

# EVALUATING DOMINANT “HEALTHY WORKPLACE MODELS” FROM THE PERSPECTIVE OF POSITIVE PSYCHOLOGY PRINCIPLES

## MEGHATÁROZÓ “EGÉSZSÉGES MUNKAHELYMODELLEK” ÉRTÉKELÉSE A POZITÍV PSZICHOLÓGIAI ALAPELVEK SZEMPONTJÁBÓL

Through systematic research of the existing literature, this paper identifies the most dominant theoretical frameworks in the healthy workplace research field and evaluates them from the perspective of the PERMA model (positive emotion, engagement, relationships, meaning, and accomplishments) of positive psychology. Building on the conclusions of an in-depth analysis a synthesized model, the *Comprehensive Model of Healthy Work and Happiness* is developed, aiming to connect the strengths of the existing influential healthy work models and the perspectives of positive psychology. This model provides a novel theoretical framework to guide both empirical researchers and business practitioners working toward healthy workplaces.

**Keywords:** healthy workplace models, employee well-being, work stress, healthy organizations, healthy society, positive psychology, PERMA model, Comprehensive Model of Healthy and Happiness

A tanulmány szisztematikus szakirodalmi kutatás révén azonosítja az egészséges munkahelyekre irányuló kutatások legdominánsabb elméleti kereteit, melyek értékelésére a pozitív pszichológia PERMA-modellje (pozitív érzelmek, elkötelezettség, kapcsolatok, értelemteliség, teljesítés) szerint kerül sor. A mélyreható elemzés következtetéseire építve egy új szintetizált modellre tesznek javaslatot a szerzők. Az *Egészséges Munka és Boldogság Átfogó Modelljét* azzal a céllal dolgozták ki, hogy összekapcsolja a meghatározó egészségmodellek erősségeit és a pozitív pszichológia perspektíváit. Ez a modell új elméleti keretet kínál az egészséges munkahelyekért dolgozó empirikus kutatók és vállalati szakemberek számára.

**Kulcsszavak:** egészségesmunkahely-modellek, alkalmazotti jóllét, munkahelyi stressz, egészséges szervezetek, egészséges társadalom, pozitív pszichológia, PERMA-modell, egészséges munka és boldogság átfogó modellje

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The topic of workplace health has drawn significant attention from both key policymakers, researchers, and business practitioners starting at the early twentieth century and especially during the rebuilding years following the Second World War, which included the newly formed World Health Organization (WHO) in this discourse and activities. Despite several decades of active political, academic, and business oriented discussions and an overwhelming number of diverse contributions, the chal-

lenge of establishing widely available healthy workplaces remains a largely unsolved problem.

Arguments are particularly strong for the business case of healthy work based on the lost performance in corporations and public healthcare costs (Avramchuk & Carpinion, 2017). However, in the last years we can observe a clear shift towards the creation of immaterial values, like employee commitment and health as a resource (Stocker, 2013). An abundance of scientific literature can be iden-

tified on the role of immaterial factors in value creation, strongly influencing the research areas of sustainable organizations (Wolters, 2013), knowledge management (Sutjaritwattana, 2012) and management control, measurements, and reporting (Velte & Stawinoga, 2017).

*'Developing healthy work and workplaces has become an important topic for organizations and researchers alike'* (Kelloway & Day, 2005, p. 223). Work can be not just the causal factor in mental or physical illness but also a potential health resource protecting from ill health and a key contributor to human flourishing and happiness (Kelloway & Day, 2005). The emphasis of our research is on expanding the field of research and practice of healthy workplace practices toward the inclusion of positive psychology principles. This broadening of the analytical perspective will strengthen the importance of preventive and proactive practices and accentuate responsibility taking at a personal, organizational, and societal level.

The purpose of our research is to identify dominant workplace health models in the academic literature and to evaluate them from the perspective of positive psychology. By using the PERMA model as our main measure of criteria, we therefore aim to advance the impact of positive psychology and provide empirical researchers and practitioners synthesized, conceptual, and theoretical foundations for a more well-rounded understanding and creation of healthy workplaces.

The next section of the article presents a conceptual overview of the important terms related to healthy workplace models. Following this, the methodology of our literature research and the selection process of dominant theoretical frameworks will be introduced and explained. In the final part of the paper, four models will be analysed in-depth from the perspective of positive psychology. The Seligman (2011) PERMA model was selected as the key positive psychology evaluation criteria due to its extensive impact on both the academic and practical discourse and the uniquely strong empirical support for the model as demonstrated by research data from a wide range of different organizational contexts (Khaw & Kern, 2015). Finally, we present a new synthesized theory for healthy work and happiness, incorporating the strengths of the currently dominant workplace health models and the PERMA model. We hope that this new model will provide researchers with a more comprehensive framework for empirical studies while also offering practitioners good guidance to proactively design healthy workplaces.

### Creating healthy workplaces: a conceptual overview

One of the key reasons behind the shortcomings in the research topic of healthy workplaces is conceptual fragmentation. A plethora of different theoretical approaches, concepts, and practical applications can be identified that are often loosely defined and inconsistently applied (Bakker & Demerouti, 2007). For this reason, in the next section of our paper, we will attempt to distinguish and define the key terms and concepts applied in our work.

### Health and well-being

A wide range of health definitions can be found in the literature on workplace health management, although there is scholarly consensus that health is a multidimensional construct that encompasses physical health, mental health, and social well-being. Burton (2010) argues that *'any definition of a healthy workplace should encompass the WHO definition of health'* (Burton, 2010, p. 15), that is, *'A state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity'* (WHO, 2006, p.1). Physical health refers to the absence of illness and the presence of physical fitness and vitality, while mental health involves the ability to cope with stress and emotional challenges and maintain a positive outlook on life. Social health is related to the quality of social relationships and connections, as well as the ability to participate in social activities and networks.

*Well-being* is a broader concept that includes subjective experiences of happiness, satisfaction with life and fulfilment, as well as objective indicators such as income, education, and health status (Diener et al., 2010). Warr (2007) defines work-related well-being as the overall quality of an employee's experience and functioning at work. Well-being is also a multidimensional construct that encompasses various domains of life, encompassing physical, emotional, social, and spiritual dimensions. It consists of hedonic and eudaimonic aspects and is influenced by various factors, including genetics, environment, lifestyles, and social support.

### Stress and workplace stress

Stress is a physiological and psychological response to perceived threats or challenges (Selye, 1956). Selye's seminal work is an important starting point for our research by highlighting the opportunity for positive experiences and outcomes at work through the notion of *'eustress'*. Stress is a natural and necessary response that helps people cope with difficult situations, but chronic stress (distress) can lead to adverse health outcomes, including cardiovascular disease, depression, and anxiety (Cohen et al., 2007). Over the years, various definitions have been applied to the stress phenomenon (Holmes & Rahe, 1967; Lazarus & Folkman, 1984). A key contribution to properly applying the concept of stress to healthy workplaces is provided by Kahn and Byosiere (1992) who propose defining and understanding stress as an interactive process in which *"...environmental conditions and events induce personal consequences..."*. The above-mentioned general definitions of stress have been further developed for understanding conditions and events related to work; thus, the concepts of job stress and workplace stress were introduced and studied extensively through various models of workplace stress (Karasek, 1979; Edwards et al., 1990; Siegrist, 1996).

### Healthy work and healthy workplaces

Healthy work is safe and fulfilling and allows people to achieve their potential. It involves a balance between job demands and resources, opportunities for development and growth, and supportive relationships with colleagues

and supervisors. Healthy work also includes work-life balance, flexible work arrangements, appropriate recognition, and rewards for achievements. Healthy work can improve physical and mental health, increase job satisfaction, and improve productivity and performance (Burton, 2010).

*'Healthy workplaces are those in which individuals flourish and organizations prosper'* (Cartwright & Cooper, 2009, p. 231). As defined by Sauter, Lim, and Murphy (1996, p.250), a healthy workplace is an organization that *"maximizes the integration of worker goals for well-being and company objectives for profitability and productivity."* In a healthy workplace, *"individuals can implement strategies that enable them to accentuate the positive and metabolize the negative with regard to their emotional experiences in order to increase organizational well-being"* (Cartwright & Cooper, 2009, p.225). Healthy workplaces are essential for promoting employee well-being and productivity. The World Health Organization (Burton, 2010) defines a healthy workplace as one that promotes the physical, mental and social well-being of employees and creates a productive environment that delivers high-quality products or services.

### Healthy organizations

Healthy organizations are those that prioritize sustainability, ethics, and social responsibility. They operate with transparency, accountability, and respect for human rights, and prioritize the well-being of their employees, customers, and communities. They have a positive impact on the environment, promote diversity and inclusion, and contribute to the social and economic development of their region (Porter & Kramer, 2011). Healthy organizations also prioritize innovation, collaboration, and continuous learning and improvement (Grant & Ashford, 2008). By focusing on these values, healthy organizations can create a positive impact on their stakeholders and society. The importance of the complex and multidimensional nature of the responsibility for developing workplace health has been emphasized by advanced models suggested by leading institutions, such as the Harvard Culture of Health model (Sorensen et al., 2021).

### Healthy society

Healthy societies are those that provide the conditions for individuals and communities to thrive physically, mentally, and socially. They prioritize health equity, social justice, and the reduction of health inequalities (Marmot, 2005). They provide access to quality healthcare, education, and social services, as well as safe and supportive physical and social environments. Healthy societies also promote economic growth, environmental sustainability, cultural diversity, and prioritize the protection of human rights and the empowerment of marginalized groups.

### Positive psychology and positive organizational research

Positive psychology has gained increasing attention in recent years and focuses primarily on the scientific study of positive human experiences, traits, and emotions, such as

happiness, well-being, resilience, gratitude, forgiveness, and flourishing in individuals and communities. This approach aims to promote positive aspects of human life, thus emphasizing the importance of positive emotions, engagement, relationships, meaning, and achievement, which are collectively known as the PERMA model (Seligman, 2011). A very important early contributor to the development of positive psychology was the Hungarian American researcher, Mihaly Csikszentmihalyi, whose theory of Flow has described and explained the conditions of a state in which *"...people are so involved in an activity that nothing else seems to matter..."* (Csikszentmihalyi, 2002, p. 4).

Positive organizational research emerged in the early 2000s and focuses on the study of positive aspects of organizations, such as employee engagement, job satisfaction, and organizational effectiveness. Positive organizational research also emphasizes the importance of positive leadership, such as transformational and servant leadership, which are characterized by empowering and supporting employees, creating a positive work environment, and fostering a sense of purpose and meaning (Avolio & Gardner, 2005). The empirical validation and development of the PERMA model has played a significant role in the direction of this research. Multiple versions of related questionnaires have been developed and tested successfully in diverse contexts (Pataki-Bittó, F., 2021; Kun et al., 2017).

One of the key constructs that have emerged from these fields is the idea of *psychological capital*, which refers to an individual's positive psychological state characterized by the presence of four core components: hope, self-efficacy, optimism, and resilience (Luthans et al., 2007). Psychological capital has been shown to be a key predictor of job satisfaction, work engagement, and performance, as well as mental and physical health (Avey et al., 2010).

The combination of the positive psychology perspective with the currently dominant healthy workplace models offers a highly promising and well-rounded framework for further research. To provide a systematically developed theoretical basis for this synthesizing effort, a methodology for identifying dominant workplace health models is presented. Their evaluation is explained using the criteria of the PERMA model.

### Methodological process for selecting and evaluating healthy workplace models

As an initial step of developing our methodology, we have used the Scopus database of Elsevier, a reliable and widely accepted and utilized comprehensive collection of scholarly contributions in the field of organizational science (Anand, 2022; 2020; Tranfield et al., 2003). With the help of the Scopus database and a fine-tuned search of sources carefully developed in multiple steps, the most important publications in the field of 'healthy workplace models' were identified.

To understand the landscape of the literature on 'healthy workplace', the most important keywords of 1.

‘health’ 2. ‘wellbeing’ and 3. ‘stress’ were included. Careful attention was paid to include all possible formulations and combinations of these words, such as using the noun ‘health’ or its adjective form ‘healthy’. Similarly, no relevant articles were omitted because of diverse grammatical uses of the word “well-being”.

In accordance with the aims of the research, all articles were traced that explore this phenomenon in a workplace context. Since the expressions used in this specific field of research on health are multitudinous, a broad research approach was adopted and all relevant and frequently used terms were included, such as 1. ‘work’ 2. ‘workplace’ 3. ‘organization’ and 4. ‘occupation’. The research included all versions of these terms paying attention to the noun (“occupation”) and adjective forms (“occupational”) of expressions and different versions of spelling.

The research expressly targeted the discovery of models and conceptual frameworks in the field of ‘healthy workplaces’. As such, the aforementioned combinations of keywords were supplemented with the appropriate synonyms. Thus, the keywords of 1. ‘model’, 2. ‘theory’ and 3. ‘framework’ were used during the Scopus search. All possible versions of these expressions were covered by including both singular and plural forms.

Following the primary recommendation of the methodological literature, we carried out our first search within the category ‘Article title, Abstract, Keywords’ of the Scopus database (Anand, 2022; Tranfield, 2003). In total, 42 combinations of the previously introduced keywords were used in our search attempt connected with an ‘OR’ logical command. As a result of this search, we identified 207 direct hits (academic records) that specifically included or mentioned some kind of ‘healthy workplace model’ in their titles, abstracts, or keywords.

Based on the relevant guidelines of methodological recommendations (Anand, 2022; Tranfield, 2003), we then continued to refine our research with the inclusion of academically justified filters. Our first search results were thus filtered according to the ‘language’ to include only English articles, according to the ‘source type’ to include only journal articles, and according to the ‘document type’ to include only articles, reviews, and editorials. The application of these filtering measures consequently reduced the number of articles to 167 direct hits.

In the next step of focusing our search we narrowed the results down by filtering them through the relevant subject areas. We limited our Scopus search to the scientific disciplines most relevant from the perspective of organizational science. Business, Management and Accounting, Psychology, Social Sciences, Arts and Humanities, Health Professions, and Multidisciplinary subject areas were included in the final stage of the search process. Concluding the refinement of our search in this way, we reached a final number of 94 Scopus indexed academic journal articles.

As a final step of the search process, the analysis was supplemented with an overview of Hungarian academic articles covering the topic. We concentrated the Hungarian language-based part of our research on the items available in the Corvinus University Budapest library search engine

and carried out targeted research for the journals *Budapest Management Review (Vezetéstudomány)*, *New Personal Review (Munkaiügyi Szemle)*, and the *Journal of Mental Health and Psychosomatics (Mentálhigiéne és Pszichoszomatika)* as the most relevant Hungarian academic journals.

We found a very limited number of academic articles that focus theoretically or philosophically on applying workplace health models (Dankó et al., 2022; Lázár, 2018; Jakab & Lázár, 2007). However, a significant number of studies were identified that apply work stress models or investigate employee health in various specific contexts through empirical studies (Hornay, 2019; Gál-Inges & Németh, 2015). In addition, we found a separate group of studies discussing methods, viability, and measurements of workplace health promotions (Bencsik, 2022; Gorgey-Hegyes et al., 2021; Szabó & Juhász, 2019a; Szabó & Juhász, 2019b; Péter et al., 2015), with a significant part of this literature focusing on the impact of physical activity and sport (Ács et al., 2020; Laczkó et al., 2022).

Analysing the literature from Hungarian scholars investigating the workplace health topic, we concluded that the researchers generally apply the same theoretical frameworks already identified in our earlier Scopus-based research. There is an emphasis on applying existing theories to specific contexts or vocational groups, and towards workplace health promotion. Most of these academic contributions are beyond the scope of our research, as we intend to focus on evaluating workplace health models that provide a comprehensive examinations or explanations of this phenomenon.

## Limitations of our methodological approach

In designing our literature analysis of workplace health models, we followed the guidelines recommended by Anand (2022) and Tranfield et al. (2003) and carried out limited research appropriate to the scope of our investigation. A significantly broader analysis could have been carried out by including additional databases like Google Scholar and without the application of the specified filters. According to the aforementioned guidelines, the application of the Scopus database and the recommended filters does not cause any significant decline in the quality of analysis.

The robustness of the analysis of the research literature could have been further advanced by checking the bibliography of the identified articles for further relevant articles and by additional bibliographic analysis of all citations, corrected by repeated use of the same authors. Such a detailed bibliographic analysis was beyond the scope of this paper; however, we recommend that further conceptual studies should expand upon our research in this direction.

## Evaluation of dominant healthy workplace models from a positive psychology perspective

According to the methodological process detailed above this section discusses the results of our systematic analy-

Table 1

Name of "Workplace Health Model"	Original Authors and Year of Publication	Number of times applied in selected literature (in order of frequency)	Central Concepts of Model (Beyond basic stress process concepts)	Inclusion of Positive Psychology Components according to the PERMA model				
				Positive Emotion	Engagement	Relationships	Meaning	Accomplishments
Job Demand-Control Model (JDC) Demand-Control-Support Model (DCS)	Karasek, 1979 Karasek and Theorell, 1990 Johnson and Hall, 1988 Karasek et al., 1998	21	Job Demands, Job Control (Dec. Latitude), Social Support	No	Yes	Yes (in advanced model)	No	Yes
Effort-Reward Imbalance (ERI)	Siegrist, 1996	16	Work Effort, Work Reward, Overcommitment	No	Partly	No	No	Yes
Job demands-resources (JD-R) Framework, Extended versions of Job demands-resources Framework	Demerouti et al., 2001 Bakker et al., 2003	8	Job Demands, Job Resources, Exhaustion, Cynicism	Yes	Yes	Yes	No	Partly
Workplace Psychosocial Safety Climate (PSC)	Dollard and Bakker, 2010	4	Psychosocial Safety Climate, Demands, Resources, Psychological health problems, Engagement	Yes	Yes	Yes	No	Partly
WHO's Healthy Workplace Framework	Burton (WHO), 2010	4	Psychosocial Work Environment, Physical Work Environments, Personal Health Resources, Enterprise Community Involvement, Leadership Engagement, Worker Involvement, Ethics and Values	Yes	Yes	Yes	Yes	Partly
Challenge-Hindrance Occupational Stress Model (CHM)	Cavanaugh et al., 2000	4	Hindrance Stressors, Challenge stressors	Yes	Yes	No	No	Partly
Name of „Workplace Health Model"	Original Authors and Year of Publication	Number of times applied in selected literature (in order of frequency)	Central Concepts of Model (Beyond basic stress process concepts)	Inclusion of Positive Psychology Components according to the PERMA model				
				Positive Emotion	Engagement	Relationships	Meaning	Accomplishments
Equity Theory and Organisational Justice Theory (OJ)	Adams, 1963 Greenberg, 1987 Cropanzano and Greenberg, 1997	3	Inputs, Outputs, Referent Other, Fair Balance Distributive Justice, Procedural Justice, Interpersonal Justice, Informational Justice	No	No	Yes (in advanced model)	No	Partly
Person-Environment Fit Model	French et al., 1982 Caplan, 1983	2	Objective/Subjective Person Objective/Subjective Environment Objective/Subjective Fit Contact with Reality Accuracy of Self-assessment	No	No	No	No	No
Posttraumatic Stress Disorder Model	Norman, 1982 APA's DSM-III, 1987	2	Alterations in arousal, Avoidance, Negative alterations in cognition and mood, Intrusions Psychological health problems, Engagement	Partly (in the inverse form)	No	No	No	No
Occupational Wellbeing Framework	Milbourn, 2020	2	Meaningful Activity, Participation, Subjective Experiences, Accomplishment, Pleasure, Coherence, Companionship, Competence, Identity	Yes	Yes	Yes	Yes	Yes
Additional Workplace Health Models identified in our research that were not evaluated in detail due to their lesser influence or empirical application among the reviewed articles: A Shortened Stress Evaluation Tool (ASSET), Burnout Management Model, CDC Prevention Workplace Health Model, Cognitive-Behavioural Theory, Cognitive Phenomenological Theory of Stress and Coping, Comprehensive Model of Bullying, Copenhagen Psychosocial Questionnaire Model, Dual Work Stress Model, Emotional Overload Theory, Extended Stress Model, Generic Work Stress Model, Integrative Occupational Stress-Model, Job Insecurity Climate Model, Health Model of Rational Emotive Behavioural, Health Action Process Approach, Healthy Organization Theory, Organizational Health Inventory Model, Nordic Occupational Health Model, Online Workplace Health and Well-being Evaluation Tool, Organisational Health Framework, Prevention Pyramid of Gant, Psychological Risk Assessment Framework, Reciprocity Theory, Safety Citizenship Behaviour Model, Theoretical Framework of Occupational Stress for IS Professionals, Work Stress Theoretical Framework, Workplace Bullying Model,								

Source: own creation

sis of Scopus indexed articles covering various models of healthy workplaces. In the first stage of our research project, we used a consistent, step-by-step approach to identify and select the relevant academic articles and the most dominant models for our evaluation.

In the table below (Table 1) we present the results of this analysis, including the names of the workplace health models, their original authors, and year of publication. Here, we chose to mention not just the primary author(s), but some additional seminal authors acknowledged in the literature as well.

In addition to the names of the models and original authors, the third column of Table 1 also includes the number of times the given workplace health model was applied as a central component of analysis among the 94 English-language articles investigated. This criterion was chosen to establish the order in which the models are presented in the table; thus, the theory with the highest frequency of application is presented in the first row of the chart. In the last row of page two of Table 1, a comprehensive list of all additional workplace health models identified is included. These models were not evaluated in detail due to their lesser influence or empirical application among the reviewed articles, or due to their specific emphasis on health promotion or individual behavioural change.

The third column of the table contains the central concepts for each workplace health model, going beyond the classic terminology of the general stress process (e.g., stressor, appraisal, coping, performance). The five columns on the left side of the table represent our evaluation of the models from the perspective of the PERMA model. We applied as our evaluation criteria the five components of this model (positive emotion, engagement, relationships, meaning, and accomplishments) due to their uniquely robust empirical support gleaned from research data from a broad array of different organisational contexts (Khaw & Kern, 2015). Our in-depth analysis aims to indicate whether a specific workplace health model directly includes or addresses these PERMA model elements. In so doing, we selected in the appropriate cells ‘Yes’ if the original author’s core explanation for the specific workplace health model directly included the respective component. We selected ‘Partly’ if the component was directly included in the description of the model, but in a significantly narrower interpretation than the understanding of the PERMA model. If only the upgraded models included the investigated component, we signalled this in parentheses and for those cases in which a model completely missed a PERMA component or was only indirectly connected to it, our evaluation was indicated as ‘No’.

Our systematic analysis of the selected articles clearly identified the most dominant models related to workplace health in the literature. Two models, the Demand-Control-Support Model (Karasek & Theorell, 1990) and the Effort-Reward Imbalance Model (Siegrist, 1996), often referred to as ‘balance models’ (Bakker & Demerouti, 2006) were proven to be the most widely used, with 21 and 18 cases, respectively. This can be explained by the number of years academic authors had a chance to apply them, just

as with their relative simplicity, which allows for a more general and flexible combinatory utilization in empirical research. Although serious concerns have emerged about the relevance of these models in specific contexts (Bakker & Demerouti, 2006), from the observed academic practice an obvious preference of researchers for the inclusion of these models could be concluded. A frequently followed research approach in workplace health studies is to use one or both popular models, analysing the organizational stress process through these (Szilas, 2019) and supplementing them with some clinical measures of physical or mental health outcomes.

The third most significant model for workplace health according to our analysis is the Job Demands-Resources Framework (Demerouti et al., 2001). The development of this model aimed to correct the shortcomings of the two models mentioned above, explicitly in the area of various resources of coping and health. Dollard and Bakker (2010) continued to broaden this model and created a new model, the Workplace Psychosocial Safety Climate Model (PSC), even more explicitly centred upon organizational policies and procedures and focusing especially on psychosocial risks and a favourable organizational climate. These two models are listed as the third and fourth most frequently applied approaches to explain health in the workplace and are expected to gain popularity over the coming years due to their broader and more positive conceptual construct.

The fifth healthy workplace model in our analysis is the WHO Healthy Workplace Framework (Burton, 2010), which was developed from a distinctively different intellectual origin. At the same time, it is interesting to note, that the date of the first publication of the model is identical with the Workplace Psychosocial Safety Climate Model (Dollard & Bakker, 2010), and there is a significant overlap between the central concepts of the two models (Psychosocial Environment/Risk, Resources and Engagement). The WHO model, however, offers an expanded scope and an improved applicability to the development of pragmatic organizational interventions and health promotion programs (Bencsik, 2022; Gorgenyi-Hegyes et al., 2021; Szabó & Juhász, 2019a; Szabó & Juhász, 2019b).

The Challenge-Hindrance Occupational Stress Model of Cavanaugh et al. (2000) is listed as the sixth most frequently appearing model in our literature research. This fundamentally binary model differs from the “balance” models in its emphasis on an *a priori* differentiation of stressors as challenges or obstacles. The model has been applied in a significant number of empirical studies and received strong criticism suggesting that even the core idea of an *a priori* differentiation of stressors should be avoided (Mazzola & Disselhorst, 2019) due to the highly subjective nature of the stress process and personal assessment (Lazarus & Folkman, 1984).

The next item on our list refers to the category of papers that are identified as affording a central role to Organizational Justice Theory (Greenberg, 1987) or the Equity Theory of Adams (1963). The latter theory is a seminal work in the field of organizational justice research (Szilas, 2011); therefore, we have handled these as one closely re-

lated group of research. This approach can also be considered a ‘balanced model’, however, in contrast to Siegrist’s focus on organizational justice ‘overcommitment’, it emphasizes the importance of a ‘referent other’. Furthermore, the two models have influenced somewhat different groups of academic researchers. The Effort-Rewards Imbalance Model of Siegrist (1996) has gained popularity primarily in the medical and public health literature, whereas Organization Justice Theory has become an important conceptual framework in organizational science (Greenberg, 1987).

The model next in ranking is the Person-Environment Fit Model (French et al., 1982). Although this approach has been an influential model in general stress research and has inspired many academics over the years (Edwards & Cooper, 1990; Edwards et al., 1998), its empirical application lags substantially behind the workplace health models described above. This could be explained mainly by the insufficient explanation of the model given to the dimensions of the person and the environment, which requires the expansion of the framework toward other content theories (Edwards et al., 1998).

The subsequent model in our collection is the Posttraumatic Stress Disorder Model (Norman, 1970) which is a very important conceptual framework centring around a concrete psychiatric diagnosis officially first introduced in 1987 (DSM-III, 1987). The original application of the PSDM is closely related to veterans of the Vietnam War (Norman, 1982). Since it was introduced, this model has been most influential in the literature that examines health in military organizations and professions. The applicability of the model tends to increase to a larger number of social and organizational contexts, focusing more on the consequences of traumatic events than generally on health in organizations (Ehlers & Clark, 1999).

The final workplace health model evaluated in our chart is the Occupational Wellbeing Framework (Milbourn, 2020). This model stands out from the list due to its novelty and congruence with the PERMA model. We see significant potential in this model, even though its application has been limited to Australia and particularly community spaces targeting the elderly (Milbourn, 2020; Vyas & Quental, 2023). A more accurate explanation and operationalization of the model could make this a preferred framework for workplace health researchers who want to include positive psychology principles.

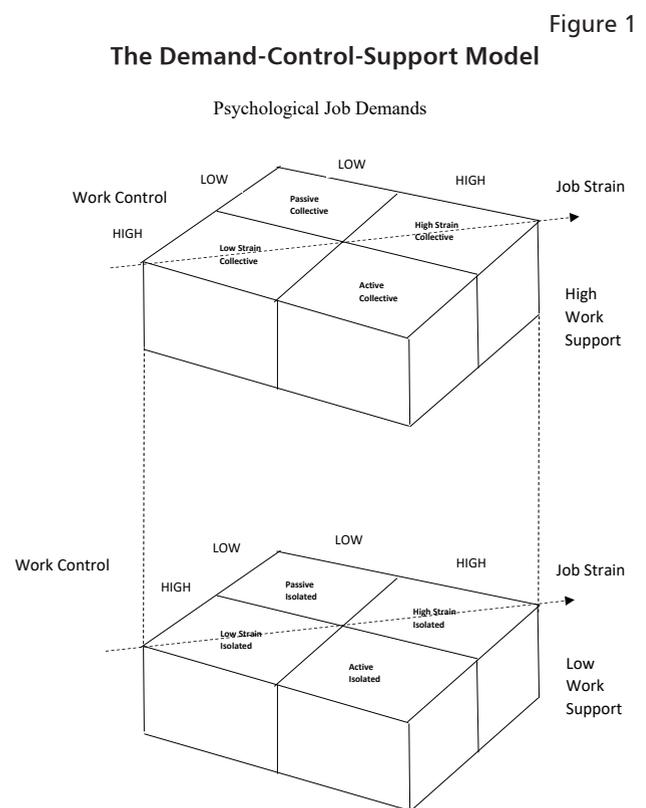
In the next section of our paper, four impactful and empirically significant models of workplace health will be subjected to a more in-depth analysis. We selected the Demand-Control-Support (DCS) model of Karasek and Theorell (1990) and the Effort-Reward Imbalance (ERI) model of Siegrist (1996), since these ‘balance models’ have become the first generation of workplace health models and to date have a global impact. We also selected for detailed analysis the Workplace Psychosocial Safety Climate Model of Dollard and Bakker (2010) and the WHO Healthy Workplace Framework (Burton, 2010) as their influence has increased in recent years and can be considered the

second generation of successful workplace health models, broadening their theoretical constructs towards resources and positive organizational and health outcomes.

Among the most frequently applied theoretical models identified in our literature research, we decided not to include the Job Demands-Resources Framework of (Demerouti et al., 2001) as it is fundamentally an earlier, less advanced version of the Workplace Psychosocial Safety Climate (PSC) Model. In addition, we omitted detailed analysis of the Challenge-Hindrance Occupational Stress Model (Cavanaugh et al., 2000), as the serious conceptual critiques the theory has received does not give this framework a positive outlook for future empirical applications. Besides the visual representation and explanation of the selected four models, we provide a detailed discussion of their relation to the PERMA model elements (Seligman, 2011).

### Evaluation of the Job-Demand Control (JDC) and Demand-Control-Support (DCS) Models

The Job-Demand Control Model (JDC) and its improved version, the Demand-Control-Support Model (DCS), were initially introduced in the academic literature by Karasek (1979). Figure 1 presents the DCS model (Karasek & Theorell, 1990; Johnson & Hall, 1998; Karasek et al., 1998) which represents the most frequently used workplace health model.



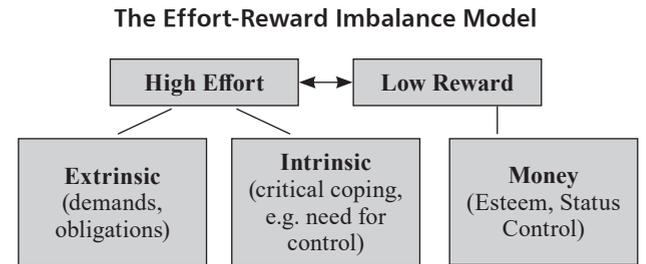
Source: Johnson & Hall (1988, p.1336)

The upgraded three-dimensional model (Johnson & Hall, 1988; Karasek & Theorell, 1990) builds on the main

strength of the ‘balance models’ by placing the focus of investigation on the relationship of three key components characteristic of the work. In this framework, the term *work control* expresses different modes of worker’s decision latitude and autonomy in their job. The level of control of *work* is analysed in combination with the *psychological demands of work* and *work support*, which the authors understand as the level of social support related to work that could be received from both peers and supervisors. The most significant conclusion of empirical research built on this model is that high *psychological job demands* do not automatically result in adverse health consequences. In combination with high levels of *work control* and *work support*, high levels of *psychological job demands* can create favourable conditions for an experience of *eustress* (Selye, 1956). Jobs that carry these characteristics are described as *active collective jobs* in the DCS model and are associated with a significantly reduced risk of negative health outcomes and high potential for personal growth and organizational performance (Johnson & Hall, 1988; Karasek et al., 1998). The relations of key components of the DCS model to the elements of the PERMA model are illustrated in Table 2.

often used in combination with the Demand-Control-Support (DCS) Model (Karasek et al., 1998). The model shows a great amount of similarity to Equity Theory (Adams, 1963) and can be considered as a valuable supplement to the already spacious field of Organizational Justice (OJ) literature (Greenberg, 1987). In Figure 2 the central idea of the model is depicted as originally argued by Siegrist (1996).

Figure 2



Source: Siegrist (1996, p. 30)

The Effort-Reward Imbalance model emphasizes the appearance of job strain out of the perceived and experi-

Table 2

The Demand-Control-Support Model and Elements of PERMA

	Directly related components of the DCS Model	Indirectly related components of the DCS Model	Explanation of connection to elements of PERMA model
<i>Positive Emotion</i>	N.A.	Work Control Social Support	The DCS model does not contain direct references to positive emotion, however, indirectly both the <i>work control</i> component (through an opportunity of focusing on personal interests and compassions) and the <i>social support</i> component (via living through experiences of being cared for) can be associated with it.
<i>Engagement</i>	Work Control Psychological Job Demands	Social Support	The DCS model’s <i>work control</i> and <i>psychological job demands</i> components are very closely and directly related to engagement via the autonomous decisions of workers to choose conditions and characteristics of their job activities most appropriate for their strengths and preferences.
<i>Relationships</i>	Social Support	N.A.	The novel <i>social support</i> component of the DCS model is very closely and directly connected to relationships, especially through feeling supported by supervisors or peers during difficult challenges and frustrations at work.
<i>Meaning</i>	N.A.	N.A.	None of the DCS model’s components strongly emphasize the importance of meaning.
<i>Accomplishments</i>	Psychological Job Demands Work Control	N.A.	Both the <i>psychological job demands</i> and <i>work control</i> components in the DCS model are directly connected to achievement. Positive outcomes, however, are more strongly associated with self-chosen, intrinsic goals.

Source: authors’ compilation

### Evaluation of the Effort-Reward Imbalance (ERI) Model

The Effort-Reward Imbalance (ERI) Model (Siegrist, 1996) is the second most frequently applied workplace health model, particularly in the medical literature, but also very

encountered imbalance between *effort* (a combination of extrinsic job demands and intrinsic motivation to meet these) and *reward* (which can be understood as compensation, different forms of esteem or attainable status). In cases of high effort meeting low reward in a workplace, the imbalance and lack of reciprocity will create high levels of

arousal and strain and potentially a series of empirically proven negative health consequences (Van Vegchel et al., 2005). The person-specific component introduced by Siegrist (1996) is *overcommitment*, which is defined as an excessively striving attitude towards being approved and esteemed. De Jonge et al. (2000) show that *overcommitment* is capable of functioning as a *moderator* variable, thus increasing the experienced strain resulting from an imbalance between *high effort* and *low reward*. The relations of key components of the ERI model with the elements of the PERMA model are depicted in Table 3.

## Evaluation of the Workplace Psychosocial Safety Climate (PSC) Model

The Workplace Psychosocial Safety Climate (PSC) Model (Dollard and Bakker, 2010) can be considered a next-generation workplace health model, although its origins can be traced back to the DCS and ERI models. Demerouti et al. (2001) and Bakker et al. (2003) outline several significant shortcomings of these early ‘balance models’ and propose an intermediate, but empirically often utilized, upgraded model, the Job Demands-Resources (JD-R)

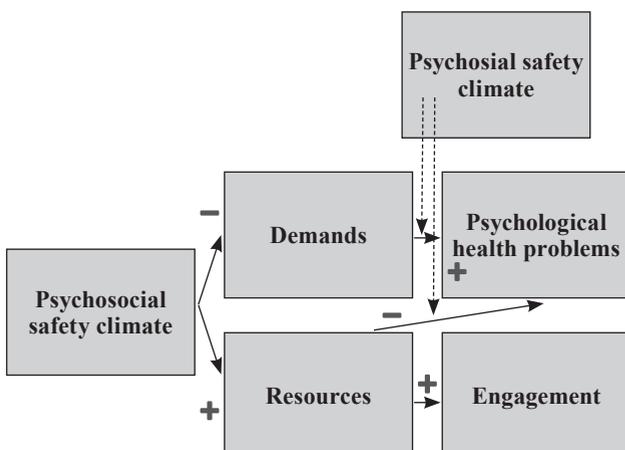
Table 3

The Effort-Reward Imbalance Model and Elements of PERMA

	Directly related components of the ERI Model	Indirectly related components of the ERI Model	Explanation of connection to elements of PERMA model
<i>Positive Emotion</i>	N.A.	Reward Over-commitment (inversely)	The ERI model does not contain direct references to positive emotion, however, indirectly both the <i>reward</i> component and the <i>overcommitment</i> can be associated with this. The model’s emphasis on <i>rewards</i> assumes their dominant role in the development of desired positive emotions. On the other side, <i>overcommitment</i> may contribute to an ill-conceived habituation of excessive attitudes detrimental for positive emotions.
<i>Engagement</i>	High Effort (Intrinsic part) Over-Commitment (inversely)	N.A.	The ERI model’s <i>high effort</i> and <i>overcommitment</i> components are both very closely and directly related to engagement. In particular, the intrinsic part of <i>high effort</i> behaviour can be strongly associated with this. <i>Overcommitment</i> may appear in practice very similar to engagement. However, from a long-term perspective, the underlying psychological needs and emotions make it expressly harmful for both the individual and the organization.
<i>Relationships</i>	N.A.	N.A.	None of the ERI model’s components emphasize strongly the importance of relationships.
<i>Meaning</i>	N.A.	N.A.	None of the ERI model’s components strongly emphasize the importance of meaning.
<i>Accomplishments</i>	High Effort (Intrinsic part) Over-commitment (inversely)	N.A.	The intrinsic part of ERI model’s <i>high effort</i> component can be directly connected to achievement, as intrinsic goals are proven to have a strong correlation with wellbeing. <i>Overcommitment</i> , on the contrary, may function as a long-term unsustainable approach unable to genuinely deliver the desired accomplishments.

Source: authors compilation

Figure 3  
The Workplace Psychosocial Safety Climate Model



Source: Dollard and Bakker (2010, p.582.)

model (Demerouti et al., 2001). This development is in line with the principles of positive psychology in focusing on the availability of resources to the individual, which was elevated to a new level with the introduction of the PSC Model. This framework has placed organizational components like safety climate at the heart of the model (Dollard and Bakker, 2010). In Figure 3 we present the PSC model according to the original publication.

The Workplace Psychosocial Safety Climate Model is a framework that aims to broaden the scope of earlier models in the direction of explaining the organizational-level origins of job demands and resources. Therefore, the *psychological safety climate component* (PSC) refers to workplace policies, practices, and procedures that are fundamentally influenced by the “frame of reference” and leadership philosophy of senior management (Dollard & Bakker, 2010). The PSC precedes the components of the work context, such as *job demands* and *resources*, that predict the outcomes of workplace health and employee

participation. *The psychosocial safety climate* is related to perceived freedom from psychosocial risk and harm at work, resulting from the perceived commitment of management to associated values, principles, and practices (Rasmussen et al., 2006, p. 770). The relations of key components of the PSC model with the elements of the PERMA model are depicted in Table 4.

The model defines eight steps that are part of the continual improvement process; however, it does not directly specify recommended values and ethics, as they are considered in this model the explicit representations of the organizational culture. The relations of key components of the WHO model with the elements of the PERMA model are depicted in Table 5.

Table 4

The Workplace Psychosocial Safety Climate Model and Elements of PERMA

	Directly related components of the PSC Model	Indirectly related components of the PSC Model	Explanation of connection to elements of PERMA model
<i>Positive Emotion</i>	Engagement Resources Psychosocial Safety Climate	N.A.	The PSC model contains direct connections to positive emotions via its positive process through <i>resources</i> and <i>engagement</i> and moderated by the component of <i>psychosocial safety climate</i> .
<i>Engagement</i>	Engagement	Resources Psychosocial Safety Climate	The PSC model has an identically named <i>engagement</i> component, which carries approximately the same meaning as in the PERMA model. The engagement component in PSC is influenced by the <i>resources</i> and <i>psychosocial safety climate</i> components as well.
<i>Relationships</i>	Resources	N.A.	The PSC model's <i>resource</i> component includes as a fundamental part the collegial, team and supervisor level support and relationships.
<i>Meaning</i>	N.A.	N.A.	None of the PSC model's components emphasize strongly the importance of meaning.
<i>Accomplishments</i>	N.A.	Resources	The PSC model's <i>resource</i> component includes autonomy and the opportunity for intrinsic goal setting that can be indirectly connected to achievement.

Source: authors' compilation

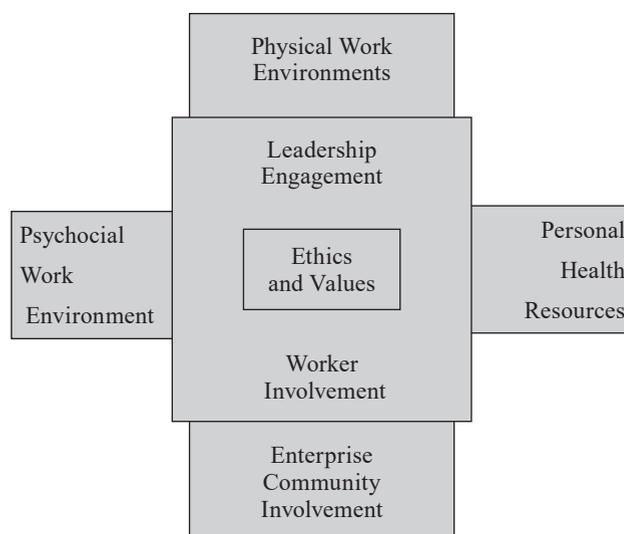
### Evaluation of the WHO Healthy Workplace Framework

The WHO Healthy Workplace Framework (Burton, 2010) is one of the most influential next generation models, particularly significant in the development of workplace health promotion programs and to a slightly lesser degree in theoretical conceptualizations of healthy workplaces. Four avenues are distinguished in the model, such as *physical work environment*, *psychosocial work environment*, *enterprise community involvement*, and *personal health resources*. *Ethics and values* are at the heart of the model and are considered important parts of *leadership participation* and *worker involvement*. The model indicates that the creation of a healthy workplace is a continuous improvement process. In Figure 4 we present the original publication authored by Burton (2010) and published by the WHO.

According to the WHO Healthy Workplace Framework, the avenue of personal health resources contains all kinds of workplace health promotion activities (e.g., fitness and wellness opportunities, eating options, medical services). Enterprise community involvement includes all the activities that influence the context in which the company operates (e.g., CSR activities, controlling pollution emissions, encouraging public transportation, and bicycle usage).

Figure 4

The WHO Healthy Workplace Framework



Source: Burton - WHO (2010, p. 98)

Table 5

WHO's Healthy Workplace Framework and Elements of PERMA

	Directly related components of the WHO Model	Indirectly related components of the WHO Model	Explanation of connection to elements of PERMA model
<i>Positive Emotion</i>	Personal health resources	Worker involvement Psychosocial work environment	The WHO model contains direct connections to positive emotions via its <i>personal health resources</i> component and indirectly through its <i>worker involvement</i> and <i>psychosocial work environment</i> components.
<i>Engagement</i>	Leadership Engagement Worker Involvement	Psychosocial Work Environment	The WHO model's <i>worker involvement</i> and <i>leadership engagement</i> components directly connect to the element of engagement, and it is also indirectly connected to the component <i>psychosocial work environment</i> .
<i>Relationships</i>	Personal Health Resources	N.A.	The WHO model's personal health resource component includes the collegial, team and supervisor level support and relationships.
<i>Meaning</i>	Enterprise Community Involvement	Worker Involvement	The WHO model's <i>enterprise community involvement</i> component directly connects to the element of meaning, whereas the <i>worker involvement</i> component is indirectly associated with it.
<i>Accomplishments</i>	N.A.	Personal Health Resources	The WHO model's <i>personal health resource</i> component through autonomy and the opportunity for intrinsic goal setting can be indirectly connected to achievement.

Source: authors' compilation

## Conclusion and Introduction of a New Comprehensive Model

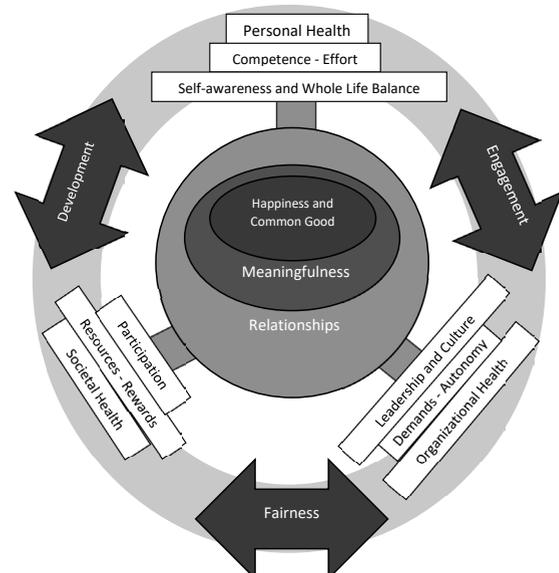
Based on our review of the most dominant healthy workplace models in the academic literature and the detailed evaluation of dominant frameworks from the perspective of positive psychology, we conclude it to be a very meaningful and forward-looking pursuit to advance the connection of these largely reconcilable and supplementary approaches. The large number of diversified models and theoretical constructs restrains advances and successful practical applications. Therefore, a significant number of scholars have attempted to create novel, combinatory or context-specific models; however, only a few of them achieved broad attention and empirical validation.

Under these circumstances, it is difficult to choose between the application of insufficiently fitting theoretical models or the development of a new synthesized model that has a relatively low probability of achieving a strong impact in a diverse scholarly literature. After careful consideration, we decided against existing models and introduce a new model in Figure 5 that incorporates a comprehensive understanding of workplace health and offers prospective users a flexible opportunity for empirical application. It goes beyond the level of theoretical development presented in the Occupational Wellbeing Framework by Milbourn (2020) which provides only a limited explanation of the interconnection between theoretical components and lacks the necessary foundations for designing effective research and measurement methods.

In this final section, we introduce our *Comprehensive Model of Healthy Work and Happiness* (Figure 5). This includes a detailed description of the components of the model and an explanation of the relations between the elements.

Figure 5

### Comprehensive Model of Healthy Work and Happiness



Source: developed by Roland Ferenc Szilas

A complex and multidimensional understanding of health (WHO, 2010) creates the basis of the model as a vulnerable resource in a highly interdependent contextual framework. *Organizational (workplace) health* is hardly separable from *personal health* and *societal health*; therefore, the relations of these three components are fundamentally bidirectional as depicted in the two-way arrows in the figure. The arrows also contain in text form the main logic of connection between these health areas. Between the organization and the person, the importance of engagement is highlighted, between the organization and society the

importance of fairness is underlined, and finally between society and the person, the importance of development is emphasized.

*Happiness* and the *common good* are placed at the centre of the model, in line with the approach of positive psychology and emphasizing even more strongly the eudaimonic nature of this personal and societal purpose. This final aim is placed at the heart of the model and with the help of concentric onion-like shapes the psychological significance of *meaningfulness* is emphasized, while the essentially social nature of the anthropological assumptions is accentuated through the inclusion of *relationships*.

Between the three *health* components (organizational, personal, and societal) and the inner core of the model (*happiness and common good, meaningfulness, and relationships*), three bridge-like shapes create a connection, supplemented by textboxes, which contain the explanations of key dynamics and decisive responsibilities. In the area of *organizational health*, the balance of *demands* and *autonomy* is indicated as the key responsibility of *leadership*, which is mainly achievable by fostering the appropriate organizational *culture*. In the area of *personal health*, the balancing of *competence* and *effort* is depicted as the key responsibility of the individual, fundamentally attainable by a high level of *self-awareness* and *whole-life balance*. In the area of social health, the balance of *resources* and *rewards* is placed as the key responsibility of civil society and political actors, for which the prioritization of the widest range of *participation* is indispensable.

The scope of our research paper does not allow us to present a deeper explanation of this new comprehensive model; however, in the following summary part of the paper, we explain our intent for further empirical research and practical application.

### Summary and opportunities for further research and empirical application

Through a fundamentally conceptual and literature-based analysis, we have investigated and evaluated the dominant models in the academic discourse addressing the topic of workplace health. After discussing and clarifying key definitions and concepts, our literature review was limited to English-language articles available in the Scopus database and supplemented with the relevant publications of scholars in the leading Hungarian scientific journals. We have identified and evaluated 94 articles according to their choice and application of workplace health models. We have presented in a summarizing table (Table 1) the ten most influential models, including the related seminal authors and the main conceptual components. We have extended our evaluation of the models to the perspective of positive psychology by analysing their connection to the elements of the PERMA model.

We have selected four models for in-depth analysis, which included a visual illustration and short explanation of these models combined with a more detailed evaluation of how the elements of the PERMA model are related to their specific theoretical components. Our conclusion

has pointed toward the importance of the development of a comprehensive healthy work model to include more robustly the insights of positive psychology and to decrease the limitations of the current conceptual fragmentation. In so doing, we have developed, introduced, and explained a new, *Comprehensive Model of Healthy Work and Happiness* (Figure 5).

This is a prospective model in an early development stage, a basis on which we aim to carry out several qualitative and quantitative research projects in various research contexts. With the help of this article, we hope to win cooperation for this exciting adventure and invite any interested researchers to join our efforts during the empirical validation and theoretical refinement of the model. The creation of widely accessible healthy work is a noble undertaking that requires close cooperation and joint responsibility on a personal, organizational, and societal level. Programs and interventions targeting health-related outcomes head in the right direction if they embrace a comprehensive thinking, and our intention is to guide and support this objective through the presented theoretical model and the empirical research work connected to it.

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