populations, specifically in Central Europe, cannot be neglected². Over and above, there are still intensive challenges like globalization, digitalization, AI and societal transformations, which have impacted work areas dramatically in the last decades. Work processes have become far more complex and intense. Not only do they require a lot of flexibility, but also mobility from employees³. Levels of psychological distress, depression, anxiety, and sleeping difficulties during the COVID-19 pandemic period were significantly elevated⁴.

Therefore nowadays, the topic of psychological well-being (PWB) is widely analyzed around the globe as society looks to change for the better⁵. One indicator of well-being is the concept of work engagement, which has been defined by Schaufeli and Bakker (2010) as "...a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption"⁶. As exhibited Brown and Ryan, mindfulness plays significant role in psychological well-being. They explain that awareness achieved due to mindfulness practices enable employees to be aware of thoughts and feelings, without necessarily reacting upon them and encourages a "stepping back" or adopting of a witnessing stance and reduce the impact of potentially stressful situations⁷.

Previous research focused primarily on stress management, to a lesser extent professional burnout in mainly medical professions. A relatively small amount of research oscillated around using mindfulness in increasing employee wellbeing and management efficiency. Presented meta-analysis and pilot study aims to catch up on these backlogs and to provide a basis for further research on the use of mindfulness in the organizational area.

Material and Methods

² Riad, A. et al. *Mental Health Burden of the Russian–Ukrainian War 2022 (RUW-22): Anxiety and Depression Levels among Young Adults in Central Europe*. "Int J Environ Res Public Health" 2022, vol. 19: 6834.

³ Mack, O., Khare, A., Krämer, A., Burgartz, T. *Managing in a VUCA World*, Springer International Publishing 2016.

⁴ Al Ozairi, A. et al. *Effectiveness of virtual mindfulness-based interventions on perceived anxiety and depression of physicians during the COVID-19 pandemic: A pre-post experimental study*. "Front Psychiatry" 2023, nr. 13.

⁵ March, G. *Methods for Teaching Mindfulness Within the Workplace*. UNLV Theses, Dissertations, Professional Papers, and Capstones, 2022.

⁶ Ibidem.

⁷ Brown, K.W., Ryan, R.M. *The benefits of being present: Mindfulness and its role in psychological well-being*. "J Pers Soc Psychol" 2023, nr. 84, p. 822–848.

A literature search was conducted in the database of MEDLINE (PubMed) and Google Scholar and PsycINFO using a combination of keywords: “mindfulness and management,” “mindfulness in workplace,” “mindfulness in organizations,” “mindfulness and leadership,” “mindfulness and wellbeing,” “Industry 5.0,” “mindfulness and relationship,” “mindfulness and learning,” “mindfulness and memory,” “mindfulness and interoception,” “mindfulness and resilience,” “mindfulness and affect management” , “mindfulness and creativity”, “mindfulness and performance”, “mindfulness and work engagement”, “stoicism and management” , “mindfulness and flow”, “mindfulness and team work”. The initial search identified over 200,000 publications, which were then selected based on their titles and abstracts. Articles published in English and including a methodological background were considered for the study. After a qualitative text analysis, articles the focus was only on clinical case reports. These inclusion criteria and additional reviews of the references of the selected articles yielded 250 articles that were read and analyzed.

The next step was to perform initial qualitative content analysis. Based on the content analysis of the abstracts, the articles that were closer to answering the research questions were selected for further analysis. The authors performed content analysis by referring to the phenomenological content analysis method. The phenomenological method has been used in psychological research for years and it also applies to content analysis⁸.

Phenomenological content analysis was performed in five steps.

Step 1. Pre-reading to understand the whole.

Step 2. Adopting a phenomenological psychological stance.

Step 3. Dividing the data into meaningful units.

Step 4. Transforming colloquial speech into psychological meaning.

Step 5. Returning to the whole and moving to the overall structure⁹.

This method has enabled the identification of crucial and the most significant features and benefits of using mindfulness in management area.

Mindfulness in management

⁸ Zapala, J., Matecka, M., Zok, A. , Baum, E. *The needs of cancer patients duric the covid-19 pandemic – psychological, ethical and spiritual aspects – systemayic review*. “PeerJ” 2022 10(6): e13480.

⁹ Englander, M. , Morley, J. *Phenomenological psychology and qualitative research*. “Phenomenol Cogn Sci” 2023, nr. 22, p. 25–53.

Studies on mindfulness meditation in the organizational field was started in the early 2000s, when various studies have confirmed the salutary effects of mindfulness, and mindfulness research has kept growing exponentially, investigating various facets of mindfulness and its application in a wide variety of contexts¹⁰. However, scholars have not yet reached a consensus on a single, clear definition of mindfulness¹¹.

Mindfulness is commonly thought as the practice of attending to present moment experiences and allowing any emotions and thoughts to pass without judgement. It can involve activities such as focusing on specific physical sensations – for example breathing, which one observes as thoughts, emotions and bodily sensations rise up and then pass away. A newer, two-component model of mindfulness has also been put forward. This involves both the regulation of attention on immediate experience and also approaching experiences (regardless of what they are) with a mindset of curiosity, openness and acceptance¹². Mindfulness is also understood as a practice-trait and a state of mind.

Mindfulmanagement – wellbeing is a skill

Research on mindfulness at the workplace is very important for executive level operatives and organizations who can significantly benefit from it¹³. Therefore, we would like to introduce the cognitive and neurobehavior concept of CBI Mindfulmanagement, which consists of 3 key areas.

1. Value-driven leadership and mindful relationships.
2. Flexibility and emotional intelligence achieved by practicing mindfulness
3. Leaders' self-awareness, sensitivity to impact on employees' lives and their constant self-development.

¹⁰ Bunjak, A., Černe, M., Schölly, E.L., *Exploring the Past, Present, and Future of the Mindfulness Field: A Multitechnique Bibliometric Review*, "Front. Psychol." 2022, nr. 13.

¹¹ Bishop, S.R. et al. *Mindfulness: A proposed operational definition*, "Clin. Psychol. Sci. Pract." 2004, nr. 11, p. 230–241.

¹² Taylor, N.Z., Millea, P.M.R. *The contribution of mindfulness to predicting burnout in the workplace*. "Pers Individ Dif" 2016, nr. 89, p. 123–128.

¹³ Bunjak, A., op. cit.

Above areas are related to growth in emotional intelligence, empathy and compassion, which lead to value-driven management and employee flourishing.

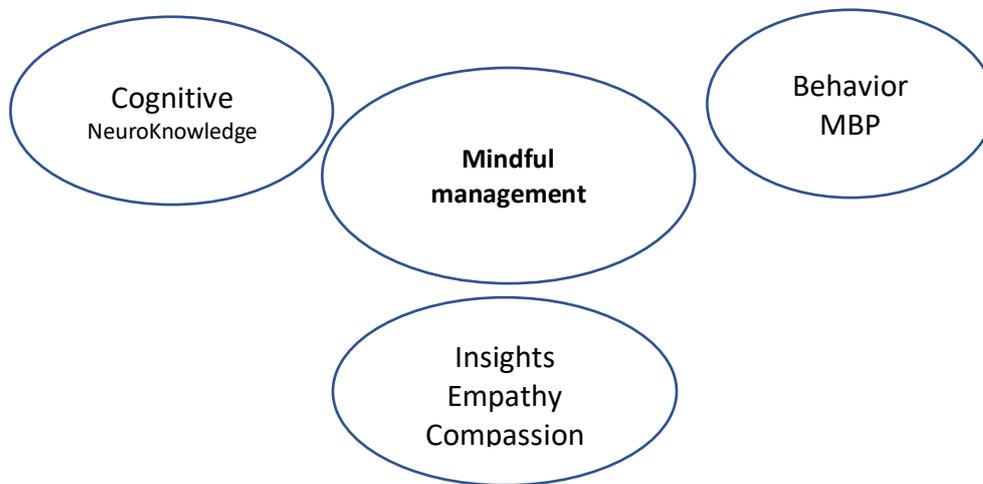


Fig. 1. CBI Mindfulmanagement concept (original model)

Opracowanie własne, Istotne jest by Cognitiv, Behavior, Insights i Mindfulmanagement były większą czcionką

- i informację czy jest to opracowanie własne?

Prawdopodobnie przygotujemy w programie graficznym schemat na nowo bardzo proszę o jednoznaczne określenie wielkości czcionki (co ma być większe a co mniejsze)

Analogously, as presented above, the Mindfulmanagement concept is based on 3 main elements:

C-Cognitive – knowledge of psychological mechanisms, patterns, schemas, brain and mind functioning – is a key element for the development of better understanding and compassion, as well as self-development. Knowledge, in our concept, is the fundamental and first element on which subsequent elements can be built through mindful practice. Neuroknowledge is also not without importance. It shows how mindfulness practice affects the development of individual areas of the brain and leads to its synchronization, which is the motivation for practice. The key is to have a psychological knowledge about the mechanisms affecting the behavior of the individual together with its mindful consideration in the group, which leads to further points – behavior change and better understanding.

B- Behavior – regular practice of self-reflection, mindfulness, meditation lead to finding balance in life.

Insights – Inner world discovering, self-acceptance and self-consciousness achieved through regular mindfulness practice.

It is worth to noting that this process can be understood both on micro and macro level of management and organization perceived as an entity.

Micro – individual practice of a leader and team members, which allows a flexible approach to work, individual members’ values recognition, value-driven leadership, wellbeing and cohesion on a rise as well as relationships in the team.

Macro – a conscious approach to organization and constant attention to changing situations, trends and its members’ needs. Organizational values identification enables the stability of the organization, despite changing conditions, adjusts its activities, services and products to meet current market expectations.

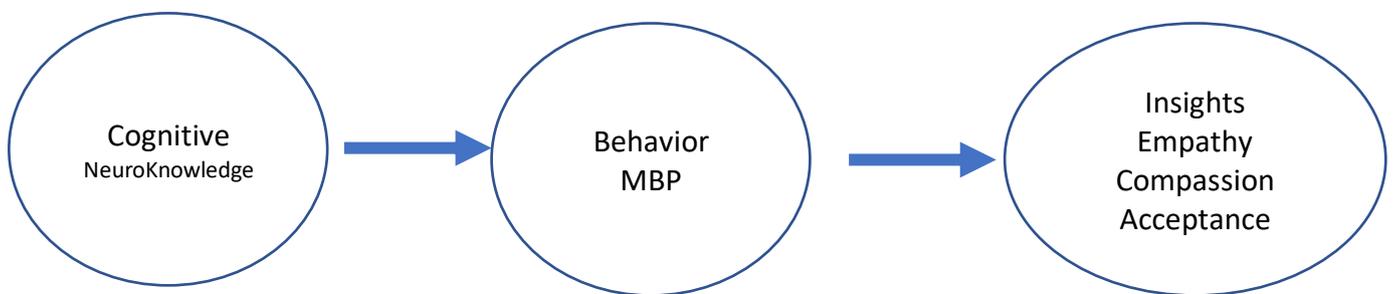


Fig. 2. CBI Mindfulmanagement flowchart (original model)

J.w. Opracowanie własne, Istotne jest by Cognitiv, Behavior, Insights i Mindfulmanagement były większą czcionką

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Our concept of mindfulmanagement is coherent with R. Davidson’s statement that wellbeing is a skill.

The mindfulmanagement is also understood as a use of full potential of the mind and management. It is a process for leaders and employees through which they are able to gradually discover their own strength, and abilities. Self-awareness achieved through the process enables understanding their weaknesses. Instead of fighting with them, they manage to accept them and find solutions so that they do not negatively impact their work and private lives. Moreover, mindfulmanagement supports in establishing full work-life balance and wellbeing due to its optimization process in all areas of life. It is understood as a holistic process

of discovering and self-realization improvement. It can also be understood as self-management. When a person understands themselves, they recognize all their strengths and weaknesses, schemas, and habits. This identification is the first step to managing them. It's a constant and permanent process. It is also strongly linked with knowledge – the cognitive part and behavior – regular practice. A person has to develop their knowledge about patterns, schemas and psychological mechanisms which take over the mind frequently. As stated J.Heidt we are like “a rider on an elephant”, so we have to learn about the elephant. It is parallelly cognitive and behavior process.

Mindfulmanagement – impact

The following table summarizes the crucial areas in management as well as collates and compares it with the recent studies on the impacts of mindfulness. Management aspects, which are considered essential, are reflected as key benefits of the practice. Accordingly, it is worth noting that the concept of Mindfulmanagement is introduced to indicate the significant and pivotal role of applying mindfulness in Work 4.0. and Industry 5.0.

Table 1. Core areas and mindfulness impact within the mindful management framework

Area	Impact of mindfulness
Self-awareness – “refers to one's conscious experience of the contents [of the mind].” ¹⁴ Brown et al. define awareness as “the conscious registration of stimuli, including the five physical senses, the kinesthetic senses, and the activities of the mind” ¹⁵ . To be aware means to do, feel, think, perceive, or sense something and know	For Brown et al. (2007) clear awareness of the internal and external world in the present moment is the first and foremost aspect of mindfulness ¹⁸ . Awareness and as outgrowth self-awareness is by researchers stated as fundamental aspect of mindfulness. Actually, mindfulness is defined by Baer (2003) as a heightened state of awareness and training the brain to accurately focus on the present moment to maintaining a nonjudgmental perspective. By training the mind like any other muscle, altering perspective and response stimuli would enable employees to have a more positive mindset and enhanced efficiency. With consistent practice towards present moment awareness, individuals can self-regulate their thoughts and intentionally shift attention from a negative aspect of an experience to another characteristic that provides a more positive perspective ¹⁹ . Moreover, Brown and Ryan (2003) consider that mindfulness helps people identify their needs, problems, and conflicts. While Tischler et al. (2002) presents that it is increasing self-actualization, stronger self-identity,

¹⁴ Brown, K.W., Ryan, R.M. , Creswell, J.D. op. cit.

¹⁵ Ibidem.

¹⁸ Brown, K.W., Ryan, R.M. , Creswell, J.D. op. cit.

¹⁹ Ibidem.

<p>(i.e., be aware) that one is doing so¹⁶. Awareness allows employees to be aware of their thoughts and feelings, without necessarily reacting upon them. Such awareness encourages a “stepping back” or adopting of a witnessing stance. Such a stance may help mindful employees to reduce the impact of potentially stressful situations. In contrast attempting to suppress such negative feelings, as compared to simply observing them, may further stress employees, which over time may result in emotional exhaustion¹⁷.</p>	<p>greater empathy, improved perception of others, and an increase of wisdom²⁰. With reference to organizational level scientist associate employee awareness and absent-mindedness with wellbeing at the workplace. Reduced wellbeing in the workplace is related with emotional exhaustion. While emotional exhaustion is considered as the central aspect of job burnout and is generally defined as depletion in emotional energy to an extent that people fail to meet job demands. It manifests itself as reluctance to go to work and, in extreme cases, a total dreading of work itself and is linked with lower job performance²¹. Moreover, as showed the studies employee awareness and absent-mindedness might also be related to employee performance – it has been found that mind wandering reduces task performance. Absent-mindedness is noteworthy and fairly common experience of (lack of) mindfulness. When the mind is absent, one performs the task on autopilot or not at all, for example, because the mind wanders or goes entirely blank. It is worth to note that absent-mindedness is conceptually not the direct opposite of awareness as it implies both lack of awareness and lack of attention. In other words, one may lack awareness even while paying attention. For example, one may pay attention to a movie, but not be aware that one is doing so²². Furthermore, absent-mindedness may lead to a more reactive, rather than reflective, response to challenging situations, further exacerbating the problem²³. In contrary awareness enables individuals to be more receptive to developments in their environments, allowing them to respond more effectively to challenging and changing situations. Moreover, Beal et al. (2005) indicate that affective processes, such as rumination and arousal, take attentional resources away from the task at hand, thus negatively influencing performance. Whereas awareness helps to focus on the goal. Studies also suggest that mindfulness may facilitate the implementation of intentions into action – the more mindful employees, the better achieve intended work-related goals. Parallel self-awareness leads to various important aspects of development. Awareness can be defined as a chain to permanent self-development. Self-reflection supports to detect personal bias, evaluate, and correct oneself. It reduces mistakes and helps professionals in their search for the best decisions. Self-reflection and self-evaluation are valued across all the sectors, professional fields, and specialties, not only because it enables one to come up with the right professional decision, but also because of its overall educative aspect. It challenges the ‘taken-for-granted’ opinions, previous beliefs, and inspires one to learn from</p>
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¹⁶ March, G. *Methods for Teaching Mindfulness Within the Workplace*. UNLV Theses, Dissertations, Professional Papers, and Capstones, 2022.

¹⁷ Petchsawang, P. , McLean, G.N. op. cit.

²⁰ Petchsawang, P. , McLean, G.N. *Workplace spirituality, mindfulness meditation, and work engagement*. “Journal of Management, Spirituality and Religion” 2017, nr. 14, p. 216–244.

²¹ Reb, J., Narayanan, J. , Ho, Z.W. *Mindfulness at Work: Antecedents and Consequences of Employee Awareness and Absent-mindedness*. “Mindfulness (N Y)” 2015, nr. 6, p. 111–122.

²² Reb, J., Narayanan, J. , Ho, Z.W. op. cit.

²³ Petchsawang, P. , McLean, G.N. op. cit.

	<p>others. It enables to be in a constant process of analysis of weaknesses and strengths, what creates an adequate relationship with oneself, the others, and the world. Self-reflection is neither an innate nor an easily acquired capacity. I can be related with the cultivation of self-awareness – knowing what one wants to achieve, is capable of, and the knowledge of personal limits. It can be said that self-regulation goes hand in hand with open-mindedness – respecting diverse opinions and points of views, considering different experiences²⁴. Awareness and self-reflection are also linked with critical thinking.</p>
<p>Critical Thinking- is treated as an integral part of the core global competencies needed to live successful future lives (OECD 2018). It is anchored in interdependent cognitive skills (e.g. self-regulation, evaluation, interpretation) and disposition elements (e.g. analyticity, systematicity, open-mindedness) allowing professionals to anticipate and be prepared for any situation, as well as to regulate and monitor their own thinking and behavior in such a process²⁵.</p>	<p>Mindfulness meditation requires individuals to be open to perception and acceptance of any sensory and external stimuli, and this tolerance and acceptance can promote divergent thinking²⁶. It promotes and helps to develop critical thinking. It can be concluded that critical thinking expanding from self-awareness which is based in mindfulness activities. This self-awareness and self-reflection which is natural effect of mindfulness helps to detect personal bias, evaluate, and correct oneself. It decreases mistakes and supports professionals in their search for the best decisions²⁷.</p> <p>As Halpern (2001) concludes “virtually every business or industry position that involves responsibility and action in the face of uncertainty would benefit if the people filling that position obtained a higher level of the ability to think critically (...) Critical thinking skills offer the greatest chance of success for creating and adjusting to change”²⁸. Critical thinking is pivotal both for professional and organizational efficacy, and for personal improvement and common good. It is crucial in directing professionals both to the desired outcome and in attending to people’s needs and expectations, considering various ethical and social concerns, contributing in this way to a better future and quality of life. It is linked with social responsibility and integrating the professionals’ personal and interpersonal dimensions²⁹. Especially in current – constantly changing situation – it is fundamental attitude and helps to establish one’ life meaning.</p>
<p>Life Meaning- is central to human existence, as showed Frankl, Singer and indeed biosemiotics would assert, meaning making is fundamental feature of all living</p>	<p>Mindfulness is strongly linked also with life meaning. Garland and Fredrickson introduced Mindfulness-to-Meaning Theory (MMT) a process of positive emotional regulation through cognitive appraisals and enhancing interoceptive attention. They suggest that is a dynamic model of mindful positive emotion regulation that elucidates downstream cognitive-affective mechanisms by which mindfulness promotes health and resilience to stressful situations³¹. In this sense</p>

²⁴ Penkauskienė, D., Railienė, A. , Cruz, G. *How is critical thinking valued by the labour market? Employer perspectives from different European countries.* “Stud. High. Educ.” 2019, nr. 44, p. 804–815.

²⁵ Ibidem.

²⁶ Chen, H. et al. *The Effect of Animation-Guided Mindfulness Meditation on the Promotion of Creativity, Flow and Affect.* “Front Psychol” 2022, nr. 13.

²⁷ Penkauskienė, D., Railienė, A. , Cruz, G. op. cit.

²⁸ Ibidem.

²⁹ Ibidem.

³¹ Garland, E.L. , Fredrickson, B.L. *RUNNING HEAD: Extending the Mindfulness-to-Meaning Theory Positive Psychological States in the Arc from Mindfulness to Self-Transcendence: Extensions*

systems. Although we experience the same primordial drives toward approach and avoidance as do all invertebrates, and the same basic emotional states of joy, love, contentment, disgust, anger, and fear as our mammalian ancestors, the human capacity for constructing experiential meaning through cognitive appraisal creates a multifarious and ever-shifting palette of moods and affect. We derive our uniquely human emotional experience from the basic emotions through the processes of cognitive appraisal, whose conceptual contents form the bases of personal narratives that we use to make sense of our place in the world³⁰.

exercising positive emotional regulation is expected to promote metacognitive awareness, enhance attention capabilities through emotion-regulation strategies, and decrease disengagement³². The MMT encompasses two key hypotheses: (a) mindfulness generates meaning by promoting reappraisal (the mindful reappraisal hypothesis), and (b) mindfulness generates meaning by promoting savoring (the mindful savoring hypothesis)³³. Mindfulness meditation in MMT supports to disengage from extant schema into a metacognitive state of awareness in which attention expands to encompass previously unattended data from which new cognitive structures can be constructed. A positive reappraisal is but one of the many types of cognitive structures that may be engendered by mindfulness practice. In this context, mindfulness enables to gain insight into the nature of existence, leads to such ontological or metaphysical reappraisals as everything is impermanent, life is suffering, and the self is empty of independent existence. This kind of insights might lead to a transient state of fear or unease by radically reframing of the ontology of the self, thereby producing anxiety in the short term, but in the long term and with the mindful state of mind to more profound meaning and freedom³⁴. Spiral process of MMT can be understood as context and attention depended on and presents as following. Attention is a “spotlight”, that brings certain experiential relations into focus by inhibiting the representation of others. As a result of this process, depending on how individuals attend to the components of their experience, different phenomenological realities are constructed; the way we punctuate and organize the influx of information constitutes our lived experience of reality. From this perspective, there is no inherent meaning in the details of experience outside of the contexts in which they are observed, and therefore meaning is malleable and subject to contextual change induced via attention—an active and intentional process of consciousness “making sense of the world by acting on it”³⁵. It is a full circle to the MMT: Mindfulness facilitates flexible attentional selection of previously unattended contextual information, promoting the ability to see alternate perspectives and thereby fluidly reconstruct meaning from the encounter with life. Recent research confirmed assumptions that mindfulness should facilitate perspective shifting and attentional stabilization on alternative views of multi-stable figures. Cross-sectional study conducted by Sgherza et al. (2022) on assessing MTMT characteristics such as reappraisal, decentering, and well-being with the use of a multilevel structural equation modeling system presented that

of the Mindfulness-to-Meaning Theory and Applications to Addiction and Chronic Pain Treatment, 2019.

³⁰ Garland, E.L., Farb, N.A., Goldin, P.R. et al., op. cit.

³² March, G. op. cit.

³³ Garland, E.L., Farb, N.A., Goldin, P. R. et al., *The Mindfulness-to-Meaning Theory: Extensions, Applications, and Challenges at the Attention–Appraisal–Emotion Interface*. “Psychol. Inq.” 2015, nr. 26, p. 377–387.

³⁴ Ibidem.

³⁵ Ibidem.

	<p>dispositional mindfulness was linked to increased reappraisal and savoring of positive experience. In addition, it was noted that the effects between well-being, savoring, positive affect, and decentering were in support of the upward spiral process³⁶.</p>
<p>Stoic – Negative Capability – can be understood as pure awareness. It implies the capacity to accommodate change in a non-defensive way, without being overwhelmed by the ever present pressure to react.</p>	<p>Stoic discipline and mindfulness include many common fields. Among them can be found negative capability what indicates pure awareness, self-awareness and being in a receptive state of being. Mindfulness supports leaders to negative capability, what means just ‘be’ in a situation, to be intentionally receptive, without trying to answer, explain or solve.</p> <p>It is worth to note that leaders must practice a constant self-reflective vigilance to review the present-moment impact of events, to adapt, shift and adjust as necessary. It can be identified with open-monitoring practice of mindfulness³⁷. From this perspective leadership involves seeing at every point, day by day, moment by moment, what is actually going on, in contrast with what was planned for, expected or intended. For decision-makers, it can be very difficult to access since it interrupts the human tendency to immediately respond to a situation by making an unconsidered or automatic move. It is concerned with developing the capacity to tolerate the discomfort of stillness until the proper move presents itself. This discipline is crucially related to the discipline of judgement since one’s representations—thoughts, ideas, conclusions—preside over one’s actions (Marcus Aurelius, 2003: 157).</p> <p>The Stoic discipline of judgement enables leaders to tolerate the frightening reality of not knowing by actively letting go of concerns about past and future, external events they cannot control, and the actions and opinions of others. Instead, they direct their attention to examining their own thoughts (Marcus Aurelius, 2003: 32).</p> <p>Accordingly, tolerating stillness and controlling one’s actions begins with examining how one responds to others. Reservation, or stillness, interrupts the impulse to act. By gaining a broad perspective, leaders can avoid becoming trapped in historical or ongoing patterns³⁸.</p> <p>Hadot states that the Stoic exercises are fundamentally transformative, offering existential as well as moral value, and “metamorphosis of our being”. They encourage one to be fully aware of a situation without flight into thought, action, or emotion. Rather, the principles promote a practice of constant awareness of habitual thinking, feeling, doing and to respite before responding with judgement, action, or desire³⁹. It is very congenial to mindful awareness and in this way, Stoicism develops a practice that draws upon Negative Capability, capable of being in radical uncertainty “without any irritable reaching after fact and reason”²³.</p>

³⁶ March, G. op. cit.

³⁷ Lomas, T. et al. *The impact of mindfulness on well-being and performance in the workplace: an inclusive systematic review of the empirical literature.* Eur. J. Work Organ. Psychol. 2017, nr. 26, p. 492–513.

³⁸ Hirsch, C., von Bülow, C., Simpson, P. *Stoicism, philosophy as a way of life and Negative Capability: Developing a capacity for working in radical uncertainty.* Leadership 2023, nr. 19, p. 393–412.

³⁹ Penkauskienė, D., Railienė, A., Cruz, G. op. cit.

<p>Health benefits</p>	<p>There is a vast number of scientific evidence that exhibits the crucial role of mindfulness in health due its influence on relaxation response and stress reduction. Already Benson and previous studies proved that through epigenetic changes, beneficial genes had become more active in the meditators, cellular mitochondria became more efficient, insulin production was boosted, and the NF-kappaB master gene was less active, thus reducing inflammation, blood pressure, heart disease, bowel disease, and cancer⁴⁰. Recent functional MRI imaging studies demonstrated that individual disposition toward mindfulness is associated with extensive prefrontal cortical activation and diminished bilateral amygdala activity indicating thoughtful response patterns rather than hyperemotional reaction to life events. Both effects are associated with more controlled regulation of inflammation via the hypothalamic-pituitary-adrenal axis, the autonomic nervous system and immune system⁴¹. That’s why commonly, mindfulness as a health-promoting approach is understood through the stress response. Mental practice of mindfulness, allowing one to face stressful situations in a healthier way instead of surrendering to a stressor in a “reactive” way. Mindfulness-based stress reduction, a famous applied behavioral intervention in many therapeutic and professional settings, is based on the practice of mindfulness as the central therapeutic principle. The core element of this program’s mindfulness practice are the seven basic attitudes that are consciously developed and trained during meditation: 1. nonjudgment, 2. patience, 3. stilling the beginner's mind, 4. trust, 5. non-grasping, 6. acceptance, and 7. letting go. Mindfulness-informed approaches utilize other forms of therapy aside from mindfulness-based approaches. While mindfulness-based programs focus on learning and improving mindfulness primarily through formal mental exercises, mindfulness-informed programs focus on promoting relaxation, acceptance, or communication by encouraging informal mindfulness, e.g., through physical exercises such as yoga asanas. One of such mindfulness-informed approach is called BERN concept (Mind-body medical stress reduction): stress-reducing behavior (behavior), sufficient movement (exercise), regular inner reflection and relaxation (relaxation), and mindful enjoyment of healthy nutrition (nutrition)⁴². Beyond the intrapersonal perspective, collective mindfulness, i.e., the increase in mindfulness among a group of individuals such as colleagues, can bring about societal benefits by allowing for a transition from an “ego-system” to a collaborative “eco-system”⁴³. The above presents only a substitute for scientific evidence showing the positive effect of mindfulness on health, however, this article only</p>
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⁴⁰ Valone, T. *Modern Meditation Training: An Innovative Technique to Increase Employee Learning , Achievement*, 2017.

⁴¹ Good, D.J. et al. *Contemplating Mindfulness at Work: An Integrative Review.*” J Manage” 2016, nr. 42, p. 114–142

⁴² Esch, T. *Der Nutzen von Selbstheilungspotenzialen in der professionellen Gesundheitsfürsorge am Beispiel der Mind-Body-Medizin.* “Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz” 2020, nr. 63, p. 577–585.

⁴³ Wrede, S.J.S., Esch, T. , Michaelsen, M.M. *Mindfulness in the Digital Workplace: an explorative study of the compatibility of mindfulness and technology*, 2023.

	<p>indicates the area. There is a permanent growing wealth of studies and evidence what could be presented, although it is not a main topic of this article.</p>
<p>Attention – is said that it is a currency as it can determine future behavior as whatever a person may pay attention can impact thoughts, feelings, desires, and perspectives at a subconscious level. What one pays attention, changes the way that the brain flows. In specific, it is not what one pays attention to, but also how they pay attention⁴⁴.</p>	<p>Attention is the crucial feature of mindfulness by which it primarily affects human functioning. There are three facets which are identified in relation to mindfulness, namely attention stability, attention control, and attention efficiency⁴⁵. Various studies show that mindfulness improves all three qualities of attention.</p> <p>Attention stability reduces mind-wandering, and increases present moment focus with sustained attention. As studies exhibited dispositional mindfulness and mindfulness training ranging from a few to thousands of hours, have been linked with reduced mind wandering. Individuals who completed mindfulness training were able to remain vigilant longer on both visual and audio (listening) tasks. Experienced meditators also exhibit reduced activation in the neural network indicative of mind wandering and brain activity patterns consistent with sustained attention. It is suggested that stabilization of attention in the present and increased attentional stability may stem from noticing mind wandering and returning to present-moment focus.</p> <p>Attentional control refers to appropriately directing attention amid competing demands. Studies have shown that mindfulness supports attentional control by reducing habitual allocation of attention and reducing attention to distracting information. There is also neurological evidence which present that brain wave activity among long-term meditators shows more effective identification of and disengagement from distractions.</p> <p>Attentional efficiency is achieved by allocating greater attentional resources to process the appropriate targets, and a few attentional resources to process unnecessary targets. This attentional process results in cognitive, emotional, behavioral, and physiological outcomes. When mindfulness increases attentional control and lessens attention to off-task thoughts or activities, attention becomes more efficient. Research shows that meditators spend fewer attentional resources processing distractions and do not overinvest attention to an initial stimulus, which enables faster detection of subsequent stimuli. Expert meditators report that attention takes less effort and fMRI scans show that they use fewer resources in brain areas linked to executive attention.</p> <p>It is worth also to mention that these qualities of attention are suggesting influencing cognitive, emotional, behavioral, and physiological domains of functioning⁴⁶.</p>
<p>Creativity – there are various aspects and</p>	<p>So-called ‘standard definition’ of creativity, as presents for example by Runco (2014) recognizes it as the ability to develop novel and effective</p>

⁴⁴ Wimmer, L., Bellingrath, S. , von Stockhausen, L. *Mindfulness Training for Improving Attention Regulation in University Students: Is It Effective? and Do Yoga and Homework Matter?* “Front Psychol 11” 2020.

⁴⁵ Panditharathne, P.N.K.W. , Chen, Z. *An Integrative Review on the Research Progress of Mindfulness and Its Implications at the Workplace.* “Sustainability” 2021, nr. 13.

⁴⁶ Good, D.J. et al. op. cit.

<p>definitions of creativity. In this era of encouraging innovation, people craving to find a simple way to increase creativity⁴⁷. Creativity contains the ability to create, to generate new and unknown ideas or products, to invent or express imagination and intelligence, and to inspire the power of imagination and invention⁴⁸. The definition of creativity varies, but most scholars agree that creativity is linked with three key thinking abilities: divergent thinking, distant association and insight⁴⁹.</p>	<p>ideas, artifacts, or solutions. However, as exhibits Henriksen, Creely and Henderson (2019) there are also many research definitions, and they do not embody the diversity and divergence of ways that creativity has been defined across a range of practices, disciplines and traditions. Creativity should be considered as a complex area of research and practice, yet as underline Mehta, Creely and Henriksen (2020) neoliberal perspectives have often driven educational discourse on creativity, emphasizing instrumentalist and societal drive toward innovation. Henriksen, Richardson and Shack (2020) indicate that significant is also that creativity is a way of being in the world with substantive value for human-centered wellbeing and expression. They additionally emphasize relationship of mindfulness and creativity⁵⁰. Many studies exhibited this connection. The study of above-mentioned Henriksen et al. (2020) present an important positive correlation between the level of mindfulness and the score of creative expression. The studies from Byrne and Thatchenkery (2019) presented that mindfulness interventions improve employees' creative ability⁵¹. Parallel, Ngo et al. (2020) established that the correlation between mindfulness and job performance is mediated by creative process engagement and employee creativity, respectively. They pointed out that employees with higher mindfulness, view the problems with deeper understanding, higher clarity, less noise, and less disconnection for the creative process than the superficial understanding by less mindful employees⁵². Studies showed also that mindfulness helps creativity by buffering the effect of role conflict, role ambiguity, time pressure, and unconscious unethical behavior⁵³. Additionally, research by Richard et al. (2017) investigated the relationship between mindfulness and insight, which is an important component of creative thinking. The mindfulness-creativity study of Ostafin and Kassman (2012) exhibited that the resolution rate of insight problems in the mindfulness training group was substantially higher than that in the sham training group and the control group, but there was no difference between the sham training group and the control group,</p>
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⁴⁷ Sternberg, R. J., Todhunter, R.J.E., Litvak, A. et al. *The Relation of Scientific Creativity and Evaluation of Scientific Impact to Scientific Reasoning and General Intelligence*. "J Intell" 2020, nr. 8, (17).

⁴⁸ El-Murad, J., West, D.C. *The Definition and Measurement of Creativity: What Do We Know?* "J Advert Res" 2004, nr. 44, s.188–201.

⁴⁹ Dietrich, A., Kanso, R. *A review of EEG, ERP, and neuroimaging studies of creativity and insight*. "Psychol Bull" 2010, nr. 136, p. 822–848.

Chen, H. et al. *The Effect of Animation-Guided Mindfulness Meditation on the Promotion of Creativity, Flow and Affect*. "Front Psychol" 2022, nr. 13.

⁵⁰ Henriksen, D., Richardson, C. , Shack, K. *Mindfulness and creativity: Implications for thinking and learning*. "Think Skills Creat" 2020, nr. 37.

⁵¹ Shahbaz, W., Parker, J. *Workplace mindfulness: An integrative review of antecedents, mediators, and moderators*. "Hum. Resour. Manag. Rev." 2022, nr. 32.

⁵² Ngo, L.V., Nguyen, N.P., Lee ("Jiyeon"), J. , Andonopoulos, V. *Mindfulness and Job Performance: Does Creativity Matter?* "Australasian Marketing Journal" 2020, nr. 28, p.117–123.

⁵³ Panditharathne, P.N.K.W. , Chen, Z. *An Integrative Review on the Research Progress of Mindfulness and Its Implications at the Workplace*. "Sustainability" 2021, nr. 13.

proving that mindfulness can improve creativity rather than the placebo effect⁵⁴. Subsequently, studies conducted by Tan et al. (2021) exhibited that the level of mindfulness was positively correlated with the problem-solving rate of insight problems, but not with the problem-solving rate of non-insight reasoning problems. Furthermore, the positive correlation between mindfulness and insight remained after controlling for positive emotions and mindful manipulation, suggesting that the relationship between mindfulness and insight was not affected by positive emotions. The results also showed that participants in the mindful group achieved significantly better results on insight questions than the control group. Whereas there was no substantial difference between the two groups on non-insight questions, which provides significant support for a positive correlation between mindfulness and creativity⁵⁵. The above results indicate a direct positive correlation between mindfulness and creativity and shows that mindfulness training may increase creativity. People with a higher trait mindfulness, and those who undergo mindfulness training achieved better results in solving insight problems, potentially due to the change of mind concepts hindered by habitual reactions originating from prior experiences⁵⁶.

Studies of Ovington et al. (2018) also exhibited that mindfulness has not only directly impact on creativity, but also indirectly affects creativity through the two dimensions of emotion. When individuals have a high level of mindfulness, they can focus on their present internal experience without evaluation and are more able to generate PA and maintain happiness, thus actively are open to accepting more new things and generating more new ideas. On the contrary as showed Henriksen et al. (2020) individuals with low level of mindfulness have difficulties to identify emotional changes and adjust them. Additionally, during negative emotional state, their creativity is negatively affected⁵⁷. Analogously, as presented by Panditharathne and Chen, technological mindfulness increases creative thinking, reflective thinking, high visualization, job satisfaction, employee engagement, and higher performance. Additionally, technological mindfulness insulates the effect of organizational stressors on the innovative use of enterprise systems. Supplementarily, mindfulness may mitigate techno-stressors and job burnout. Higher mindfulness level is linked with increasing of clear understanding and decreasing of disturbances for creativity improvement through reducing habitual reactions and attentional gaps. Thus, mindfulness trainings are beneficial in responding to the forces affecting sustainable competitive advantage in the business world⁵⁸.

⁵⁴ Ostafin, B.D. , Kassman, K.T. *Stepping out of history: Mindfulness improves insight problem solving*. “Conscious Cogn” 2012, nr. 21, p. 1031–1036.

⁵⁵ Chen, H. et al. *The Effect of Animation-Guided Mindfulness Meditation on the Promotion of Creativity, Flow and Affect*. “Front Psychol” 2022, nr. 13.

⁵⁶ Panditharathne, P.N.K.W. , Chen, Z. op. cit.

⁵⁷ Chen, H. et al. op. cit.

Henriksen, D., Richardson, C. , Shack, K. *Mindfulness and creativity: Implications for thinking and learning*. “Think Skills Creat” 2020, nr. 37.

⁵⁸ Panditharathne, P.N.K.W. , Chen, Z. op. cit.

	It is worth mentioning that studies suggest that even short-term mind–body conditioning training may increase the cognitive neural mechanisms of creativity ⁵⁹ .
<p>Flow – is a state of ecstasy when the attention is highly focused on the task at hand. In flow state, creativity is more easily stimulated (Cseh, 2016)⁶⁰.</p>	<p>Flow, by the author of the term – M. Csikszentmihalyi, is described as “...being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one, like playing jazz. Your whole being is involved, and you’re using your skills to the utmost.”⁶¹. It is considered as one of life’s highly enjoyable states of being, wrapping one’s entirely in the present, and helping be more creative, productive, and happy⁶². It is remarkably well described state in field of management literature and positive psychology, and as various studies exhibit, it improves creativity and engagement, assist the leader in successfully managing high job demands and achieving increases in long-term job control⁶³. Flow is strongly linked with creativity and as Csikszentmihalyi arguing, it is an important precursor to high levels of creativity and innovation. It is also worth to noting that this peak experience of high immersion in the task at hand, is easier to achieve when the challenge of the task matches the individual’s skill set⁶⁴. Similarly, studies of Kounios and Beeman (2014) presented that flow is strongly linked with creative thinking processes such as insight, which often occur in the process of reorganizing problem situational information. This process usually requires remote connection of thinking information, and all these processes require higher attention of individuals. As stated, Yang et al. (2019) when consciousness and spirit are highly focused, the phenomenon of insight is more likely to occur, thus stimulating and promoting creativity⁶⁵. Accordingly, flow is oftentimes also strong linked with mindfulness. Actually, as numerous scholars stated, mindfulness may be effective basis for the flow experience. There are also particular similarities between mindfulness and flow – both underline focus on the present moment. Norsworthy et al. (2017) establish that flow state requires unconscious attention to certain tasks in the present moment. Several scholars have indicated that being present is an effective strategy for achieving flow. Due to mindfulness supports maintain awareness of the present moment, therefore can be the great foundation of flow ⁶⁶. It is additionally worth to note that both mindfulness and flow may significantly increase PA (positive affect), and PA may improve cognitive flexibility and the ability of long-distance association, thus promoting creativity. Accordingly, flow and PA may play a specific mediating effect on the influence of mindfulness on creativity. The</p>

⁵⁹ Chen, H. et al. op. cit.

⁶⁰ Ibidem.

⁶¹ Csikszentmihalyi, M. *Flow: The Psychology of Optimal Experience*, 1990.

⁶² <https://positivepsychology.com/what-is-flow/> (access: 12.09.2023).

⁶³ Lovelace, K.J., Manz, C.C. , Alves, J.C. *Work stress and leadership development: The role of self-leadership, shared leadership, physical fitness and flow in managing demands and increasing job control.* *Hum. Resour. Manag. Rev.* 2007, nr. 17, p. 374–387.

⁶⁴ Chen, H. et al. op. cit.

⁶⁵ Ibidem.

⁶⁶ Ibidem.

	<p>studies show that creativity is more easily stimulated in flow state. Schutte and Malouff, (2020) presented that both flow and mindfulness are significant concepts in positive psychology that have been proved to play a positive role in stimulating and promoting creativity. Due to higher focus during flow, the phenomenon of insight is more likely to occur, what then stimulating and promoting creativity⁶⁷. Moreover, creative thinking processes such as insight frequently arise in the process of reorganizing problem situational information, which usually involves remote connection of thinking information, and all these processes demand higher attention of individuals.</p> <p>Additionally, as research demonstrated, both mindfulness and flow exhibit strong emotional regulation effects, significantly enhancing PA and reducing negative affect (NA). Various studies have been conducted on the relationship between emotional states and creativity. It is found that PA enhance the thinking space and cognitive scope of individuals in a short time, increase the flexibility of individual thinking, and facilitate the improvement of creativity. On the contrary NA limits individual's cognitive range and thinking space.</p> <p>Summarizing both mindfulness and flow have been proven to have strong emotional regulation effects, significantly enhancing positive affect (PA) and reducing negative affect (NA)⁶⁸.</p>
<p>Positive Affect – as recent studies exhibit (West and Fredrickson, 2020) it expands the thinking space and cognitive scope of individuals in a short time, enhances the flexibility of individual thinking, and facilitates the improvement of creativity ⁶⁹.</p>	<p>According to the Broaden-and-Build Theory positive affect (PA) feels good and builds psychological, social, and biological resources⁷⁰.</p> <p>As various studies exhibited (e.g. Seligman, West and Fredrickson, 2020; de Rooij and Vromans, 2020) PA extends the thinking scope and cognitive abilities of individuals in a short time. It also promotes the cognitive flexibility of individuals, improves the speed of information processing, increases the cognitive fluency and response level, and promotes the improvement of creativity. Neurophysiological studies (e.g. Parke et al., 2015; Mooer et al. 2018) exhibit that PA can boost the secretion of dopamine. While dopamine released by the anterior cingulate cortex can regulate and increase the cognitive fluency, cognitive reorganization, process focusing and information integration of the brain, thus stimulating a higher level of creativity. The results presented that the visual cortex of the brain can process more information when the subjects are in a positive mood, but when subjects were in a bad mood, their ability to acquire information was significantly limited⁷¹.</p> <p>Accordingly, recent studies of Dan (2021) presented that, individuals with higher PA levels report greater cognitive flexibility, which facilitates them to accept different cognitive elements and link them to</p>

⁶⁷ Ibidem.

⁶⁸ Liu, X.-Y., Kwan, H.K., Zhang, X. *Introverts maintain creativity: A resource depletion model of negative workplace gossip.* "Asia Pac. J. Manag." 2020, nr. 37, p. 325–344.

⁶⁹ Chen, H. et al. op. cit.

Garland, E.L., Farb, N.A., Goldin, P.R., Fredrickson, B.L. op. cit.

⁷⁰ Van Cappellen, P., Edwards, M.E., Fredrickson, B.L. *Upward spirals of positive emotions and religious behaviors.* "Curr Opin Psychol" 2021, nr. 40, p. 92–98.

⁷¹ Taylor, N. Z., Millea, P. M. R. *The contribution of mindfulness to predicting burnout in the workplace.* "Pers Individ Dif" 2016, nr. 89, p. 123–128.

discover creative solutions⁷². In studies of Hensley (2020) PA has related to improving of cognitive flexibility and promoting creativity by creating more diverse connections between perception and thought⁷³. It is established that PA enhances individuals to think more flexibly and generate novel ideas. Tavares (2016) presented that highly creative individuals are more emotionally stable and have higher energy levels, in general. Numerous studies have shown that PA extends attention span and facilitates the formation of distant associations⁷⁴. Therefore, several scholars indicated that PA may improve the ability to switch between global attention mode and local attention mode and the capability to choose between different perspectives⁷⁵. Moreover, Benedek et al. (2014) established that PA can boost creative problem-solving. It is worth to outline the studies of Baron and Tang (2011) conducted on the relationship between emotion and creativity with using emotional heuristics and conceptual categorization task execution. The outcomes indicate that the experiment-induced active association made the subjects generate more concept categories in the concept classification task, and the active association also made the subjects generate more unusual associations for neutral words.

Conversely, numerous studies presented (e.g. He et al., 2020; Liu et al., 2020; Leung et al., 2021; Davis et al. 2017) that negative affect (NA) narrows an individual's attention, confining it to narrow details, reducing cognitive flexibility and expansibility, and thus inhibiting an individual's creative potential. Chen and Hou (2016) investigated the relationship between creativity and emotion and noticed that creativity was negatively linked with NA. Studies found that negative emotions, like depression and anxiety, can get in the way of creative problem-solving. Due to NA limiting people's attention and ossifying their responses it reduces the possibility of creative problem-solving. Similarly, Davis et al. (2017) pointed that excessive anxiety hinder the generation of new and innovative ideas⁷⁶.

It is also worth pointing out that there are individual differences in a person's ability or enthusiasm to maintain a mindful state. Chiesa and Serretti (2009) termed this ability or enthusiasm as dispositional mindfulness, and it has been found to act as a positive personal trait that bolsters mental health. As presented studies of Harrington, Loggredo and Perz (2014) at 184 university students, dispositional mindfulness co-relate with psychological wellbeing⁷⁷. Mindfulness, as indicates mentioned above numerous studies, reduces NA and improves PA.

⁷² Dan, Y. *Examining the relationships between learning interest, flow, and creativity*. "Sch Psychol Int" 2021, nr. 42, p.157–169.

⁷³ Hensley, N. *Educating for sustainable development: Cultivating creativity through mindfulness* "J Clean Prod" 2020, nr. 243.

⁷⁴ Chen, H. et al. op. cit.

⁷⁵ Taylor, N.Z. , Millear, P.M.R. op. cit.

⁷⁶ Chen, H. et al. op. cit.

⁷⁷ Taylor, N.Z. , Millear, P.M.R. *The contribution of mindfulness to predicting burnout in the workplace*. "Pers Individ Dif" 2016, nr. 89, p. 123–128.

	<p>According also to systems theory of second-order cybernetics⁷⁸ and the broaden-and-build theory of positive emotions ⁷⁹ mindfulness is a central mechanism for energizing upward spirals of positive psychological processes. Due to the fact, as point Fredrickson and Garland (2019), that mindfulness leads to de-automatization, decentering, attention regulation, and perspective-shifting functions, it evokes the system perturbation needed to inhibit habitual cognitive schemas and extend awareness to contain an expanded set of contextual data from which new, adaptive evaluations of self and world can be constructed. Induced by mindfulness PA improves this broadening and tune attention towards previously unattended positive information. Moreover, mindfulness can be a source of psychological growth by reconfigure cognitive structures within working memory and thereby facilitating reevaluating of adversity (it integrates an amplified array of positive and negative contextual traits within the extended scope of awareness)⁸⁰.</p>
<p>Psychological growth – Flourishing</p>	<p>Flourishing relates to psychosocial functioning, which is achieved by meeting the human psychological need for relationships, respect, self-esteem, competence, meaning, and purpose in life, accordingly to definition of Diener et al. (2010). As a summary measure of this construct, they also developed the Flourishing Scale. Additionally, in the PERMA model submitted by Seligman, flourishing is derived from five pillars of well-being: Positive emotion, Engagement, Relationships, Meaning, and Accomplishments. It emphasizes that PERMA are the building blocks for profound fulfillment in life⁸¹. These two models establish that flourishing involves maximizing one’s potentials and living to the fullest to obtain optimal psychosocial functioning⁸². Moreover based on the conservation of resources theory (COR), individuals are driven by the primary goal to achieve, preserve, and protect resources that they centrally value. Crucial resources are conditions (e.g. social support), personal characteristics (e.g. self-efficacy), and energies (e.g. effort). When resources are threatened or depleted, stress enhances. A significant presumption of COR is that individuals have to invest resources to increase their abilities to cope and deal with stressful situations so that negative outcomes are prevented, and desirable goals are obtained. Accordingly, to COR reservoir of resources has to be gained and accumulated to prepare for future investments. Personal resources can be developed together as</p>

⁷⁸ Maturana H. , Varela F. *The Tree of Knowledge: Biological Roots of Human Understanding*, Boston, 1987.

⁷⁹ Garland, E.L. , Fredrickson, B.L. *RUNNING HEAD: Extending the Mindfulness-to-Meaning Theory Positive Psychological States in the Arc from Mindfulness to Self-Transcendence: Extensions of the Mindfulness-to-Meaning Theory and Applications to Addiction and Chronic Pain Treatment*, (2019).

⁸⁰ Ibidem.

⁸¹ Seligman, M.E.P. *Flourish: A Visionary New Understanding of Happiness and Well-Being*, New York 2011.

⁸² Ho, H.C.Y. , Chan, Y.C. *Flourishing in the Workplace: A One-Year Prospective Study on the Effects of Perceived Organizational Support and Psychological Capital*. “Int J Environ Res Public Health” 2022, nr. 19.

resource caravans when the environment is nurturing and supportive. It is worth to mention that individuals who working in a supportive organization are more hopeful, efficacious, resilient, and optimistic. This resource caravan passageway is assumed to evolving of employee flourishing in the long term. Parallel the organizational support theory (CST) indicates that perceived organizational support (POS) – employees’ perceiving that the organization supports their well-being, recognizes their contributions, and tries to fulfil their needs, is integral to their well-being. According to POS the work outcomes are achieved through self-enhancement and social exchange processes. Self-enhancement, in POS is supported by fulfilling employees psychosocial and emotional needs, which then can lead to flourishing. In compliance with COR, meaningful investment of resources may as a result lead to employee flourishing, secure resource loss and obtains resources that are significant to overall well-being. As studies indicated, POS is linked with job satisfaction, job-related affect, subjective well-being, reduced stress and burnout, and has additionally an indirect effect on depressive symptoms. Recent studies of Ho and Chan (2021) exhibited that POS can increase psychological capital (PsyCap) and in turn promote employee flourishing over time⁸³. Mindfulness as presents recent study of Junça-Silva et al.(2021) increases the positive effective experience, committing in a higher level of employee flourishing⁸⁴. Previous study of Zheng et al. (2018) exhibited that mindfulness improves personal resources and positive emotions, leading to psychological flourishing that promotes work engagement⁸⁵. In line, studies of Malinowski and Lim showed that it increases work engagement via positive job-related effects and psychological capital. Their study also indicated that nonreactivity and non-judging facets of mindfulness are highly influential in reinforcement of engagement⁸⁶. Correspondingly, study of Hackenberg et al. (2019) outlined that online mindfulness interventions also improved work engagement, enhanced optimism, and reduced over-commitment⁸⁷. Study of Matsuo (2020) pointed out the positive support impact of mindfulness on psychological attributes to identify employees’ strengths, enabling them to use those strengths actively to enhance their work engagement. Inversely, the connection between leader mindfulness and their cynicism was negatively mediated by their psychological capital. Additionally,

⁸³ Ho, H. C. Y., Chan, Y. C. *Flourishing in the Workplace: A One-Year Prospective Study on the Effects of Perceived Organizational Support and Psychological Capital*. “Int J Environ Res Public Health” 2022, nr. 19. Ibidem.

⁸⁴ Junça-Silva, A., Mosteo, L., Lopes, R.R. *The role of mindfulness on the relationship between daily micro-events and daily gratitude: A within-person analysis*. “Pers Individ Dif” 2023, nr. 200.

⁸⁵ Zheng, C. S., Gunasekara, A., Blach, S. *Mindfulness and Work Engagement: The Mediating Effect of Psychological Flourishing*. “Acad. Manag. Proc.” 2018.

⁸⁶ Malinowski, P., Lim, H. J. *Mindfulness at Work: Positive Affect, Hope, and Optimism Mediate the Relationship Between Dispositional Mindfulness, Work Engagement, and Well-Being*. “Mindfulness (N Y)” 2015, nr. 6, p. 1250–1262.

⁸⁷ Heckenberg, R.A., Hale, M.W., Kent, S., et al. *An online mindfulness-based program is effective in improving affect, over-commitment, optimism and mucosal immunity*. “Physiol Behav” 2019, nr. 199, p. 20–27.

	<p>studies of Montani et al.⁸⁸ and Hobfoll et al.⁸⁹ presented that higher mindfulness in employees is beneficial to enhance engagement in innovative behaviors among employees experiencing low-activated negative effects, such as feelings of unhappiness, sadness, and hopelessness, by energy conservation due to minimizing ruminative thoughts and instead expending such energy for innovative strategies, according to the conservation of resources theory. Mindfulness supports recovering from work stress by reducing stressors and worries, and quickly restoring to the original mental state, facilitating employee engagement. Panditharathne and Chen in their review state that mindfulness interventions improve employee resources required for positive organizational outcomes⁹⁰.</p>
<p>Optimization – Phan et al.'s focuses on the potential for a person to reach his/her optimal achievement⁹¹.</p>	<p>In his theory of optimization Phan et al.'s promotes that potential for a person can be achieved via different types means of like educational (e.g., an effective instructional psychological (e.g., the operational nature of personal belief of efficacy) and psychosocial (e.g., the impact of the home environment agencies)⁹². The researchers suggested that people's state of functioning could be optimized by mindfulness. Mindfulness meditation could be used as an optimizing agent to achieve optimal best practice in the tenets of the optimization theory in positive psychology. Through skillful selection among alternative meaning-making processes, mindfulness allows for the possibility of optimizing behavior to match one's values and perceived needs⁹³. Importantly, one hallmark of Phan et al.'s theory of optimization is that successful optimal functioning (e.g., optimal cognitive functioning) reflects a state of flourishing⁹⁴.</p> <p>It is also worth mentioning that scholars have recently attempted to consider the positive gains of mindfulness in organizations, and demonstrated that mindfulness enhances all crucial aspects for optimization, including resilience, social relationships performance, and well-being. Mindfulness research in neurobiology proves that mindfulness-related changes in brain structures and activities affect increased awareness, careful affective and physiological regulation, and positive mental experiences⁹⁵.</p>

⁸⁸ Montani, F., Dagenais-Desmarais, V., Giorgi, G., et al. *A Conservation of Resources Perspective on Negative Affect and Innovative Work Behaviour: the Role of Affect Activation and Mindfulness*. "J Bus Psychol" 2018, nr. 33, p.123–139.

⁸⁹ Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., et al. *Conservation of Resources in the Organizational Context: The Reality of Resources and Their Consequences*. "Annu. Rev. Organ. Psychol. Organ. Behav." 2018, nr. 5, p.103–128.

⁹⁰ Panditharathne, P.N.K.W., Chen, Z. op. cit.

⁹¹ Phan, H. P. et al. *Advancing the Study of Positive Psychology: The Use of a Multifaceted Structure of Mindfulness for Development*. "Front Psychol" 2020, nr. 11.

⁹² Ibidem.

⁹³ Garland, E.L., Farb, N.A., Goldin, P.R., Fredrickson, B.L. op. cit.

⁹⁴ Phan, H.P., Ngu, B. H., White, M.O. *Introducing 'holistic psychology' for life qualities: A theoretical model for consideration*. "Heliyon" 2021, nr. 7, e05843.

⁹⁵ Panditharathne, P.N.K.W., Chen, Z. op. cit.; Edwards, J., Peres, J., Monti, D.A., et al. *The neurobiological correlates of meditation and mindfulness*. [in:] *Exploring Frontiers of the Mind-Brain Relationship*, New York 2012.

<p>Mental health</p>	<p>The impact of mental stress is considered as substantial. Studies exhibit that mental stress compensation claims have constituted an average of 95% of all mental disorder claims and are classified as the most expensive form of workers' compensation claims due to the usually lengthy periods absent from work, as also as the significant economic impact from lost productivity in the workplace (Safe Work Australia, 2013)⁹⁶. While the benefits of mindfulness to mental health are well established in the science (e.g. Zylowska, Smalley, , Schwartz, 2009; Bohlmeijer, Prenger, Taal, , Cuijpers, 2010; Hofmann, Sawyer, Witt, , Oh, 2010; Goleman, 2013; Khoury et al., 2013; Cook-Cottone, 2015; de Manincor et al., 2015, 2016; Jorm, 2015; Marwaha, Balbuena, Winsper, , Bowen, 2015; Crowe, Jordan, Burrell, Jones, Gillon, , Harris, 2016)⁹⁷. There was even developed a particular therapeutic program based on mindfulness interventions – Mindfulness-Based Cognitive Therapy (MBCT), which is proved as effective for mental health conditions, such as anxiety⁹⁸ and recurrent depression⁹⁹.</p> <p>It is also worth pointing out that, as exhibited various studies, also short-term mindfulness training programs increase mindfulness, emotional memory, emotional stability, self-care and work-life balance; and on the other hand, decrease emotional intensity, negative emotional attention bias, momentary stress, overall perceived stress at work, work-related stress; and improve. Recent meta-analyses indicate that mindfulness training programs were effective in decreasing anxiety, depression, and stress, and improving psychological well-being. What is worth to underline, the beneficial effect endures even after six months of the intervention. Additionally, individuals with higher mindfulness level may generally reduce stress, what can deplete dysphoric mood levels due to less intensive rumination affect¹⁰⁰.</p>
<p>Metacognition – when thought is turned inward to operate upon itself—termed metacognition—a common expression of this mode of processing</p>	<p>According to CBT in a conceptual processing mode, thought dominates attention and then perceiving of the world. Various stimuli appearing during throughout the day, thought immediately operates to evaluate and interpret what is perceived. Term metacognition relate to situation when thought is turned inward to operate upon itself. General expression of this mode of processing is to contemplate on mental content in an attempt to comprehend, work through, or resolve what</p>

Tang, Y.Y. , Posner, M.I. *Special issue on mindfulness neuroscience. Social Cognitive and Affective Neuroscience* , 2013, nr. 8, 1–3.

Posner, M.I., Tang, Y.-Y. , Lynch, G. *Mechanisms of white matter change induced by meditation training*. “Front Psychol” 2014, nr. 5.

⁹⁶ Levett, K.M., Coughlan, S., Longridge, S., et al. *Be well: A systems-based wellness intervention using mindfulness in the workplace – A case study*. “J. Manag. Organ.” 2019, nr. 25, p. 613–634.

⁹⁷ Ibidem.

⁹⁸ Vøllestad, J., Sivertsen, B. , Nielsen, G.H. *Mindfulness-based stress reduction for patients with anxiety disorders: Evaluation in a randomized controlled trial*. “Behaviour Research and Therapy” 2011, nr 49, p. 281–288.

⁹⁹ Teasdale, J.D. et al. *Metacognitive awareness and prevention of relapse in depression: Empirical evidence* “J Consult Clin Psychol” 2002, nr 70, p. 275–287; Lomas, T., Medina, J.C., Ivtzan, I., et al. *Mindfulness-based interventions in the workplace: An inclusive systematic review and meta-analysis of their impact upon wellbeing*. “J. Posit. Psychol.” 2019, nr 14, p. 625–640.

¹⁰⁰ Panditharathne, P.N.K.W. , Chen, Z. op. cit.

is to dwell on mental content in an attempt to understand, work through, or resolve what occupies the mind, especially when it has personal importance; that is, self-concern is a reference point in interpreting what has, is, or will occur¹⁰¹.

absorbs the mind, especially when it has personal value. As Garland et al.¹⁰² states, self-concern is a reference point in interpreting what has, is, or will occur. This conceptual processing, as presents Watkins, (2008), is usually recurrent or repetitive and taking forms such as worry or rumination. The scholars (e.g. Leary, 2004; Watkins, 2008) emphasize that this conceptual processing involves interpreting stimuli in a way that is abstract, evaluative, and biased toward self-concerns. Inversely mindfulness, as exhibit Brown et al. (2007) and Teasdale (1999), engages experiential processing, which entail attention to the internal (e.g., thought, emotion) or external stimulus itself in an observing of the registered facts. Experiential processing enables the individual to more aware perceiving a stimulus as it is, be present at the moment, without immediate striving to derive meaning from it, which are often habitual nature. In experiential processing, general psychological content—mental images, self-talk, emotions, impulses to act, and so on—can be observed as part of the ongoing stream of consciousness¹⁰³. This mode of processing, as presented Brown et al. (2007) has also been indicated as “decentering,” as it implies perceiving experiences within a broader context of awareness (e.g., to perceive thoughts as just thoughts). While the reactions to stimuli are observed, rather than, as it habitually takes a place, interpreted with positive or negative implications for the self. For instance, in situations where an individual deals with threatening stimuli, such as an angry or abusive manager, the internal experience of anger, anxiety or other reactions are observed, initialize cognitive, emotional, somatic, and voluntary expressions (like awareness of one’s evaluations of the impulse of fear increasing, of the heart running, and of a need to calm down). Awareness of and attention to these reactions enables a extend of mental distance or disengagement from self-relevant interpretation¹⁰⁴.

Additionally, according to the MMT model, mindfulness meditation enables to exclude from habitual schema into a metacognitive state of awareness in which attention extends to perceive previously unattended information from which new cognitive structures can be constructed. One of them may be positive reevaluation. However, it does not mean that an individual only focuses on positive aspects of an experience and deny the “negative” features. Although through positive reevaluation one may appreciate adverse experiences in full without judgment and utilize them as a tool towards the goal of self-development. Positive reevaluation – reappraisal by Garland et al. is defined as an adaptive process linked with meaning-based coping in which stressful events are re-constructed as benign, valuable, or beneficial¹⁰⁵. Further during reappraisal individual can experience a lot of insights as discovering own meaning of life and freedom. Although at the initial level it can lead also to difficult ontological or metaphysical insights (such as

¹⁰¹ Good, D.J. et al. op. cit.

¹⁰² Garland, E.L., Farb, N.A., Goldin, P.R. , et al. op. cit.

¹⁰³ Ibidem.

¹⁰⁴ Ibidem.

¹⁰⁵ March, G. op. cit.; Garland, E.L., Farb, N. A., Goldin, P.R. , et al. op. cit.

	<p>everything is impermanent, life is suffering, and the self is empty of independent existence), however in the long term it provides more profound meaning in life and bliss¹⁰⁶.</p> <p>In their article presenting MMT model which enables better understanding how and why mindfulness trainings revitalizing employees' psyche, Garland et al. underlined that the practice of mindfulness allows the conscious mind to move into a metacognitive state affecting how one concentrates on the experience presently by promoting positive reappraisals as a positive influence towards adaptive behavior¹⁰⁷. Accordingly Glomb et al.¹⁰⁸ presents that cultivating nonjudgmental acceptance causes that people's reactions are less automatic by making a break before deciding how to feel or respond. Meditators claim that pain is unavoidable, but suffering is a choice, and this skill may create a "mental space" which enables to perceive an immediate problem or feared outcome like a single fleeting event, instead of having it feel like the totality of one's experience – or even one's being. This "mental space" allows it to soothe some of the negative stimuli, which leads to greater mental resistance¹⁰⁹.</p>
<p>Decentration</p>	<p>As exhibited Shapiro et al. the key significance through which mindfulness both as a quality/state and as a practice exerts, is that it implies a meta-mechanism recognized as re-perceiving or a "decentering"¹¹⁰. It integrates the three components of mindfulness such as intention, attention, and attitude and is "fundamental shift in perspective", in which "rather than being immersed in the personal drama or narrative of our life story, we are able to stand back and witness it"¹¹¹. The "standing back" or, regarding Shapiro et al. "re-perceiving", is by Fresco et al. (2007) defined as "decentering", i.e., "the ability to observe one's thoughts and feelings as temporary, objective events in the mind, as opposed to reflections of the self that are necessarily true"¹¹². Hence, by guided practice of mindfulness, individuals learn and can experience how to enter into various connections with their subjectivity. It enables them to, as describes it Bishop et al., (2004), "stand back" and dispassionately view qualia – i.e., the contents of their subjectivity (e.g., thoughts, feelings) – as phenomena passing through their internal world, rather than identifying with and attaching to or becoming averse to such qualia. It is worth pointing out that this state is considered to have positive impact upon well-being.</p>

¹⁰⁶ Ibidem.

¹⁰⁷ Ibidem.

¹⁰⁸ Glomb, T.M., Duffy, M.K., Bono, J.E., et al. *Mindfulness at Work*. [w:] *Research in Personnel and Human Resources Management* 2011, nr. 30, p. 115–157.

¹⁰⁹ Hafenbrack, A.C. *Mindfulness Meditation as an On-The-Spot Workplace Intervention*. "J Bus Res" 2017, nr. 75, p. 118–129.

¹¹⁰ Shapiro, S.L., Carlson, L.E., Astin, J.A., Freedman, B. *Mechanisms of mindfulness*. "J Clin Psychol" 2006, nr. 62, p. 373–386.

¹¹¹ Lomas, T. et al. *The impact of mindfulness on well-being and performance in the workplace: an inclusive systematic review of the empirical literature*. "Eur. J. Work Organ. Psychol." 2017, nr. 26, s. 492–513.

¹¹² Ibidem.

	<p>Accordingly, as underlined by Shapiro, Astin, Bishop and Cordova (2005), mindfulness interventions (MBI) are not focused, and may take a place in cognitive therapy, on changing participants' thoughts/feelings per se, but rather on supporting "become more aware of, and relate differently to" their content¹¹³. Therefore, MBIs "retraining awareness" as exhibit Chambers, Gullone and Allen¹¹⁴, so that individuals have broader perspective in how they relate and respond to their subjective experience, rather than habitually responding in maladaptive ways. Additionally, as suggest Aldao, Nolen- Hoeksema and Schweizer¹¹⁵ retraining awareness may have positive impact on mental health due to engaging introspective practices that supports the development of attention and awareness abilities, while development of these skills leads to improving in emotional regulation (including skills such as re-perceiving). Furthermore, emotional regulation is a meta-skill that subserves manifold well-being outcomes (while, in contrary, poor regulation is a transdiagnostic factor underlying diverse mental health issues)¹¹⁶.</p> <p>Additionally, according to Garlands and Fredrickson's Mindfulness-to-meaning theory (MMT), through "decentering" and reappraisals individual can enter into metacognitive state of awareness which resulting in broadened attention to novel information that accommodates a reappraisal of life circumstances. The reappraisal is then enriched when individual savors positive features of the socio-environmental context, subsequently motivating values-driven behavior and ultimately engendering eudaimonic meaning in life¹¹⁷.</p>
<p>Body self awareness – interoception</p>	<p>Nowadays, there is no doubt that the body and mind are strongly and directly related and interact with each other. Emotions are not elusive phenomena, they are real specific phenomena that affect individuals, and as emphasizes A. Damasio „can be associated with specific bodily systems, such as speech or eyesight. The parts of the brain responsible for their existence are not limited to subcortical structures. The interior of the brain works in realizing emotions and feelings with the cerebral cortex as much as in the case of the vision function.”¹¹⁸. Therefore, body self-awareness or interoception should be also considered as key areas of research in management science hence it facilitates not just physical and mental well-being but also influence emotion, motivation, performance and as studies exhibits are linked with anxiety and</p>

¹¹³ Shapiro, S.L., Astin, J.A., Bishop, S.R. et al. . *Mindfulness-Based Stress Reduction for Health Care Professionals: Results From a Randomized Trial*. "Int J Stress Manag" 2005, nr 12, p. 164–176.

¹¹⁴ Chambers, R., Gullone, E. , Allen, N.B. *Mindful emotion regulation: An integrative review*. "Clin Psychol Rev" 2009, nr 29, p. 560–572.

¹¹⁵ Aldao, A., Nolen-Hoeksema, S. , Schweizer, S. *Emotion-regulation strategies across psychopathology: A meta-analytic review*. "Clin Psychol Rev" 2010, nr 30, p. 217–237.

¹¹⁶ Lomas, T., Medina, J.C., Ivtzan, I., Rupprecht, S. , Eiroa-Orosa, F.J. op. cit.

¹¹⁷ Garland, E.L., Farb, N.A., Goldin, P.R. , et al. op. cit.

¹¹⁸ Damasio, A., Damasio, H. , Tranel, D. *Persistence of Feelings and Sentience after Bilateral Damage of the Insula*. "Cerebral Cortex" 2013, nr 23, p. 833–846; Damasio, A., *Feelings of Emotion and the Self*. "Ann N Y Acad Sci" 2003, nr. 1001, p. 253–261.

depression¹¹⁹. Interoception, can be broadly defined as a collection of processes through which the nervous system senses, interprets, integrates and regulates information originating inside the body, providing a moment-by-moment mapping of the body's internal environment. There are important associations between interoception, mindfulness, and mental health¹²⁰.

It is worth mentioning, as underlined by Hirsch et al. (2023), that the more bodily impulses associated with emotions, sensations and drives are known to us, the more they are under control. This is also according to antic stoic philosophy where Seneca finds that, a person must not only confront that which is external to him, but, above all, look within oneself and consider one's condition and to contemplate how to be in accordance with Nature. The body and mind connection, as Reydams-Schils (2010) indicate, are in accordance with the goal of Stoicism which is to 'interiorize' and 'digest' the philosophy such that it is completely embodied and becomes one's natural way of being in the world: 'The knowledge and training acquired through education has to be portable'. In conformity with Foucault (1997), the 'discourses' are crucial to maintaining control in the face of unexpected events and, to be most useful, have to reside within us, be equivalent to instincts. Implemented through embodied practice, discourses become more directly accessible than ideas, which one must purposefully and consciously recall from memory. As exhibits Hirsch et al. (2023), the more these repetitions occur, the less cognitive effort it takes to overcome the temptations of emotion. Accordingly for Stoics, the crucial role played, developing an awareness of bodily sensations, can hence impact action¹²¹.

Recent reviews of Todd and Aspell (2022) indicate that there are evident theoretical parallels between interoception and mindfulness. Mindfulness practices are based on the noticing of body sensations, and there are several interoceptive mechanisms that may impact mindfulness-based interventions, including interoceptive attention, interoceptive appraisal, and the use of interoceptive regulation strategies. Interoceptive processing may be modified through mindfulness-based training programs via sustained attention to respiratory signals and bodily sensations such as pressure, movement and temperature, and cognitive and affective qualities of mindful attention to the internal body. Increased number of studies bound interoception and mindfulness in tandem. It has been found that mindfulness-based training programs enhance interoception when measured using self-report measures, and have also been associated with increased activation in the brain regions associated with interoceptive processing, such as the insular cortex.

¹¹⁹ Paulus, M.P. , Stein, M.B. *Interoception in anxiety and depression*. "Brain structure , function" 2010, nr 214, p. 451–463.

¹²⁰ Todd, J. , Aspell, J.E. *Mindfulness, Interoception, and the Body*. "Brain Sci" 2022, nr 12.

¹²¹ Hirsch, C., von Bülow, C. , Simpson, P. *Stoicism, philosophy as a way of life and Negative Capability: Developing a capacity for working in radical uncertainty*. "Leadership" 2023, nr. 19, p. 393–412.

	<p>It is worth mentioning that the findings of Todd and Aspell (2022)¹²² exhibit that it may be also possible to improve interoceptive abilities via short-term mindfulness-based interventions and cognitive behavioral therapy. Mindfulness practices are considered for suitable solution for various mental health problems and the scholars present that, in the future, interoceptive/mindfulness interventions could be suited not only particular psychological disorders (e.g., the approach appropriated for depression would differ from that appropriated for anxiety), but also tailor to individuals —analogous to personalized medicine—according to which intervention an individual benefit most from, and can best engage with¹²³.</p>
<p>Motivation</p>	<p>Motivation with no doubt is a crucial aspect of management. According to the self-determination theory of Ryan and Deci (2000), nurture of human needs is important for “ongoing psychological growth, integrity, and well-being”¹²⁴. Mindfulness is suggested to increasing the employee motivational process and satisfaction. From a behavioral science perspective it is considered as a discipline of consciousness and correlated with self-regulation. In line with human agency in social cognitive theory, self-efficacy leads to the motivational process and self-regulation of people’s emotions and thoughts. Thus, the capability of self-regulation and reflective self-consciousness may improve goal-directed behavior and employee engagement¹²⁵. Additionally, Brown et al. (2016) emphasized the importance of mindfulness for episodic memory and motivation empirically. It is worth to mention that focus, and attention are psychological resources that support people in coping actively and efficiently with tasks. Those with high intrinsic motivation can deal with work stress by better attention of available resources. Moreover, mindfulness improves the attentional process and moderates the association between organizational stress and job satisfaction. Therefore, as presents Panditharathne and Chen in their review, mindfulness “acts as a mitigator for employee dissatisfaction in an environment with high work stress by increasing the focus on job demands, optimum use of job resources, and developing an emotional state of alleviated reactions (lower emotional reactivity) to stress, primarily by the non-judgmental facet of mindfulness”¹²⁶. Awareness is also considered as an essential feature to identify the reality of oneself, and the social and physical environment and mindfulness is indicated as vital phenomenon in triggering need satisfaction and eudaimonia. It may be important tool for a healthier and productive workforce. Thus,</p>

¹²² Todd, J. , Aspell, J.E. *Mindfulness, Interoception, and the Body*. “Brain Sci” 2022, nr 12.

¹²³ Todd, J. , Aspell, J. E. *op. cit.* Ibidem.

¹²⁴ Deci, E.L. , Ryan, R.M. *The ‘What’ and ‘Why’ of Goal Pursuits: Human Needs and the Self-Determination of Behavior*. “Psychol Inq” 2000, nr 11, p. 227–268.

¹²⁵ Bussey, K. , Bandura, A. *Social cognitive theory of gender development and differentiation*. “Psychol Rev” 1999, nr 106, p. 676–713; Bandura, A. *The Evolution Of Social Cognitive Theory* [w:] *Great Minds in Management* Oxford 2005, p. 9–35

¹²⁶ Petchsawang, P. , McLean, G.N. *Workplace spirituality, mindfulness meditation, and work engagement*. “J. Manag. Spiritual. Relig.” 2017, nr. 14, p. 216–244.

	scholars underline that competence and mindfulness are imperative components leading to intrinsic motivation ¹²⁷ .
Workplace spirituality	<p>As Parboteeah and Cullen (2003) exhibited, workplace spirituality, in terms of meaning at work, is not a new idea and is can be relevant to Hackman and Oldham's (1980) job characteristics model. Term has been grounded in the perspective of organization and management theory by Driscoll and Wiebe (2007). Though it transcends the feature of interesting and satisfying work to the spiritual view of work, which is linked with searching for deeper meaning, purpose, and feeling good about one's work. Moreover, the spirituality concept has also involved motivation theory, as in Maslow's (1970) hierarchy of needs. As states Izak (2012) fulfilling people's spiritual needs is similar to accomplishing the highest level of human needs, as in self-actualization (Maslow 1970)¹²⁸.</p> <p>Based on Ashmos and Duchon (2005), Pawar (2008), and Roof (2015), theory development in workplace spirituality is at a formative stage. Various studies (e.g. Altaf and Awan 2011; Gupta et al. 2014; Lee et al. 2003; Pawar 2009; Milliman et al. 2003) have provided empirical evidence that workplace spirituality, what consist of individual experience and organizational context, is positively correlated with important factors, such as job satisfaction and job involvement. According to findings of Chawla (2014) and Daniel (2015), it is negatively correlated to organizational deviant behaviors and stress. Additionally, the studies of Gatling, Kim and Milliman (2016), Kazemipour et al. (2012), Pawar (2009) and Milliman et al. (2003) presented that it also improves organizational commitment, intrinsic work satisfaction, organization-based self-esteem. Moreover, Afsar and Rehman (2015) found that it increases innovative work behavior. Rahman et al. (2015) presented that it supports knowledge sharing behavior. Interesting are also findings of Gatling et al. 2016; Milliman et al. 2003 which present that it is negatively corelated with intention to quit. Moreover, as stated Altaf and Awan (2011) workplace spirituality moderates the relationship between job overload and job satisfaction and Kazemipour et al. (2012) showed that affective organizational commitment mediated the effect of workplace spirituality on organizational citizenship behavior (OCB).</p> <p>Additionally, what is worth to consider, various studies (e.g. Ashmos and Duchon 2005; Osman-Gani, Hashim, and Ismail 2013; Petchsawang and Duchon 2012) find that workplace spirituality is positively to productivity and performance across cultures and countries¹²⁹.</p>
Job satisfaction	As presented in various places above it is proved in numerous studies that mindfulness significantly increases job satisfaction, task performance, and organizational citizenship behavior, and reduces emotional exhaustion in employees ¹³⁰ . At this point, this area is only

¹²⁷ Ibidem.

¹²⁸ Ibidem.

¹²⁹ Ibidem.

¹³⁰ Ibidem.

	<p>separated to highlight the meaningful role of mindfulness in the sense of internal satisfaction. For instance, as found by Hülshager et al. (2013), trait and state mindfulness are positively linked with job satisfaction, and additionally trait mindfulness bore a stronger relation. Their another study where employees were randomly assigned to a self-directed mindfulness intervention, resulted with higher job satisfaction. Numerous separate studies confirmed these correlations in a diversity of occupations, including doctors (e.g. Krasner et al., 2009), soldiers (e.g. Jha et al., 2015), and teachers (e.g. Roeser et al., 2013)¹³¹.</p>
<p>Learning and memory abilities</p>	<p>Mindfulness is also essential for somatic learning, there is a wealth of scientific evidence presents influence of mindfulness practices of neuronal changes in brain areas responsible for memory and neuroplasticity. That is not the main topic of this article, that's why it is just enabled to show the general area. The coexistence of integrative mind and body attunement plays a significant role in management learning, the managing process, and somatic work. Cacioppe argued that mindfulness and flow foster organizational learning, particularly in learning organizations. Therefore, self-perceived competencies may be enhanced¹³². It is worth to mention that it is proved that mindfulness programs such as mindfulness-based stress reduction (MBSR) and mindfulness based cognitive therapy (MBCT) help improve patient's cognitive abilities. Also, mindfulness training increases cognitive abilities and mood even after practicing just four days. Parallel, studies of Mrazek et al., (2013) presented that reading comprehension score and working memory capacity were enhanced after two weeks of mindfulness training¹³³.</p> <p>As review of twenty-three studies by Chiesa et al., (2010) presented early phases of mindfulness training, which are more concerned with the development of focused attention, could be associated with significant improvements in selective and executive attention whereas the following phases, which are characterized by an open monitoring of internal and external stimuli, could be mainly associated with improved unfocused sustained attention abilities. Additionally, MMPs could enhance working memory capacity and some executive functions¹³⁴. Levi and Rosenstreich (2018) state that memory and mindfulness are intimately related. They suggest four pathways through which mindfulness may benefit all memory systems. First is due to its influence on attention and improving of cognitive control. Mindfulness in this way may support memory by increasing the availability of attentional resources and by reducing cognitive interference. The second is improving interoceptive awareness and leading to increasing procedural learning of new motor skills. The third is due to emotion regulation, hence as indicated Moser et al. (2017) and Kensinger (2009)</p>

¹³¹ Good, D.J. et al. op. cit.

¹³² Panditharathne, P.N.K.W. , Chen, Z. op. cit.

¹³³ Gupta, S.S., Manthalkar, R.R. , Gajre, S.S. *Mindfulness intervention for improving cognitive abilities using EEG signal*. "Biomed. Signal Process. Control" 2021, nr. 70.

¹³⁴ Chiesa, A., Calati, R. , Serretti, A. *Does mindfulness training improve cognitive abilities? A systematic review of neuropsychological findings*. "Clin. Psychol. Rev." 2011, nr 31, p. 449–464

	<p>human memory tends to store events by their perceived emotional context, mindfulness influences the recovery of emotional episodic or autobiographical memories¹³⁵. The fourth pathway is via its connection with consciousness, because as Jankowski and Holas indicate, mindfulness is frequently connected with unique state of consciousness, where occurs monitoring over metacognitive processes¹³⁶. It is a significant concept linked with memory processes, hence encoded information may be retrieved with or without awareness of its relevant contextual information. Accordingly, they suggest that, if mindfulness is an elevated state of awareness, it should be manifested in the processes underlying the retrieval of information¹³⁷.</p> <p>Moreover, in EEG study Gupta et al. (2021) present that practicing mindfulness daily for 20 min for eight weeks improves the flexibility in switching among different functional states. As they stated “this has long term repercussions in improved learnability and reception to new ideas for the subjects with regular mindfulness practice.”¹³⁸</p>
Emotional intelligence	<p>Emotional intelligence is a crucial ability in numerous aspects at various organizational levels. As studies exhibit it also plays significant role in coping with job related stress and burnout¹³⁹. Meta-analysis by Miao et al., presented that mindfulness is strongly linked with emotional intelligence¹⁴⁰. Key factors of mindfulness – attention, awareness and non-judgmental enable greater emotional intelligence. Additionally, intrapersonal and interpersonal adaptive functioning connected with emotional intelligence increase well-being and performance. Hence, it can be stated that higher emotional intelligence, and intrapersonal and interpersonal adaptive functioning due to mindfulness practice, support improving well-being. Moreover, MBI also assist in excluding and combating employees’ tension in and outside the working environment. In turn, positive cognitive, emotional, physiological, and behavioral effects as a result of mindfulness practice plays significant role for improving both leaders’ and employees’ well-being and health, indirectly influencing also societal well-being, health, and sustainability¹⁴¹.</p>
Wellbeing increasing	<p>Various studies (e.g. Brown and Ryan, 2003; Kinman et al., 2020; Malinowski et al., 2015; Roche et al., 2014, Dobie et al., 2012; Arnold,</p>

¹³⁵ Levi, U. , Rosenstreich, E. *Mindfulness and Memory: a Review of Findings and a Potential Model.* *J. Cogn. Enhanc.* 2019, nr 3, p. 302–314.

¹³⁶ Jankowski T, Holas P. *Metacognitive model of mindfulness.* “Conscious Cogn.” 2014, nr 28, p. 64-80.

¹³⁷ Levi, U. , Rosenstreich, op. cit.

¹³⁸ Gupta, S.S., Manthalkar, R.R. , Gajre, S.S. *Mindfulness intervention for improving cognitive abilities using EEG signal.* “Biomed Signal Process Control” 2021, nr. 70.

¹³⁹ Pérez-Fuentes, M.C., Gázquez, J.J., Mercader, I. , Molero, M.M. *Brief Emotional Intelligence Inventory for Senior Citizens (EQ-i-M20)* “Psicothema” 2014, nr 26, p.524–530

¹⁴⁰ Miao, C., Humphrey, R.H. , Qian, S. *The relationship between emotional intelligence and trait mindfulness: A meta-analytic review.* “Pers Individ Dif” 2018, nr 135, p. 101–107.

¹⁴¹ Pérez-Fuentes, M. del C., Molero Jurado, M. del M., Rubio, I.M., et al. *Mindfulness for preventing psychosocial risks in the workplace: A systematic review and meta-analysis.* “Applied Sciences (Switzerland)” 2020, nr 10.

Panditharathne, P.N.K.W. , Chen, Z. op. cit.

2017) proved that mindfulness directly, and through positive job-related effects, increases hope, and optimism, enhances general well-being and mental well-being¹⁴². For instance, in the study conducted by Klatt et al.(2017), MBI improved health, and wellbeing of employees, and decreases level of depression, anxiety, and stress¹⁴³. Additionally, Panditharathne, et al. (2021) indicate that wellbeing and work performance are linked with activities after work. Higher mindfulness is positively linked with psychological and physical well-being-related dimensions, such as coworkers' daily positive affect, psychological detachment after work, relaxation experiences, sleep quality, sleep duration, happiness, better relationship satisfaction, minimized work–family conflicts, work–life enrichment, quality of life, reduced enacted incivility, reduced incidence of bad moods¹⁴⁴. In line with meta-analysis by Vonderlin (2020) presents that mindfulness training in the workplace enhances the well-being and health of participants (e.g., Eby et al. 2019; Janssen et al. 2018; Lomas et al. 2017a)¹⁴⁵. It is also worth to mention relatedness, which is considered a crucial psychological need. As exhibited Deci et al. (2001) having good relationships with colleagues is a key factor of employee satisfaction and well-being¹⁴⁶. Poor or unpleasant relationships at work can be a main reason of stress and provoke to seek employment elsewhere (Gerstner and Day 1997). Accordingly, studies (e.g. Wachs and Cordova, 2007; Barnes et al., 2007) indicate that mindfulness improve finer emotional relating to others and is linked with better interpersonal relationships¹⁴⁷. Moreover, meta-analysis by Eberth and Sedlmeier (2012) indicate that various studies (e.g. studies of Flook, Goldberg, Pinger, Bonus, Davidson, 2013; Krasner et al., 2009; Roeser et al., 2013; Allen and Kiburz, 2012; Roche, Haar, Luthans, 2014; Hülshager et al., 2014), proved that mindfulness and mindfulness-based practices may enhance numerous facets of well-being across a variety of occupations, including managers and entrepreneurs. It is corelated with self-compassion, psychological capital, and resilience as also with decreased levels of reported burnout perceived stress, work-family conflict, and negative moods, along with greater sleep quality¹⁴⁸. It is also worth to mention that, as numerous studies present (e.g. Bartlett et al., 2019; Wu et al., 2019; Kemper, 2017; Nübold and Hülshager, 2021; Chin et al., 2019; Kriakous et al., 2021; Spinelli et al., 2019; Barattucci et al., 2019; Ciesla et al., 2012) even short-term mindfulness training programs increase mindfulness, emotional

¹⁴² Ibidem.

¹⁴³ Pérez-Fuentes, M. del C., Molero Jurado, M., Rubio, I.M., et al.op. cit.

¹⁴⁴ Panditharathne, P.N.K.W. , Chen, Z. op. cit.

¹⁴⁵ Vonderlin, R., Biermann, M., Bohus, M. , Lyssenko, L. *Mindfulness-Based Programs in the Workplace: a Meta-Analysis of Randomized Controlled Trials*. “Mindfulness” 2020, nr 11, p. 1579–1598.

¹⁴⁶ Deci, E.L. et al. *Need Satisfaction, Motivation, and Well-Being in the Work Organizations of a Former Eastern Bloc Country: A Cross-Cultural Study of Self-Determination*. “Pers Soc Psychol Bull” 2001, nr 27, p. 930–942.

¹⁴⁷ Petchsawang, P. , McLean, G. N. op. cit.

¹⁴⁸ Good, D.J. et al. op. cit.

	<p>memory, and emotional stability; reduce emotional intensity, negative emotional attention bias, momentary stress, overall perceived stress at work, and work-related stress, increase self-care and work-life balance, also mitigate stress, leading to depleted dysphoric mood levels through lower state rumination affect. Moreover, various meta-analyses indicated that mindfulness training programs were beneficial in lowering anxiety, depression, and stress, and increasing psychological well-being. The positive effect persists even after six months of the intervention¹⁴⁹. In line with Jnaneswar, Sulphrey (2020), stated that mindfulness and workplace spirituality are strongly linked with employee mental well-being¹⁵⁰.</p>
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Mindfulmanagement and burnout prevention

Survey conducted in 2022 on 15,000 workers across 15 countries by McKinsey Health found that a quarter of employees experienced burnout symptoms. 76% of respondents in a Mental Health America and FlexJobs study agreed that workplace stress affects their mental health, and 75% experienced burnout¹⁵¹. Burnout is becoming a common condition for which one is acknowledged to an extended absence from work in many countries. Since May, 2021 it has also been listed in ICD-10. Prolonged stress is recognized as the most frequent reason for the leave. According to WHO's definition from 2022 this syndrome is related to stress at work – “chronic stress at work that is not successfully managed”. The above presented research, in different areas of management, indicates that mindfulness could be considered as an accurate means for employees to flourish and prevent burnout, hence it benefits the organization. Burnout presented by Taylor and Millier (2015) in the workplace across all occupations consists of three separate elements such as:

- (1) emotional exhaustion (intense mental or physical fatigue),
- (2) cynicism (disinterested response to workplace services),
- (3) reduced professional efficacy (inability to successfully complete tasks).

The growing body of studies and reviews presents (ie. Ho and Chan, 2023; Panditharathne and Chen, 2021; Shahbaz and Parker, 2021; Taylor and Millier, 2015; Dane and Brummel, 2013; Cohen-Katz, Wiley, Capuano, Baker, Shapiro, 2005) that mindfulness impacts on

¹⁴⁹ Panditharathne, P.N.K.W. , Chen, Z. op. cit.

¹⁵⁰ Jnaneswar, K. , Sulphrey, M.M. *A study on the relationship between workplace spirituality, mental wellbeing and mindfulness*, “Management Science Letters” 2021, s.1045–1054.

¹⁵¹ <https://www.mckinsey.com/mhi/our-insights/addressing-employee-burnout-are-you-solving-the-right-problem> – from 22.09.2023

decreasing employee burnout and indicate that mindfulness may be significant personal internal resource that buffers against burnout.

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It is also worth presenting that various studies link three elements of burnout with five facets of mindfulness such as:

- 1) the observation of the present and external environment,
- 2) the ability to describe that environment with words,
- 3) the ability to act with awareness of that environment,
- 4) the lack of judgement of the environment,
- 5) the lack of thoughtless reactions to that environment.

In the intervention presented by Cohen-Katz et al.¹⁵² these aspects were associated with lower levels of burnout in a diverse sample of employees as correlations and composed significant predictors of burnout, in the presence of the demands that lead to and resources that can buffer the individual, as identified by the job demands-resources model (JD–R Model) (e.g., greater workload, more skill discretion, more optimism). The particular facets of mindfulness represent significant predictors for decreasing emotional exhaustion (by not judging and not reacting), cynicism (by maintain aware of surroundings and not judging), and the inhibit the loss of performance and effectiveness (by attending surroundings). In conjunction with these findings Bakker and Demerouti (2007) indicate that mindfulness may represented another personal resource, which enables to manage workplace stressors and assist employees to be present and to overcome their challenges. It can be considered as accessory to the benefits of personal and workplace resources that the individual provides to prevent emotional exhaustion and cynicism developing or professional efficacy being lost. Additionally, as presented studies (e.g. Van Dam, Earleywine, Danoff-Burg, 2009; Taylor and Millier, 2015)

¹⁵² Cohen-Katz, J., Wiley, S.D., Capuano, T., Baker, D.M. , Shapiro, S. *The Effects of Mindfulness-based Stress Reduction on Nurse Stress and Burnout, Part II*, “Holist Nurs Pract” 2005, nr 19, p. 26–35.

the strong positive correlations between the mindfulness aspects, optimism and self-efficacy indicate how mindfulness may broadly expand an individual's resources, improve the skills to manage workplace demands, increase learning new skills in an intervention and decreases the mindfulness antidote of 'mindless' reactivity. Remaining non-judgmental and less reactive to the environment predicted lower levels of emotional exhaustion and cynicism. Scholars suggest that teaching strategies for meditation and including meditation as part of health and safety or wellbeing activities in the workplace can be a simple and effective strategy for organizations. Parallel studies of Taylor (2013) exhibit that mindfulness increased when meditation intervention was practiced every day, or every other day, while interestingly, the length of the of the session length was less important¹⁵³.

The above results were confirmed by meta-analysis of Vonderlin et al. (2020) and exhibited that mindfulness-based programs (MBPs) effectively reduce stress, burnout, mental distress, and somatic complaints, although improving mindfulness, well-being, compassion, and job satisfaction—each with small to large effect sizes ranging from Hedge's $g = 0.32$ to 0.77 . Effects were affirmed in follow-up assessments ≤ 12 weeks¹⁵⁴.

It is also worth noting that, as presented by Listopad et al. (2021), the risk of burnout is reduced when individuals perceive their work as meaningful and appreciate the culture at their workplace¹⁵⁵. Moreover various studies (e.g. Gaspar et al., 2018; Hülshager et al., 2013; Shonin et al., 2014; Wolever et al., 2012) exhibits that after employees experience mindfulness-related training or programs, they are more likely to change their cognitive, affective, and emotional aspects in a positive way, increase their positive affects and sleep quality, they showing better self-efficacy, and personal wellbeing, and it can contribute to reducing or decreasing individuals' anxiety, burnout, distress, emotional exhaustion, fatigue, and negative affect, stress and turnover intention in the workplace¹⁵⁶.

Therefore, mindfulmanagement, which develops leaders' self-awareness and sensitivity to impact on employees' lives, leads to value-driven leadership and mindful relationships, as

¹⁵³ Taylor, N.Z. , Milliar, P.M.R. *The contribution of mindfulness to predicting burnout in the workplace*. "Pers Individ Dif" 2016, nr. 89, p. 123–128.

¹⁵⁴ Vonderlin, R., Biermann, M., Bohus, M. , Lyssenko, L. op. cit.

¹⁵⁵ Listopad, I.W., Esch, T. , Michaelsen, M.M. *An Empirical Investigation of the Relationship Between Spirituality, Work Culture, and Burnout: The Need for an Extended Health and Disease Model*. "Front Psychol" 2021, nr 12.

¹⁵⁶ Johnson, K.R., Park, S. , Chaudhuri, S. *Mindfulness training in the workplace: exploring its scope and outcomes*, "European Journal of Training and Development" 2020, nr 44, s. 341–354; Pérez-Fuentes, M. del C., Molero Jurado, M. et.al. op. cit.; Wrede, S.J.S., Esch, T. , Michaelsen, M.M. *Mindfulness in the Digital Workplace: an explorative study of the compatibility of mindfulness and technology*, 2023

well as improving flexibility and emotional intelligence, should be considered as an accurate means of burnout mitigation. Additionally, leaders and employees, by practicing mindfulness and constant self-development, achieve personal growth in emotional intelligence, empathy, and compassion. They can flourish.

Conclusions

Above review presented a theoretical and practical trajectory of mindful management by sequential integration of recent fragmented scholarly work on meditation and mindfulness at the workplace. The causative processes due to higher mindfulness that generate positive cognitive, emotional, physiological, and behavioral outcomes include flourishing, flow, focused attention, present moment awareness, non-judgmental acceptance, self-regulatory functions, lower mind wandering, lower habit automaticity, and self-determination lead to burnout mitigation. As Good states, consideration of the evidence on meditation at work stimulates important questions and challenges key assumptions within management science, generating an agenda for future research¹⁵⁷. It is also worth to refer to Bunjak et al.¹⁵⁸ that the next field which should be investigated on the team and organizational levels is the collective mindfulness. Accordingly, our next research will explore the impact of short 8 minutes mindfulness interventions on employees on management level and on their cognitive abilities such as memory, concentration and attention as well as well-being. We will also present the concept of neuro-mindfulness, which is parallel to mindful management, i.e., management based on consciousness, awareness, knowledge, and full openness to deeper values. Currently, the challenges of our times also established under the concept of Industry 5.0. indicates that it is necessary to verify actual management approaches. It would be crucial to focus on self-awareness, values, which also are gaining new meanings and dimensions. Hence man needs to be clearly separated and defined from AI, and the only possible area is self-awareness. So, it can be concluded this would be the key word that would probably set trends in management and human sciences.

¹⁵⁷ Good, D.J. et al. op. cit.

¹⁵⁸ Bunjak, A., Černe, M., Schölly, E.L., op. cit.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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PROSZĘ O STRESCZENIE TAKŻE W JĘZUKU POLSKIM

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**Prevent Employees from burnout with Mindfulmanagement and lead them to
flourishing**

Summary

Mindfulness research activities are flourishing within organizational science. Not only is there evolving evidence across multiple fields that indicates that mindfulness is essentially linked to many aspects of workplace functioning and preventing burnout, but also this knowledge base has not been systematically integrated up to date. This review coalesces the burgeoning body of mindfulness scholarship into a framework to guide mainstream management research to investigate a broad range of constructs. We would like also to introduce the new concept of mindfulmanagement.

The framework identifies how mindfulmanagement could prevent burnout and influences various significant aspects and skills of self and workplace functioning like: self-awareness, critical thinking, stoic – negative capability, engagement, health benefits, attention, cognitive abilities – memory and ability to flexibly switch ideas, creativity, flow, emotion regulation, positive affect, psychological growth – flourishing, optimization, mental health, metacognition, decentration, flexibility, resilience and self-regulation body self-awareness, motivation, workplace spirituality, job satisfaction, wellbeing.

Ultimately, these domains impact key workplace outcomes. Should we consider the evidence on mindfulness at work, it will stimulate important questions and challenge key assumptions within management science, generating an agenda for future research. A relatively small amount of research oscillated around using mindfulness as a tool to increasing management efficiency and prevent burnout. Presented review aims to catch up on these backlogs and to provide a basis for further research on the use of mindfulmanagement in the organizational area.

Keywords

Management, Industry 5.0, mindfulness, burnout, depression, employees development, work 4.0

Streszczenie

Badania nad mindfulness rozwijają się dynamicznie również w obszarze nauk o zarządzaniu i organizacji. Dowody z badań pochodzące z różnych dziedzin wskazują, że mindfulness jest istotnie powiązany z wieloma aspektami funkcjonowania w miejscu pracy oraz z

zapobieganiem wypaleniu zawodowemu. Dotychczas jednak wiedza ta nie została zaprezentowana w sposób systematyczny i zintegrowany. Niniejszy przegląd łączy rosnącą liczbę badań nad mindfulness w obszarze zarządzania oraz uwypukla ich znaczenie w kluczowych obszarach. Wprowadzona zostaje ponadto koncepcja – **mindfulmanagement**.

W prezentowanych ramach wskazuje się, w jaki sposób mindfulmanagement może zapobiegać wypaleniu zawodowemu oraz wpływać na różnorodne istotne aspekty i umiejętności związane z funkcjonowaniem jednostek i organizacji, takie jak: samoświadomość, myślenie krytyczne, stoicka zdolność negatywna, zaangażowanie, korzyści zdrowotne, uwaga, zdolności poznawcze (np. pamięć i elastyczność w przełączaniu się między pomysłami), kreatywność, przepływ (flow), regulacja emocji, pozytywne afekty, rozwój psychologiczny (flourishing), optymalizacja, zdrowie psychiczne, metapoznanie, decentralizacja, elastyczność, odporność, samoregulacja, świadomość ciała, motywacja, duchowość w miejscu pracy, satysfakcja zawodową oraz dobrostan.

Obszary te, jak wskazują liczne badania, wpływają na kluczowe wyniki w miejscu pracy. Rozważenie dowodów na temat zastosowania mindfulness w pracy może inspirować ważne pytania badawcze i kwestionować podstawowe założenia w naukach o zarządzaniu, tworząc tym samym agendę dla przyszłych badań. Dotychczas niewielka liczba badań koncentrowała się na wykorzystaniu mindfulness jako narzędzia zwiększającego efektywność zarządzania i zapobiegania wypaleniu zawodowemu. Prezentowany przegląd ma na celu nadrobienie tych zaległości oraz dostarczenie podstaw do dalszych badań nad zastosowaniem mindfulmanagement w obszarze organizacyjnym.