

MULTIDIMENSIONAL PERSPECTIVES FOR ADDRESSING EMOTIONAL EXHAUSTION AND ITS PSYCHOLOGICAL EFFECTS

RANDY JAVIER FUENTES RAMOS¹, DEILO MARTÍNEZ MAZA²,
HEYBERTT MORENO DÍAZ³

¹ SYSTEMS ENGINEER, MASTER IN DIGITAL TECHNOLOGIES APPLIED TO EDUCATION. PROFESSOR AT THE UNIVERSIDAD DE CARTAGENA. E-MAIL: rjfuentesunicor@gmail.com, rfuentesr@unicartagena.edu.co

² PUBLIC ACCOUNTANT. FINANCIAL ADMINISTRATION TECHNOLOGIST. SPECIALIST IN FINANCIAL MANAGEMENT. MASTER OF BUSINESS ADMINISTRATION WITH A FOCUS ON CORPORATE FINANCE. MASTER OF FINANCE WITH A FOCUS ON INVESTMENTS AND INSURANCE. MEMBER OF THE GRICOF RESEARCH GROUP. PROFESSOR AT THE UNIVERSIDAD DE CARTAGENA.

E-MAIL: deilomartinezm@gmail.com.

³SPECIALIST IN TELECOMMUNICATIONS. SYSTEMS ENGINEER. PROFESSOR OF THE SYSTEMS ENGINEERING PROGRAM AT THE UNIVERSIDAD DE CARTAGENA. CARTAGENA DE INDIAS, COLOMBIA.

E-MAIL: hmorenod@unicartagena.edu.co

Abstract:

Burnout syndrome is one of the main psychosocial problems in the contemporary workplace, with direct repercussions on mental health, performance, and organizational sustainability. This study applied the prospective MACTOR method based on a systematic literature review and consultation with 12 experts, with the purpose of identifying key actors, their relations of influence, and the strategic objectives linked to burnout prevention. The results reveal a vertical hierarchical structure where the government, senior management, and human resources departments wield the greatest influence, while employees, leaders, and unions occupy dependent or reactive positions. Organizational culture emerged as an autonomous and divergent actor, revealing structural resistance to cultural change. The greatest convergences were observed around the objectives of strengthening institutional welfare policies, improving the work climate, and promoting self-care, configuring a pattern of collective mobilization toward structural interventions. It is concluded that effective burnout prevention requires a systemic approach that articulates policies, organizational culture, and empathetic leadership, prioritizing cultural transformation and institutional co-responsibility over individual coping strategies.

KEYWORDS: employee well-being; organizational culture; empathetic leadership; occupational health; psychosocial prevention; work climate; well-being policies; emotional exhaustion.

INTRODUCTION

According to the WHO's International Classification of Diseases, 11th edition (2019), burnout syndrome is perceived as a chronic response to work-related stress that manifests as emotional exhaustion, depersonalization, and diminished personal accomplishment (Lastovkova et al., 2018). This has been exacerbated by increasing workloads, the digitalization of work, and the vulnerability of organizational contexts, which is why this concept has acquired a more critical dimension (Virtanen et al., 2023).

Several recent studies address burnout from a multidimensional perspective, integrating psychological, social, and organizational variables. Along these lines, the study by Gavelin et al. (2020) reveals that emotional exhaustion is positively associated with a lack of meaning in life and with cognitive alterations resulting from sustained stress. Similarly, Charalampous et al. (2022) demonstrate that professional identity and psychological isolation have an inverse relation with emotional resilience. In summary, it can be argued that burnout is not a one-dimensional phenomenon but rather involves a structure of personal interactions on one hand and contextual interactions on the other.

In the case of air traffic controllers, it reveals that levels of exhaustion translate into four complementary dimensions: the emotional dimension, the cognitive dimension, the behavioral dimension, and the physiological dimension, thus reaffirming the multisystemic nature of burnout syndrome. This structure is also reproduced in the work of Rose et al. (2017), which presents a description of the link between emotional exhaustion, allostatic load, and physical symptoms related to the sensations characteristic of chronic fatigue. Similarly, Maresca et al. (2022) mentions that seeking support or utilizing professional networks is associated with a decrease in burnout symptoms among healthcare and emergency personnel in the context of the COVID-19 pandemic. The interrelation of this evidence in recent literature would therefore reinforce the opportunity to apply multidimensional and strategic approaches that go beyond simply describing the phenomenon of burnout, advancing an analysis of the interrelations between the actors, factors, and their consequences. Along these lines, the objective of this study is to propose the application of the MACTOR method (Matrix of Actors, Objectives, and Power Relations) to describe the relations of influence and dependence among the dimensions of psychosocial factors that contribute to emotional exhaustion, as well as to prioritize sustainable intervention strategies in the organizational context.

THEORETICAL FRAMEWORK

Understanding Burnout Syndrome as a concept has changed completely since its initial formulation by Maslach and Jackson (1981), who characterized the syndrome through a triad model composed of emotional exhaustion, depersonalization, and diminished personal accomplishment, to a more complex and multidimensional model that has been built in recent years in the scientific literature, which includes psychological, organizational, behavioral, and physiological aspects, thus showing its systemic complexity.

Psychological dimension

The psychological dimension of burnout refers to emotional exhaustion, feelings of ineffectiveness, and loss of intrinsic motivation. Thus, Horvat and Tement (2020), referring to burnout, describe emotional exhaustion as the core of the syndrome, associated with affective dissociation and depersonalization. Similarly, Rugulies et al. (2016), in their study, demonstrate how an effort/reward imbalance predicts depressive or cognitive symptoms related to emotional overload. At the same time, the psychological component represents the deterioration of perceived self-efficacy and professional identity, leading to sustained vulnerability to stress.

Organizational dimension

Within an organizational context, Burnout Syndrome emerges as a social and organizational response to a series of factors related to dysfunctional work structures, such as high workloads, role ambiguity, and poor leadership. The work of Ren et al. (2020) reveals that a poor work climate and the absence of empathetic leadership increase the incidence of burnout. Correia and Almeida (2020) also demonstrated that a sense of organizational injustice and a lack of supervisory support predicted emotional exhaustion among healthcare professionals. This indicates that the organizational dimension of burnout is associated with organizational injustices that hinder self-realization and full participation, contributing to increased demotivation and withdrawal.

Behavioral dimension

Adaptive Burnout has a behavioral component that includes changes in work habits, interpersonal relationships, and the strategies used to cope with everyday work situations. Bakker and De Vries (2021) and Almén (2021) described how this syndrome produces a variety of avoidance behaviors, absenteeism, and a decline in organizational commitment, while a study by Gaeta et al. (2023) highlights that emotional self-regulation and prosocial skills are negative predictors of burnout, indicating the importance of fostering the strengthening of adaptive resources to cope with this phenomenon. All of this implies that the behavioral dimension of this syndrome allows for seeing how it modifies social interaction and exchanges between people, as well as influencing communication and cooperation processes within organizations.

Physiological dimension

Recently, evidence has emerged that Burnout also has a neuroendocrine and physiological basis. Ciobanu et al. (2021) found that chronic exhaustion is associated with hyperactivity of the HPA (hypothalamic-pituitary-adrenal) axis and, consequently, an increase in cortisol secretion, which in turn produces physical symptoms such as insomnia, headaches, and gastrointestinal dysfunction. Similarly, Bärtil et al. (2022) argue for a direct relation between emotional exhaustion and allostatic load, suggesting that burnout should be considered a process of cumulative physiological stress. This dimension may indicate that this syndrome should be addressed as a psychobiological phenomenon, since, in addition, mental exhaustion translates into measurable somatic consequences.

Multidimensional conjugation and MACTOR approach

Addressing Burnout from a multidimensional perspective involves a view that combines the interdependence of psychological, organizational, behavioral, and physiological factors, rather than analyzing them in isolation. The MACTOR model is presented here as the ideal tool for mapping the relations of influence and dependence among these factors and among the actors involved. According to Venegas et al. (2022), the use of MACTOR

in organizational studies allows for the identification of critical intervention points and the prioritization of strategies, based on consensus among actors. Thus, prospective analysis facilitates the creation of prevention policies that integrate different levels of the phenomenon.

METHODOLOGICAL FRAMEWORK

This research adopts a qualitative, descriptive, and prospective approach, based on documentary analysis and structured consultation with experts. The methodological objective is to identify and analyze the relations of influence and dependence between the multidimensional factors of Burnout Syndrome and the actors involved in its management, through the application of the MACTOR method, developed by Michel Godet (1991) and validated in organizational contexts by Hernández (2020) and Venegas et al. (2022).

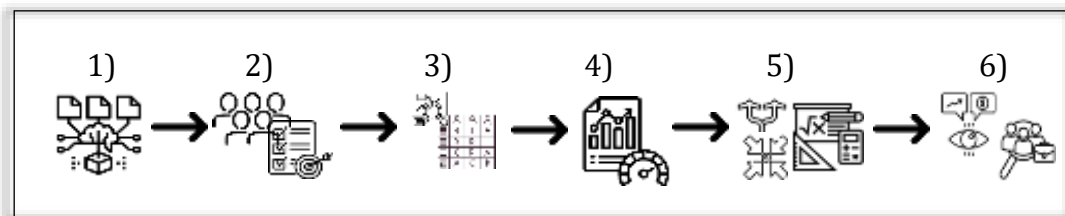
This prospective method was selected for its ability to identify strategic interactions among the actors involved in complex problems, such as psychosocial risks in the workplace. This method allows for visualizing the network of influences and dependencies between the factors that contribute to emotional exhaustion and the actors responsible for managing it, generating an empirical basis for prioritizing preventive intervention strategies.

The study is based on two types of sources. The first is a literature review, which involved compiling scientific articles indexed in Scopus and Web of Science (2015–2025) focused on Burnout Syndrome and its psychological, organizational, behavioral, and physiological dimensions. Articles were selected based on thematic relevance, currency, and relation to psychosocial factors in the workplace. The second source is expert consultation, which involved inviting 12 international experts in organizational psychology, occupational health, and strategic planning.

Participants were selected based on expertise, considering their experience in research or intervention on burnout and employee well-being management. Each expert assessed the influence and dependency relations among the actors identified in the literature, using MACTOR matrices.

Figure 1 below details the methodological procedure and stages of the MACTOR method, which consists of six stages: Identification of variables, Identification of actors and strategic objectives, Construction of matrices, Calculation of indirect influences, Determination of convergences and divergences, and Construction of strategic scenarios.

Figure 1. Methodological process diagram



Source: Own elaboration

Stage 1. Identification of variables

In this first stage, an exhaustive documentary analysis was carried out in databases such as Scopus, WoS, PubMed, on Burnout Syndrome, to detect the most recurrent and significant variables that describe the phenomenon and classify them into dimensions.

Stage 2. Identification of actors and strategic objectives

Once the variables were defined, the next step was to identify the actors who influence or are influenced by those variables within the work or institutional system. Similarly, for each actor, their objectives or interests regarding the system were determined (that is, what they seek to achieve in relation to the phenomenon of burnout).

Stage 3. Construction of the matrices

Based on the opinions of the 12 experts, the degree of influence each actor has on the others and their dependence on them is quantified. For the Matrix of direct influence (MDI), this is done on a scale of 0 to 3, where 0 = no influence, 1 = weak influence, 2 = moderate influence, and 3 = strong influence. For the Matrix of actors and objectives (2MAO), a scale of -3 to +3 is used, where positive values indicate actor support for the objectives (from +1 weak to +3 total), negative values indicate rejection (from -1 to -3), and 0 represents neutrality. This step transforms qualitative information into matrix data that allows for the construction of a map of power and relations between actors.

Stage 4. Calculation of indirect influences

Data processing was performed using MACTOR 5.2 software, which analyzes the entire network of interactions, identifying secondary or chain effects (indirect influences) and levels of agreement or disagreement between objectives, generating a relational map that identifies the most influential and dependent actors in the system. This step allows for the identification of latent relations not evident in the direct analysis.

Stage 5. Determination of convergences and divergences

The Matrix of convergence and divergence identifies potential alliances and conflicts between the objectives of different actors. This allows for the visualization of areas for strategic cooperation.

Stage 6. Construction of strategic scenarios

Finally, intervention scenarios are proposed, built from the matrices of influence and convergence of the actors, where it is possible to assess which strategies the potential intervention can reduce Burnout, which alliances between actors can be more effective, or where there are structural conflicts or resistance to change.

Regarding the validity of the process, the validity of the expert consensus was assessed using Kendall's index (W) to evaluate the level of agreement among the 12 specialists. The validity of the documentary analysis was ensured through triangulation between documentary sources and the results of the expert panel. The research adhered to the principles of the Declaration of Helsinki (WMA, 2014) and the Ethical Guidelines for Psychological Research, thus guaranteeing confidentiality, anonymity, and the proper procedures for obtaining informed consent from the consulted experts.

RESULTS

The analysis was carried out using the MACTOR method, designed by Michel Godet and adapted in the LIPSOR–EPITA software, with the aim of identifying the relations of influence and dependence between the main actors involved in the management of Burnout Syndrome in organizational contexts.

The baseline information was obtained through a systematic review of literature indexed in Scopus (2015–2025), from which the key variables related to the phenomenon were extracted and grouped into eight dimensions: psychological, cognitive, organizational, social, behavioral, physiological, normative, and cultural, as can be seen in Table 1.

Table 1. Key variables related to Burnout Syndrome

Dimension	Key variable
Psychological	Emotional exhaustion
Cognitive	Depersonalization and cynicism
Organizational	Work overload and organizational climate
Social	Lack of social support and poor leadership
Behavioral	Ineffective coping strategies
Physiological	Somatic symptoms (fatigue, insomnia, headaches)
Normative	Institutional policies on well-being and prevention
Cultural	Stigmatization of stress and normalization of overwork

Source: Own elaboration based on literature and consultation with experts

Subsequently, a panel of 12 experts (academics, occupational psychologists, and human resource managers) validated the identification of 10 relevant institutional and social actors (Table 2), as well as seven strategic objectives of the system (Table 3).

Table 2. Relevant actors identified

Nº	Code	Actor	Description
1	A1	Affected employees or professionals	Core of the phenomenon. Primary recipients of emotional and physical impact (Maslach & Leiter, 2016).
2	A2	Leaders or direct supervisors	They shape the emotional climate and determine workload (Dyrbye et al., 2020).
3	A3	Human resources (HR) Department	They design well-being and prevention policies (Guest, 2017).

4	A4	Organizational leadership / senior management	They control structure, culture, and productivity (Shanafelt & Noseworthy, 2017).
5	A5	Occupational psychologists or occupational health services	They implement intervention programs (Jackson-Koku & Grime, 2019).
6	A6	Coworkers / peers	They provide key social support and mitigate stress (De Looft et al., 2018).
7	A7	Government / Ministry of Labor or Health	They define regulations on employee mental health (Klamut et al., 2022).
8	A8	Unions or professional associations	They represent labor rights and fair conditions.
9	A9	Insurance companies / occupational health entities	They determine coverage and prevention protocols (Jackson-Koku & Grime, 2019).
10	A10	Organizational culture (as a symbolic system)	They structure beliefs and practices about work (Dyrbye et al., 2020).

Source: Own elaboration based on literature and consultation with experts

Table 3. Strategic objectives of the system

Code	Overall objective of the system (strategic axes of Burnout)	Dimensions involved	Examples of actors
O1	To reduce emotional and physical exhaustion among employees.	Psychological, Physiological	Employees, Psychologists, HR
O2	To improve the work climate and interpersonal relationships.	Organizational, social	Leaders, Coworkers, HR
O3	To prevent work overload and redesign tasks.	Organizational, economic	Management, HR, Unions
O4	To strengthen institutional policies on well-being and prevention.	Regulations, policy	Government, HR, Insurance companies
O5	To promote empathetic leadership and emotional sustainability.	Organizational, cultural	Leaders, Management, Organizational culture
O6	To develop resilience and individual coping programs.	Behavioral, Psychological	Employees, Psychologists, HR
O7	To reshape the organizational culture toward self-care and mental health.	Cultural, social	Management, Organizational culture, Government

Source: Own elaboration based on literature and consultation with experts

These input data were integrated into the MACTOR software, where the following matrices were constructed: MDI (Matrix of direct influence), MAO (Matrix of actor-objective), MDII (Matrix of direct and indirect influence), and the Plane of power and interdependence, based on the global influence and net dependence values automatically calculated by the model.

The MDI (Figure 2) reveals an asymmetrical relation structure, where the Government or Ministry of labor (A7) exhibits the highest levels of influence over the other actors, followed by Senior management (A4) and Organizational culture (A10). In contrast, employees (A1), coworkers (A6), and unions (A8) show high levels of dependence, confirming their reactive role within the system.

Figure 2. MDI

MDI	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
A1	0	1	1	1	1	2	0	2	0	1
A2	2	0	2	2	1	2	0	1	0	2
A3	1	2	0	2	2	1	1	1	1	2
A4	3	3	3	0	2	2	2	1	2	3
A5	2	1	2	1	0	2	1	1	1	1
A6	2	2	1	1	1	0	0	1	0	1
A7	1	1	2	2	1	1	0	3	3	2
A8	2	1	1	2	0	2	1	0	1	1
A9	1	0	1	2	0	0	1	1	0	1
A10	3	3	3	3	1	2	1	1	1	0

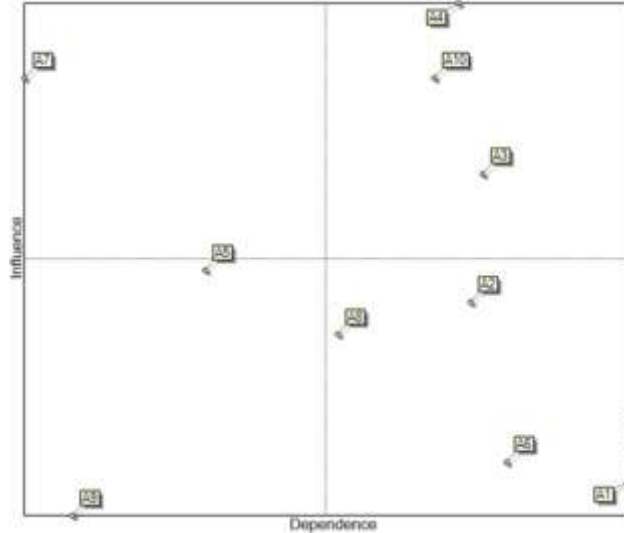
© LIPSOR-EPITA-MACTOR

Source: Own elaboration based on consultation with experts

Based on the MDI results, the Plane of influence and dependence was obtained (Figure 3), which delimits four well-defined quadrants. In quadrant I (dominant) was the Government actor (A7). In quadrant II (intermediate or mediating) were Senior management (A4), Organizational culture (A10), and Human resources (A3). In quadrant III (dependent) were Employees (A1), Direct leaders (A2), Coworkers (A6), and Unions (A8). Finally, in quadrant IV (autonomous) were Occupational psychologists (A5) and Insurance companies (A9).

This result confirms that the Burnout phenomenon takes shape within a vertical hierarchical system, where normative authority and management structures largely determine the working conditions that affect the psychological well-being of workers.

Figure 3. Plane of direct influences and dependencies

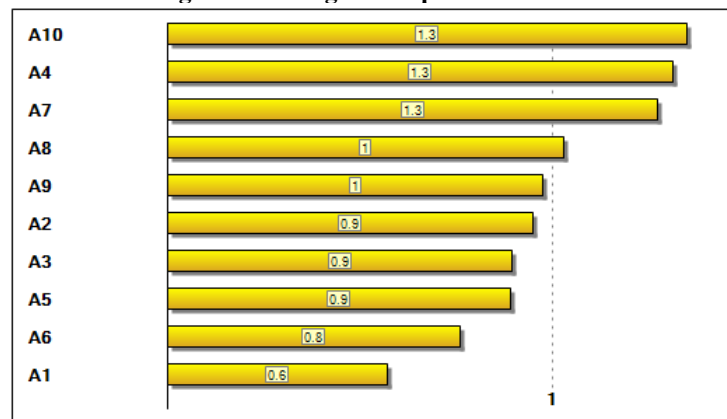


Source: Own elaboration based on consultation with experts

Figure 4 presents a horizontal histogram that ranks the actors according to the magnitude of their power relations within the system. This histogram was generated from the values obtained in the MDII, automatically calculated by the MACTOR 5.2 software. This calculation combines the direct influences reported by the 12 experts (scale 0–3) with the indirect influences derived from the linkages between actors, obtained using Godet's structural proximity algorithm. The final result is a global power index for each actor, expressing their total level of impact on the Burnout strategic system.

As shown in the figure, the actors with the highest values (A10, A4, and A7) exceed the threshold of 1.3, indicating a structural weight significantly higher than the average. They are followed by A8, A9, A2, A3, and A5 in an intermediate range (0.9–1.1). Finally, A6 and A1 are located at the bottom of the histogram, with values around 0.8 and 0.6, respectively, demonstrating a lesser impact on the system's dynamics.

Figure 4. Histogram of power relations



Source: Own elaboration based on consultation with experts

The histogram confirms a hierarchical distribution in which organizational culture (A10), senior management (A4), and the Government or Ministry of Labor (A7) are the actors with the greatest structural power. This

means their decisions have a multiplier effect on the rest of the system, especially in determining preventative policies, workloads, and cultural frameworks that affect burnout.

At the middle level are actors with tactical influence, such as unions (A8), insurers (A9), direct leaders (A2), and HR (A3), whose capacity for impact depends both on their institutional position and their alignment with dominant actors. The lowest values correspond to employees (A1) and coworkers (A6), reinforcing their predominantly reactive and dependent roles. This confirms that their influence on the system's structure is limited, despite being the ones who directly experience burnout.

On the other hand, the graph of convergence comes from the second-order MACTOR analysis, which compares the actors' positions with respect to the strategic objectives using the 2MAO matrix (Figure 5) and calculates the convergence-divergence index by cross-referencing support, rejection, and neutrality (0). The software generates a cumulative convergence matrix and projects the links onto a graph where the thickness and color of the lines indicate the level of convergence (weak, medium, strong, or very strong).

Figure 5. Matrix of actors and objectives (2MAO)

2MAO	O ₁	O ₂	O ₃	O ₄	O ₅	O ₆	O ₇
A1	3	2	3	2	2	3	2
A2	2	3	1	1	3	1	2
A3	2	3	2	3	2	2	2
A4	1	2	0	2	2	1	3
A5	3	2	2	2	3	3	2
A6	2	3	2	1	2	2	1
A7	2	2	2	3	1	1	2
A8	2	2	3	3	1	1	1
A9	1	0	1	3	0	0	1
A10	0	1	-1	1	1	0	3

@LPSOR-FRITA-MACTOR

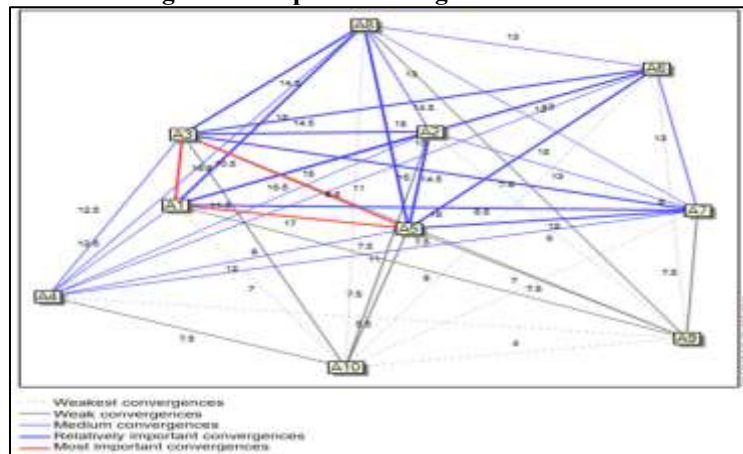
Source: Own elaboration based on consultation with experts

In this sense, Figure 6 illustrates a complex network of interactions where dense connections can be seen with A3 (HR), A1 (employees), A2 (direct leaders), A5 (occupational psychologists), and A7 (government), and also many nodes that show intense interrelations with A8 (unions) and A6 (coworkers).

The graph provides evidence that the system exhibits high levels of convergence, as it appears that the actors share strategic objectives regarding burnout management. The strongest convergences, shown in red, are located in the triad of HR (A3) - Employees (A1) - Occupational psychologists (A5), demonstrating a strong alignment towards O1 (To reduce emotional and physical exhaustion among employees) and O6 (To develop resilience and individual coping programs). Meanwhile, the connections shown in blue demonstrate significant cooperation between Government (A7), Direct leaders (A2), and Senior management (A4), particularly regarding O4 (To strengthen institutional policies on well-being and prevention) and O3 (To prevent work overload and redesign tasks).

The relatively significant convergences between organizational culture (A10) and strategic actors suggest that institutional cultural practices act as a cross-cutting axis influencing system alignment. Finally, weak or very weak convergences (gray lines) indicate areas where alignment is low or subordinate, especially in relations with insurers (A9), reflecting their more peripheral role in the overall emotional well-being strategy.

Figure 6. Graph of convergences of order 2

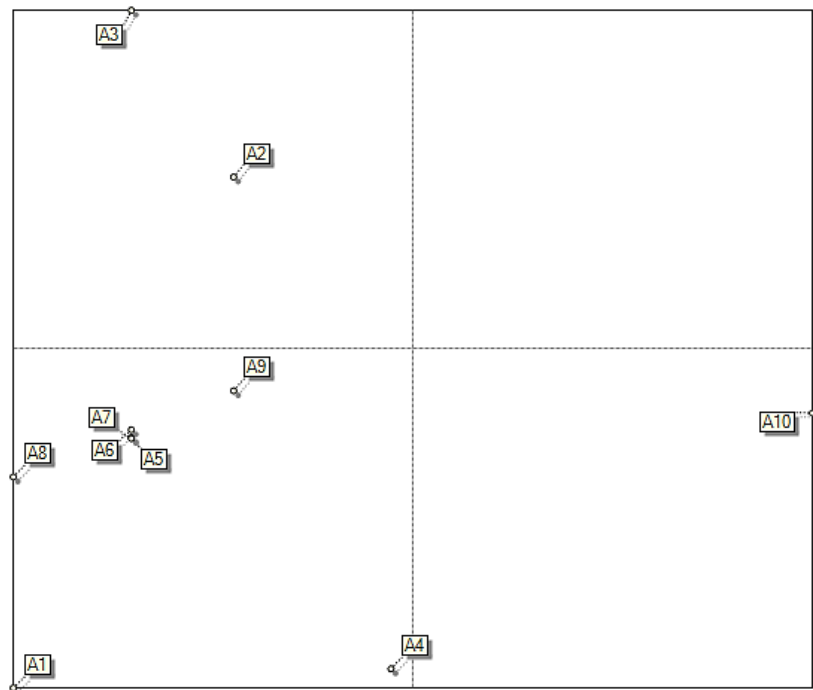


Source: Own elaboration based on consultation with experts

Regarding divergences, the plane in Figure 7 was obtained using the second-order divergence analysis module of the MACTOR 5.2 software, which calculates the degree of opposition or discrepancy between actors in relation to the identified strategic objectives (O1–O7). The values are derived from the intersection of the support or rejection positions expressed in the matrix 2MAO. The plane represents the conceptual distance between actors, such that the closer they appear, the greater the similarity in their strategic orientations; while the more distant actors express disagreements or opposing interests.

In this respect, the diagram shows a dense cluster in the lower left quadrant (A5, A6, A7, A8, A9), which demonstrates a convergence of interests among occupational psychologists, coworkers, government, unions, and insurance companies. A1 (employees), A4 (senior management), A2 (direct leaders), and A3 (human resources) are located somewhat further apart, although still within the same axis of interaction. In contrast, A10 (organizational culture) is positioned at the opposite ends of the diagram, indicating significant divergences from the rest of the system.

Figure 7. Plane of divergence between actors of order 2



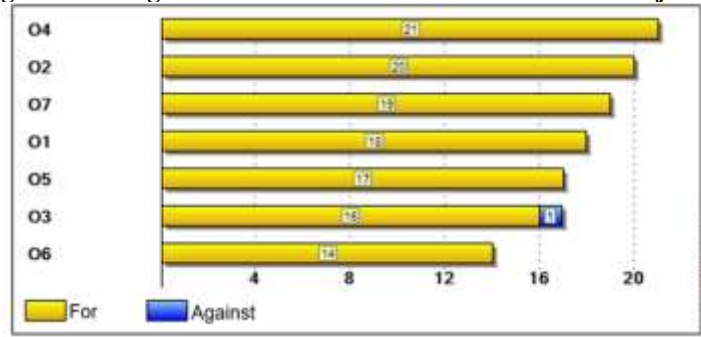
Source: Own elaboration based on consultation with experts

These results show that most actors operate within a field of moderate consensus regarding the importance of prevention and emotional well-being, while the most significant differences stem from structural factors (institutional culture). Similarly, the gap between A10 and A9 reveals the cultural tension between institutional frameworks that normalize overexertion and the limitations imposed by economic or coverage criteria in occupational health.

Regarding the support or rejection that each actor expresses for the system's seven strategic objectives, the histogram of 2MAO implication is constructed from the 2MAO matrix. From the graph in Figure 8, it can be observed that the objectives with the greatest support are O4 (To strengthen institutional policies on well-being and prevention) and O2 (To improve the work climate and interpersonal relationships), while O7 (To reshape the organizational culture toward self-care and mental health) and O1 (To reduce emotional and physical exhaustion among employees) are also well-positioned. Only objective O3 (To prevent work overload and redesign tasks) shows a slight level of opposition (1 "against" case), and O6 (To develop resilience and individual coping programs) is the objective with the least support of the set.

In this case, the overall implication is positive and consistent, indicating a high level of consensus among actors regarding the need to strengthen organizational policies and prevent burnout. However, the weaker support for individual objectives (resilience) and slight divergences concerning work reorganization suggest potential resistance to structural change within organizations.

Figure 8. Histogram of actors' involvement in the 2MAO objectives



Source: Own elaboration based on consultation with experts

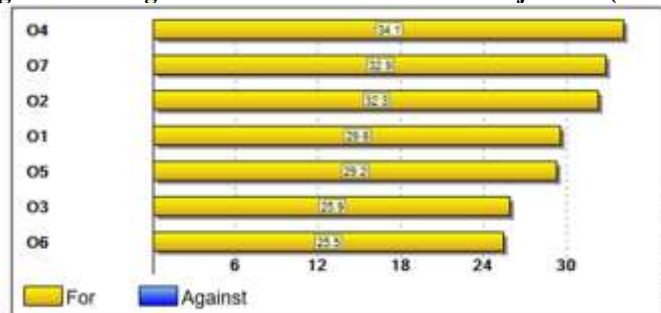
Regarding the mobilization of actors, the histogram in Figure 9 is derived from the 3MAO matrix, which combines the involvement of actors with their structural influence weight, generating an effective mobilization index that reflects the real capacity of each actor to act on the objectives.

The histogram (Figure 9) indicates that actors are most mobilized toward objective O4 (To strengthen institutional policies on well-being and prevention), which shows the highest mobilization (34.1). This is followed by O7 (To reshape the organizational culture toward self-care and mental health) (32.9) and O2 (To improve the work climate and interpersonal relationships) (32.3). O1 (To reduce emotional and physical exhaustion among employees) (29.6) and O5 (To promote empathetic leadership and emotional sustainability) (29.2) fall in the intermediate range. Finally, O3 (To prevent work overload and redesign tasks) (25.9) and O6 (To develop resilience and individual coping programs) (25.5) show the lowest mobilization values.

The greater mobilization toward O4, O7, and O2 indicates that, collectively and considering the influence of the actors, the system is more predisposed to implement structural policies, cultural changes, and improvements in the work climate. In other words, there is a preference for interventions of an institutional and cultural nature that can generate far-reaching effects. Objectives related to more operational or individual actions, such as O3 (To prevent work overload and redesign tasks) and especially O6 (To develop resilience and individual coping programs), show less mobilization. This suggests two non-mutually exclusive possibilities: (a) greater practical difficulty or resistance to implementing changes in task design and individual programs, and (b) a lower perception among influential actors that these measures are the most effective or priority way to address Burnout.

From a strategic perspective, this pattern suggests that leveraging high mobilization around policies and culture can be an effective way to introduce subsequent changes in work redesign and resilience programs (e.g., including redesign or training initiatives within already prioritized policy/well-being frameworks). However, it also highlights the need to better activate and mobilize relevant actors (e.g., HR, unions, and leaders) around O3 and O6 to prevent individual or reorganizational measures from being overlooked despite their importance in reducing exhaustion.

Figure 9. Histogram of actor mobilization on objectives (3MAO)

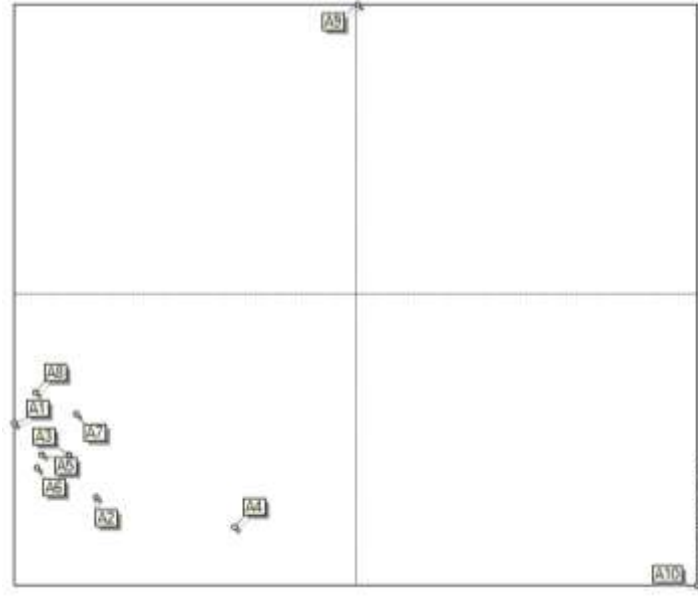


Source: Own elaboration based on consultation with experts

Another aspect to analyze is the net distance between actors, which is shown on the plane of net distance and is generated using the relational analysis module of the MACTOR software. This module calculates the structural proximity between actors by simultaneously considering their influences, dependencies, convergences, and divergences. This plane provides a comprehensive view of the system's structure in terms of strategic affinity.

The map in Figure 10 reveals a main cluster in the lower left quadrant, grouped by A1 (employees), A3 (HR), A5 (psychologists), A6 (coworkers), A7 (government), and A8 (unions), indicating high cohesion among operational and social actors. In contrast, A9 (insurance companies) and A10 (organizational culture) are located in isolated and opposing positions, while A4 (senior management) and A2 (leaders) are situated in the middle, acting as bridges between these two poles.

Figure 10. Plane of net distances between actors



Source: Own elaboration based on consultation with experts

The structure derived from this information corroborated a dual system, characterized by a cooperative core focused on burnout prevention and peripheral actors who maintain a distant or autonomous position, influenced by institutional or cultural interests. Consequently, this distribution indicates that effective intervention policies must strengthen the connection between strategic levels (management, culture) and operational levels (employees, HR, psychologists) to reduce the fragmentation of the phenomenon's prevention.

Construction of strategic scenarios

The final stage of the MACTOR method allowed for the projection of future configurations of the system of actors involved in Burnout management, using the results of the influence, convergence, and mobilization matrices. From this, three strategic scenarios were identified.

The first scenario, known as institutional and cultural transformation, is the ideal of all. In this case, there is collaboration between government, senior management, HR, occupational psychologists, and workers, which fosters well-being policies, more empathetic leadership, and cultures of self-care and emotional sustainability. The second scenario could correspond to a compensatory or adaptive relation, characterized by partial preventative actions driven primarily by HR, unions, and direct leaders. Although there has indeed been some progress in employee well-being and work climate, the structure of these improvements remains reactive and lacks structural impact.

Finally, the last of these factors could correspond to institutional inertia and fragmentation, where there is little coordination among actors, and where interests linked to productivity and economic criteria predominate over those related to psychosocial prevention. In this case, Burnout continues to be treated as an individual problem, reducing the effectiveness of interventions and maintaining high levels of organizational risk.

Taken together, the scenarios show that sustainable Burnout prevention depends on the degree of cooperation between strategic actors and the institutional capacity to integrate policies on well-being, leadership, and cultural transformation within organizational management.

DISCUSSIONS

1. Organizational factors and hierarchical structure

The results of the MACTOR model described above demonstrate that Burnout is shaped within a vertically oriented organizational structure, where those with the greatest institutional power (Government, Senior management, and Human resources) concentrate the capacity to influence working conditions and preventative

policies. This reinforces the idea that Burnout cannot be interpreted solely as an individual response to stress, but rather as an effect of the structural dynamics that emerge from the organization of work.

In this regard, the results obtained are consistent with the findings of Edmondson et al. (2016), who assert that psychological safety at work depends on multilevel systems in which institutional policies are supported by visible leadership and robust regulatory frameworks. For their part, Kossek et al. (2016) state that strategies focused exclusively on people lose their effectiveness when organizations have overloaded environments, performance demands, and functional ambiguity.

The high level of dependency observed among workers and supervisors also reveals a lack of operational autonomy regarding strategic decisions, thus aligning with Maslach and Leiter's (2022) person-job fit model, where the mismatch between demands and organizational resources is a major cause of Burnout. From this perspective, the study provides evidence that the sustainability of employee well-being depends on organizational governance models that effectively integrate mental health into structural work management.

2. Leadership and interpersonal relationships

The strong convergence identified among direct leaders, employees, and occupational psychologists demonstrates that leadership mediates between organizational policies and the daily emotional experiences of workers. This convergence shows that interpersonal relationships and emotional climate are not extraneous variables, but rather a strategic element in preventing Burnout.

The results are consistent with those of de Zulueta (2015), who demonstrate that transformational and compassionate leadership styles reduce emotional exhaustion through a greater sense of support and group cohesion. Similarly, Drayton (2021) explain that middle leaders are critical nodes in the implementation of well-being policies.

However, on the other hand, the study also points to a significant tension between senior management and organizational culture, suggesting that many organizations develop institutional discourses favorable to well-being without actually transforming the work practices that perpetuate Burnout. This 'strategic dissonance' is the same as what Bakker and De Vries (2021) demonstrate when they affirm that some organizational models place well-being and incompatible organizational demands on the same plane.

Therefore, empathetic leadership should not rely solely on individual supervisory competencies but must require institutional consistency in organizational values, strategic decisions, and day-to-day management practices.

3. Organizational culture and structural resistance

One of the most significant findings of the study is the peripheral and divergent position of Organizational culture within the analyzed system. This is because cultural practices act almost as mechanisms for the structural reproduction of Burnout, especially when they normalize hyperproductivity, presenteeism, or constant availability as synonymous with organizational commitment.

This finding aligns with the research of Wahab et al. (2020), who argue that high-performance organizational cultures tend to obscure emotional exhaustion by associating sacrifice with professional success and institutional recognition. Similarly, Bakker and De Vries (2021) warn that many organizations have created environments where emotional self-regulation itself becomes yet another additional burden for employees.

Therefore, the study demonstrates that preventative policies can lose effectiveness if they are not accompanied by profound cultural transformations. The observed gap between Organizational culture and other actors reflects a lack of alignment between institutional discourse and actual work practices, which can generate implicit resistance to well-being initiatives.

From a strategic perspective, this implies that preventing Burnout requires modifying not only organizational procedures but also shared beliefs, symbolic norms, and ways of legitimizing job performance.

4. Institutional policies and Burnout prevention

The objectives with the highest mobilization levels (O4, O7, and O2) reflect that the analyzed organizational system prioritizes institutional well-being policies, improving the work climate, and promoting self-care cultures. This pattern confirms the growing trend in the literature toward preventive models of a structural nature, rather than exclusively clinical or individual ones.

Along these lines, Drayton (2021) argue that effective Burnout prevention depends on sustained organizational policies that integrate mental health, leadership, and psychological safety. Similarly, Landsbergis (2018) suggests that the most effective interventions are those that modify work organization through functional autonomy, social support, and task redesign.

However, the results also show less mobilization toward goals related to individual resilience and work redesign. This suggests that, although there is consensus regarding the importance of well-being, resistance persists to implementing changes that directly affect the productive structure or operational dynamics of organizations.

Therefore, the study suggests that organizations show a greater inclination towards symbolic or normative strategies than towards profound structural modifications, especially those that involve redistribution of burdens, organizational flexibility, or reduction of job demands.

5. Strategic implications

The results obtained allow for interpreting and understanding Burnout as a relational and systemic phenomenon, meaning that it requires cooperation at many levels among institutional, technical, and social actors. The prospective analysis shows that the most sustainable prevention strategies are those that integrate government policies, organizational leadership, human resources, and psychosocial support networks within a single intervention framework.

In this sense, dominant actors are those with the capacity to change the system, while other actors, such as employees, psychologists, and middle managers, form the operational base for change. This relation confirms the findings of Zwetsloot (2019), who emphasize that the sustainability of employee well-being depends on the creation of shared cultures of psychological safety.

Furthermore, the study offers a significant methodological contribution by demonstrating the usefulness of the MACTOR method for analyzing complex psychosocial risks from a prospective and relational perspective. The combination of influence, dependence, convergence, and mobilization allowed for the identification of intervention points, as well as structural points of tension and intervention scenarios.

Therefore, the research suggests that organizations must move towards comprehensive prevention models where emotional well-being is understood as a strategic component of organizational sustainability and not just as a corrective measure to counteract work-related stress.

CONCLUSIONS

The MACTOR analysis concludes that Burnout is primarily related to structural and organizational factors, giving a high degree of influence to government, senior management, and human resources on working conditions and prevention strategies, confirming that emotional well-being depends more on institutional governance than on isolated individual actions.

The results also indicated a high degree of agreement among employees, leaders, and occupational psychologists regarding the need to promote employee well-being and reduce Burnout. However, the gaps between strategic and operational actors hinder the coordinated implementation of preventative policies.

Furthermore, organizational culture emerged as a significant factor within the system, which, due to practices associated with hyper-productivity and overexertion, could undermine occupational health initiatives. Therefore, cultural transformation is essential to sustain any Burnout prevention strategy.

Finally, the increased mobilization towards objectives linked to well-being policies, work climate, and self-management denotes a movement towards structural and collective interventions. Therefore, the sustainable reduction of Burnout requires a holistic health approach based on empathetic leadership, institutional co-responsibility, and long-term organizational changes.

Furthermore, the study demonstrates the usefulness of the MACTOR method as a prospective tool for analyzing complex psychosocial risks, allowing the identification of power relations, levels of convergence, and strategic scenarios applicable to the organizational management of employee well-being.

REFERENCES

1. Almén, N. (2021). A cognitive behavioral model proposing that clinical burnout may maintain itself. *International Journal of Environmental Research and Public Health*, 18(7), 3446.
2. Bakker, A., & De Vries, J. (2021). Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, stress, & coping*, 34(1), 1-21.
3. Bärtil, C., Henze, G. I., Giglberger, M., Peter, H. L., Konzok, J., Wallner, S., ... & Kudielka, B. M. (2022). Higher allostatic load in work-related burnout: The Regensburg Burnout Project. *Psychoneuroendocrinology*, 143, 105853.
4. Charalampous, M., Grant, C. A., & Tramontano, C. (2022). “It needs to be the right blend”: A qualitative exploration of remote e-workers’ experience and well-being at work. *Employee Relations: The International Journal*, 44(2), 335-355.
5. Ciobanu, A., Damian, A., & Neagu, C. (2021). Association between burnout and immunological and endocrine alterations. *Romanian Journal of Morphology and Embryology*, 62(1), 13.
6. Correia, I., & Almeida, A. (2020). Organizational justice, professional identification, empathy, and meaningful work during COVID-19 pandemic: are they burnout protectors in physicians and nurses? *Frontiers in psychology*, 11, 566139.

7. De Looft, P., Cornet, L., Embregts, P., Nijman, H., & Didden, H. (2018). Associations of sympathetic and parasympathetic activity in job stress and burnout: A systematic review. *PLoS One*, *13*(10), e0205741.
8. de Zulueta, P. C. (2015). Developing compassionate leadership in health care: an integrative review. *Journal of healthcare leadership*, 1-10.
9. Drayton, M. (2021). *Anti-burnout: How to create a psychologically safe and high-performance organisation*. Routledge.
10. Dyrbye, L., Major-Elechi, B., Hays, J., Fraser, C., Buskirk, S., & West, C. (2020). Relationship between organizational leadership and health care employee burnout and satisfaction. *In Mayo Clinic Proceedings. Elsevier*, 698-708.
11. Edmondson, A. C., Higgins, M., Singer, S., & Weiner, J. (2016). Understanding psychological safety in health care and education organizations: a comparative perspective. *Research in Human Development*, *13*(1), 65-83.
12. Gaeta, M., González-Ocampo, G., Quintana, M., & Nasta Salazar, L. (2023). Burnout in university professors: self-regulation and co-regulation as coping strategies. *Electronic Journal of Research in Educational Psychology*, *21*(59).
13. Gavelin, H. M., Neeley, A. S., Dunås, T., Eskilsson, T., Järnholm, L. S., & Boraxbekk, C. J. (2020). Mental fatigue in stress-related exhaustion disorder: Structural brain correlates, clinical characteristics and relations with cognitive functioning. *NeuroImage: Clinical*, *27*, 102337.
14. Godet, M. (1991). Actors' moves and strategies: The mactor method: An air transport case study. *Futures*, *23*(6), 605-622.
15. Guest, D. E. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human resource management journal*, *27*(1), 22-38.
16. Hernández, C. (2020). Planeamiento estratégico prospectivo: métodos MACTOR y SMIC. *Dimensión Empresarial*, *18*(1), 1, 70-175.
17. Horvat, M., & Tement, S. (2020). Self-reported cognitive difficulties and cognitive functioning in relation to emotional exhaustion: Evidence from two studies. *Stress and Health*, *36*(3), 350-364.
18. Jackson-Koku, G., & Grime, P. (2019). Emotion regulation and burnout in doctors: a systematic review. *Occupational Medicine*, *69*(1), 9-21.
19. Klamut, O., Olivera-Figueroa, L., & Weissenberger, S. (2022). A balanced time perspective and burnout syndrome in the corporate world. *International Journal of Environmental Research and Public Health*, *19*(21), 14466.
20. Kossek, E. E., Ollier-Malaterre, A., Lee, M. D., Pichler, S., & Hall, D. T. (2016). Line managers' rationales for professionals' reduced-load work in embracing and ambivalent organizations. *Human Resource Management*, *55*(1), 143-171.
21. Landsbergis, P. (2018). Interventions to reduce job stress and improve work organization and worker health. *In Unhealthy workRoutledge*, 193-209.
22. Lastovkova, A., Carder, M., Rasmussen, H., Sjoberg, L., De Groene, G., Sauni, R., & Pelclova, D. (2018). Burnout syndrome as an occupational disease in the European Union: an exploratory study. *Industrial health*, *56*(2), 160-165.
23. Maresca, G., Corallo, F., Catanese, G., Formica, C., & Lo Buono, V. (2022). Coping strategies of healthcare professionals with burnout syndrome: a systematic review. *Medicina*, *58*(2), 327.
24. Maslach, C., & Jackson, S. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, 99-113.
25. Maslach, C., & Leiter, M. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World psychiatry*, *15*(2), 103-111.
26. Maslach, C., & Leiter, M. (2022). *The burnout challenge: Managing people's relationships with their jobs*. Harvard University Press.
27. Ren, Y., Song, H., Li, S., & Xiao, F. (2020). Mediating effects of nursing organizational climate on the relationships between empathy and burnout among clinical nurses. *Journal of Advanced Nursing*, *76*(11), 3048-3058.
28. Rose, DM, Seidler, A., Nübling, M., Latza, U., Brähler, E., Klein, EM, ... & Beutel, ME (2017). Asociaciones de la fatiga con el estrés laboral, la salud mental y física en una muestra comunitaria de trabajadores. *BMC Psychiatry*, *17* (1), 167.
29. Rugulies, R., Aust, B., & Madsen, I. (2016). Effort-reward imbalance and affective disorders. *In Work stress and health in a globalized economy: The model of effort-reward imbalance*. Cham: Springer International Publishing, 103-143.
30. Shanafelt, T., & Noseworthy, J. (2017). Executive leadership and physician well-being: nine organizational strategies to promote engagement and reduce burnout. *In Mayo clinic proceedings.Elsevier*, 129-146.

31. Venegas, C., Sánchez-Alfonso, A., Vesga, F., Martín, A., Celis-Zambrano, C., & González, M. (2022). Identification and evaluation of determining factors and actors in the management and use of biosolids through prospective analysis (micmac and mactor) and social networks. *Sustainability*, *14*(11), 6840.
32. Virtanen, L., Kaihlanen, A., Saukkonen, P., Reponen, J., Lääveri, T., Vehko, T., & Heponiemi, T. (2023). Associations of perceived changes in work due to digitalization and the amount of digital work with job strain among physicians: a national representative sample. *BMC medical informatics and decision making*, *23*(1).
33. Wahab, M., Tatoglu, E., Glaister, A., & Demirbag, M. (2020). Countering uncertainty: high-commitment work systems, performance, burnout and wellbeing in Malaysia. *The International Journal of Human Resource Management*, *32*(1), 24-48.
34. WMA. (2014). World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *The Journal of the American College of Dentists*, *81*(3), 14-18.
35. Zwetsloot, G. I. (2019). Shared values for health, safety and well-being at work. Creating psychologically healthy workplaces, 91-111.