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IMPACT OF ORGANIZATIONAL CLIMATE ON EMPLOYEE BURNOUT IN AN INDUSTRIAL COMPANY

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Abstract

Modern working conditions and the current economic situation are forcing employers to pay more attention to the organizational environment and its impact on workers' life. This research aims to identify those components of the organizational climate that contribute to mitigating employee burnout in the industrial sector. The theoretical part of the work is devoted to the analysis of scientific publications on burnout and organizational climate, key concepts and diagnostic measurements. An empirical quantitative study was conducted in a large company in February-March 2022, with 915 respondents surveyed. The results of multiple regression analysis showed that transformational leadership has a significant impact on reducing the feelings of exhaustion, cynicism and alienation; organizational clarity and ethical standards contribute to minimization of cynicism, and good work organization helps to reduce exhaustion. We came to the conclusion that the company's responsibility should not be limited to psychological assistance to employees and wellbeing programs, serious changes are needed in the organization of work and other aspects of the organizational climate to decrease employee burnout.

Keywords: *burnout, organizational climate, well-being*

1. INTRODUCTION

For many areas of life, including the world of work, the official announcement on March 11, 2020 by the World Health Organization of the outbreak of a new coronavirus infection as a global pandemic was a turning point. Experts note that the crisis has significantly hit the labor market, and its effects on the economy in the long term have yet to be felt (World Health Organization [WHO], 2022). In these conditions the studies that could offer fresh and, if possible, universal approaches to the evaluation of work capacity and efficiency improvement of an individual and a team become more urgent. At the same time, the issues of keeping a physically and mentally healthy employee and maintaining a favorable organizational climate remain a challenge for enterprises.

One of such organizations interested in workers' well-being is Energia¹, located in Russia (at the time of the research in 2022 it was a part of an international group). The company management

¹ For privacy reasons we cannot give the exact name of the company

set a task to determine the level of employees' burnout and to analyze which components of organizational climate positively influence the reduction of this level.

The goal of the research resulting from the practical problem was formulated as follows: to reveal and classify the interrelation between the aspects of organizational climate and characteristics of employees' burnout. In order to achieve this goal, it was necessary to explore theoretical approaches and empirical studies of burnout and organizational climate, form a model and hypotheses, collect quantitative data and analyze them, and prepare practical recommendations based on the results. A quantitative methodology was used to study the relationship between organizational climate and burnout, using an online survey and static analysis methods with SPSS software.

2. THEORETICAL BACKGROUND OF THE RESEARCH

2.1. The concept of organizational climate

By the early 2000s, more than three dozen different definitions of organizational climate and many competing models had been identified (Albrecht, 2014). Probably the most cited interpretation in the international academic community was the following: "Organizational climate is the shared meaning organizational members attach to the events, policies, practices, and procedures they experience and the behaviors they see being rewarded, supported, and expected" (Ehrhart, Schneider & Macey, 2013, p. 69). In terms of assessing the organizational climate, more than a dozen diagnostic questionnaires are known (Peña-Suárez, Muñiz, Campillo-Álvarez, Fonseca-Pedrero & García-Cueto, 2013).

2.2. Employee burnout concept

The works of Christina Maslach and colleagues, as well as her invention - Maslach Burnout Inventory (MBI) set a path on empirical researches of the burnout phenomenon around the world. According to W. Schaufeli, burnout is a psychological syndrome "defined as the final stage of a chronic exhaustion process that prevents employees from fulfilling their occupational roles (Schaufeli, 2017, p. 123). Three key aspects of this reaction" (see Figure 1) are emotional exhaustion, depersonalization, and decreased sense of accomplishment.

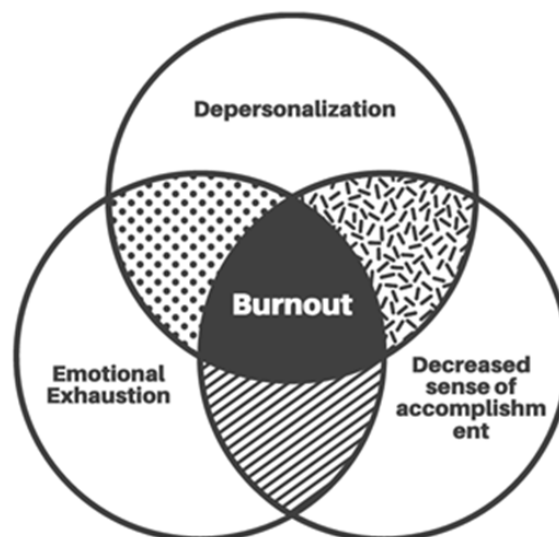


Figure 1 Components of burnout

Source: <https://physeo.com/burnout-a-complete-students-guide/>

Professional burnout was initially focused on helping professions, but with the development of statistical technologies and new methods, scientists became interested in other professional areas.

2.3. Influence of organizational climate on job burnout

In February 2023, a Google search for "organizational climate" and "burnout" yielded between 150,000 and 200,000 mentions. In the publicly available literature, Scopus had 3,986 citations on the topic of organizational climate, 44,980 references related to burnout, 822 document results on the topic of burnout, and only 284 of them contain both concepts (December, 2022). This suggests that research activity in this area has been ongoing for some time, and there is a tendency for researchers to increase their interest in considering the problem of burnout through the prism of the organizational climate. During the period of COVID-19 spread researchers noted that pandemic, though it did not lead to a transformation of burnout syndrome, but it certainly aggravated related forms of stress in professional activity (Lievens, 2021).

Materials devoted to the influence of organizational climate factors on burnout mostly refer to the fields of medicine (Shanafelt., Gorringer, Menaker, Storz., Reeves, Buskirk, Sloan & Swensen, 2015; Sterling, Rinne, Reddy, Moldestad, Kaboli, Helfrich, Henrikson, Nelson, Kaminetzky & Wong, 2021) and education (Lavian, 2012; Dinibutun, Kuzey & Dinc, 2020), from which the phenomenon study began in its time. The review of the literature shows that similar researches were conducted among Spanish civil servants (Pecino, Mañas, Díaz-Fúnez, Aguilar-Parra, Padilla-Góngora & López-Liria, 2019) and employees of Italian call centers (D'alleo & Santangelo, 2011). Again, they all agree in recognizing the relationship between organizational climate and burnout.

According to Maslach and Leiter (2022) a mismatch (or imbalance) between a person and work in six strategic areas has a decisive role in the formation of burnout. The sensitive areas include: (1) workload, (2) control, (3) fairness, (4) reward, (5) community, and (6) values.

The idea that burnout and organizational climate are related opens a rich field of possibilities for corresponding research in various areas of activity, where each researcher can become a kind of pioneer and innovator.

2.4. Theoretical Model and Hypotheses

Based on scientific publications and researches, a theoretical model was formed, a number of hypotheses were formulated. In order to make the theoretical framework of the research coherent and logical and to empirically verify it, the Maslach concept of burnout was chosen and supported by MBI. In order to select the components (or factors) of organizational climate, a systematization of the approaches of different authors was carried out, which is reflected in Table 1.

Table 1 Organizational Climate Factors

Organizational Climate Factors	Publications
Support	Lan et al., 2020; Martinussen, Richardsen & Burke, 2007; Pecino et al., 2019; Sharma & Cooper, 2016
Workload pressure, overtime work	D'Alleo & Santangelo, 2011; Dinibutun, Kuzey & Dinc, 2020; Martinussen et al., 2007; Sterling et al., 2022
Leadership	D'Alleo & Santangelo, 2011; Martinussen et al., 2007; O'driscoll & Schubert, 1988; Sterling et al., 2022
Cohesion, team	D'Alleo & Santangelo, 2011; Dinibutun et al., 2020
Participation, involvement	D'Alleo & Santangelo, 2011; Dinibutun et al., 2020
Reward	Lan et al., 2020; Sharma & Cooper, 2016; Sterling et al., 2022
Managerial competence	Dinibutun et al., 2020
Decision making	O'driscoll & Schubert, 1988
Communication	D'Alleo & Santangelo, 2011; O'driscoll & Schubert, 1988
Responsibility	Lan et al., 2020
Autonomy	D'Alleo & Santangelo, 2011; Martinussen et al., 2007; Sharma & Cooper, 2016; Sterling et al., 2022
Work organization, Organization boundaries, structure	D'Alleo & Santangelo, 2011; Lan et al., 2020; Sterling et al., 2022
Clarity of task, procedures and regulations, standards	D'Alleo & Santangelo, 2011; Dinibutun et al., 2020; Lan et al., 2020; Pecino et al., 2019
Organizational ethics, morale	Dinibutun et al., 2020
Safety	Sterling et al., 2022
Work conflict	Lan et al., 2020; Martinussen et al., 2007; Sterling et al., 2022
Growth Opportunities	Sterling et al., 2022
Innovation, development	D'Alleo & Santangelo, 2011; Pecino et al., 2019
Flexibility	Pecino et al., 2019
Training, change and development, learning atmosphere	D'Alleo & Santangelo, 2011; Sharma & Cooper, 2016
Identity	Lan et al., 2020; Sterling et al., 2022
Recognition and equity	D'Alleo & Santangelo, 2011
Freedom of expression	D'Alleo & Santangelo, 2011
Risk	Lan et al., 2020; Sterling et al., 2022
Environment	D'Alleo & Santangelo, 2011
Fairness	Sharma & Cooper, 2016

Further, six strategic areas highlighted by Maslach and Leiter were taken into consideration (Maslach & Leiter, 2022). As a result of comparison of the received large number of factors of organizational climate and categories of influence on burnout, the following factors were chosen to be included in theoretical model:

1. Organizational clarity
2. Safety culture
3. Autonomy and responsibility
4. Innovativeness
5. Standards
6. Work organization
7. Reward
8. Training and development
9. Relations between employees
10. Teamwork
11. Leadership
12. Standards of Ethics
13. Employee participation in management
14. Commitment to the company
15. Tolerance to mistakes

As a result, theoretical model of the research included connections between 15 components of organizational climate listed above and three components of burnout. Each of 45 connections could be formulated as a hypothesis. For example, a connection of the first factor with three burnout components could be formulated in three hypotheses:

- H1a: Organizational clarity has a significant inverse effect on emotional exhaustion
- H1b: Organizational clarity has a significant inverse effect on depersonalization
- H1c: Organizational clarity has a significant direct impact on personal accomplishment

The remaining hypotheses were formulated according to a similar algorithm. The developed theoretical model allowed us to proceed to the second, empirical stage of the study.

3. METHODOLOGY AND RESULTS OF THE EMPIRICAL STUDY

3.1. Methodology

The empirical study was conducted at Energia, with 1446 people employed as of March 2022. It was planned to conduct a semi-in-depth interview with company executives, but was changed to a mini-survey with a choice of 5 factors from a list of 15 organizational climate factors. The results were treated with caution, as often the perception of top managers does not coincide with the opinions of workers or specialists.

Based on the analysis of the data obtained from the mini-survey, the theoretical model was transformed, and an empirical research model was compiled. In addition to the five most popular factors among the interviewed participants (safety culture, ethics, autonomy and responsibility, work organization and employee relations), it included five more (organizational clarity, standards, reward, leadership and company commitment).

At the second stage, a survey of employees was conducted. To form the first block devoted to organizational climate, the CLIOR questionnaires (Peña-Suárez et al., 2013), and Survey of Organizational Characteristics (SOC) (Thumin & Thumin, 2011) were studied, as well as questionnaires previously used by the company in the 2020 and 2021 surveys. In the end, we formed a questionnaire of 32 questions on the topic of organizational climate, adapted to Energia and a block of questions on burnout by the MBI (22 questions).

Due to the requirement of a mandatory response, we received 100% completion of the questionnaire, the survey period was 13 days.

3.2. Results

3.2.1. Characteristics of the sample

The survey was conducted taking into account the provisions of the Russian legislation on information protection. In our case, the total number of respondents reached 915 people (65% of employees), of which 273 women and 642 men, 50% specialists, 46.3% workers and 3.7% managers (other data are given in Table 2).

The generalized portrait of the respondent is a man aged 45-54 year with work experience more than 10 years. It seems that employees with such average characteristics can objectively assess the factors of the organizational climate and their own psychological state.

Table 2 Characteristics of the sample by sex, age, categories of personnel and length of service in the company

Variable	Categories	Number of people	Percentage
Sex	Woman	273	30.00
	Man	642	70.00
	Total	915	100.00
Categories of personnel	Supervisor	134	14.65
	Specialist	485	53.00
	Worker	296	32.35
	Total	915	100.00
Age	18-24 years old	6	0.66
	25-34 years old	141	15.40
	35-44 years old	323	35.30
	45-54 years old	343	37.49
	Over 55 years old	102	11.15
	Total	915	100.00
Work experience	Up to one year	36	3.94
	1-3 years	49	5.35
	3-5 years	57	6.23
	5-10 years	101	11.04
	Over 10 years	672	73.44
	Total	915	100.00

3.2.2. Checking observed variables for normal distribution and reliability of measurement scales

Data processing was carried out in the IBM SPSS program, version 26. For confirmatory factor analysis, the AMOS application, version 22, was used.

The survey data analysis procedure consisted of several steps: checking the observed variables for normal distribution; verifying the reliability of scales for measuring organizational climate and employee burnout; conducting exploratory and confirmatory factor analysis and, finally, conducting regression analysis and testing hypotheses.

The Shapiro-Wilk test was used to determine if the analyzed quantitative variables obeyed the law of normal distribution. The analysis showed that the variables did not follow the law ($p < 0.001$). Histograms constructed for each variable showed a shift of the curve to the right, suggesting respondents answered most of the questions in the affirmative. Despite this, studies of social processes often use non-parametric and parametric methods of statistics.

The reliability of the measurement scales of organizational climate and burnout factor was tested using the Cronbach's Alpha coefficient. The "autonomy" factor was excluded due to its negative value. The alpha values of other organizational climate factors range from 0.659 to 0.853, while the alpha values of the burnout variables were high.

3.2.3. Exploratory and confirmatory factor analysis

The next step was to conduct an exploratory factor analysis of 10 organizational climate factors and 3 burnout factors to reduce the dimension of the scales. The method of principal components was chosen as the method of extracting factors, and a table of explained cumulative variance was compiled from which two conclusions followed. The cumulative variance explained was 61.305%, and the component matrix showed which variables load the factor the most. The next step was to try to extract 6 components using varimax rotation and highlight those factors that show a load of more than 0.6. However, it was difficult to interpret the result.

The Kaiser-Meier-Olkin (KMO) sample was used to conduct a factor analysis for a limited number of questions. The factors that passed through the two filters were organizational clarity, safety culture, work organization, reward, employee relations, leadership and ethical standards. When considering the rotated matrix of components, it was found that the factor structure almost completely coincided with the theory. One new factor was formed by merging the parameters of leadership and relationships between employees and was called transformational leadership. This is also confirmed by current research (Santoso, Sulistyningtyas & Pratama, 2022). Other factors included ethics, safety, work organization and organizational clarity. The five factors together account for 74.3% of the total variance, which is above the recommended threshold of 60% (Hair, Anderson, Tatham & Black, 2010).

An exploratory factor analysis for burnout was carried out in a similar way. Factor selection method: principal component method. Rotation method: Varimax with Kaiser-Meyer-Olkin normalization.

Burnout factors were calculated in a matrix similar to the Maslach questionnaire.

Confirmatory factor analysis showed that the standard minimum was reached for organizational climate and burnout variables. However, one of the criteria for confirming the model is also considered to be insignificant indicators of the Pearson chi-square test, which in our case was found both in relation to organizational climate factors ($\chi^2 = 267.013, p < 0.001$), and in terms of burnout factors ($\chi^2 = 1721.773, p < 0.001$). The scientific literature describes the existing limitations on the use of the chi-square test as an index of model fit. In particular, it is important to understand that the test is sensitive to sample size: larger sample sizes reduce the p-value where a trivial mismatch can be found (Alavi, Visentin, Thapa, Hunt, Watson & Cleary, 2020). The study used a large number of respondents, allowing for the correct model to be erroneously excluded or omitted. A deep dive into other numerical indicators confirmed the adequacy of the model, with significant results achieved.

Table 3 Model Fit Summary

	CMIN/df	comparative fit index (CFI)	incremental fit index (IFI)	Tucker–Lewis index (TLI)	relative fit index (RFI)	Root mean square error of approximation (RMSEA)
organizational climate	3,985	,966	,966	,954	,939	,057
burnout	8,358	,865	,866	,849	,832	,090

It is considered optimal to have coefficients for IFI and RFI above 0.9 (as follows from Table 3, burnout factors do not reach this limit a little). Guided by the comments of American authors Bagozzi and Yi (1988), we believe that the minimum discrepancies with the expected indicators in this case may not be taken into account.

After the implementation of exploratory factor analysis and confirmatory factor analysis and the reduction in the number of organizational climate factors, new research hypotheses were formulated. We divided them into 5 blocks in accordance with the identified number of organizational climate factors: transformational leadership, organizational clarity, safety culture, work organization and ethical standards.

3.2.4. Regression analysis and hypothesis testing

The survey was conducted taking into account the provisions of the Russian legislation on information protection.

In order to study the impact of organizational climate on burnout and test hypotheses, three separate multiple regression analyzes were performed for each of the three burnout factors taken as

dependent variables. All components of the organizational climate, taken as independent variables, acted as predictors.

Regression analysis with 5 organizational climate factors as predictors and emotional exhaustion as a criterion showed that organizational climate factors effectively predict the outcome of emotional exhaustion ($F(5,909) = 94.931, p < 0.01$). The model proved to be significant, the combined factors of the organizational climate explain about 34% of the dispersion of emotional exhaustion. Further study of the results, that are values of the beta coefficients, showed that all but one variable (namely ethical standards) make a significant contribution to the model. The variables that contributed the most to the model were transformational leadership and work organization.

Using the "Personal accomplishment" as a criterion, a significant regression model was also obtained ($F(5, 909) = 42.284, p < 0.01$), which explains about 19% of the variance in personal accomplishment. In this case, only the work organization variable does not show a significant contribution to the model, while in relation to the transformational leadership variable, we fix the highest significance, which we identify based on the size of the beta coefficients.

In the case when such a burnout factor as depersonalization acted as a criterion, a significant regression model was again obtained ($F(5.909)=18.569, p < 0.01$), however, the percentage of explained variance decreased and amounted to about 9%. This time, the organization of work and safety culture do not show a significant contribution to the model, while transformational leadership shows the greatest significance.

Table 4 Key regression parameters

Variable	Estimate of the regression coefficient, β	Value of the t-test	Significance
Emotional exhaustion			
Transformational Leadership	-0,207	-7,703	0,000***
Safety	-0,059	-2,207	0,028*
Organizational clarity	-0,060	-2,240	0,025*
Work Organization	-0,540	-20,102	0,000***
Ethics	-0,031	-1.154	0,249
Depersonalization			
Transformational Leadership	-0,248	-7,843	0,000***
Safety	-0,049	-1,544	0,123
Organizational clarity	-0,132	-4,166	0,000***
Work Organization	-0,033	-1,059	0,290
Ethics	-0,102	-3,237	0,001**
Personal accomplishment			
Transformational Leadership	0,296	9,899	0,000***
Safety	0,215	7,190	0,000***
Organizational clarity	0,158	5,280	0,000***
Work Organization	-0,032	-1,065	0,287
Ethics	0,171	5,720	0,000***

Most hypotheses were confirmed, and a significant relationship was found between organizational climate factors and employee burnout. Not all hypotheses were confirmed: a number of organizational climate factors make a significant contribution to the model, however, the relationship was not reversed, but direct. In terms of hypotheses, a significant contribution to predicting employee burnout was not found.

Table 5 Research hypotheses and the results of their verification

Number and formulation of the hypothesis	Test result
H1a: Transformational leadership has a significant inverse effect on emotional exhaustion	Confirmed
H1b: Transformational leadership has a significant inverse effect on depersonalization	Confirmed
H1c: Transformational leadership has a significant direct impact on personal accomplishment	Confirmed
H2a: Organizational clarity has a significant inverse effect on emotional exhaustion	Partially confirmed
H2b: Organizational clarity has a significant inverse effect on depersonalization	Confirmed
H2c: Organizational clarity has a significant direct impact on personal accomplishment	Confirmed
H3a: Safety culture has a significant inverse effect on emotional exhaustion	Partially confirmed
H3b: Safety culture has a significant inverse effect on depersonalization	Rejected
H3c: Safety culture has a significant direct impact on personal accomplishment	Confirmed
H4a: Work organization has a significant inverse effect on emotional exhaustion	Confirmed
H4b: Work organization has a significant inverse effect on depersonalization	Rejected
H4c: Work organization has a significant direct impact on personal accomplishment	Rejected
H5a: Ethical norms have a significant inverse effect on emotional exhaustion	Rejected
H5b: Ethical norms have a significant inverse effect on depersonalization	Confirmed
H5c: Ethical norms have a significant direct impact on personal accomplishment	Confirmed

4. DISCUSSION OF RESULTS

The results obtained show a significant impact on employees' perception of their professional roles, success and themselves as a professional of such organizational climate factors as transformational leadership and work organization - they significantly affect emotional exhaustion, one of the three components of burnout. If employees see the results of successful management in the above areas, then they experience a decrease in the level of emotional exhaustion. According to other studies, this type of climate ensures the transparency of processes in the organization and encourages employees to actively participate in the decision-making process (Dinibutun et al., 2020). A good work organization, in turn, contributes to the work-life balance and avoids forced overtime, which is also fundamentally important for the well-being of employees in the company's perimeter. Workload inconsistency with human capabilities is usually perceived as an excessive burden, and excessive demands from the employer deplete the employee's resources to such an extent that recovery becomes impossible (Gabriel & Aguinis, 2022). Although the workload mismatch may be the result of an incorrect specialization of the worker, which may be the result of an incorrect selection or selection of the worker himself (Maslach, Schaufeli & Leiter 2001).

Organizational clarity is a factor that means high awareness of the staff about the prospects of the company, about the requirements of management to the employee, together with the transformational leadership factor, have a significant impact on another component of burnout - depersonalization. The higher the organizational clarity and the more positively the employee evaluates the leadership of managers and the quality of communication with colleagues, the lower the level of depersonalization. Another factor is that ethical norms affect the level of staff depersonalization, but to a lesser extent than organizational clarity and transformational leadership.

As noted in the results section, for the company-object of the study, the most critical of the characteristics of burnout was the component of "Personal accomplishment". It has been statistically confirmed that four organizational climate factors (transformational leadership, security, organizational clarity, and ethical norms) influence personal accomplishment. However, this conclusion needs additional verification, since other factors could also have influenced the high scores of this indicator in a relatively small group of employees of the surveyed company.

Let's pay attention to the combination of leadership and communication variables, made after testing the reliability of data and empirical constructs of organizational climate. Significant in themselves, after the period of COVID-19, the symbiosis of these factors turns out to be more important for the company, which we have combined under the name "transformational

leadership”, as the closest theoretical concept in content. It is this synthetic variable that is associated with the productive states of employees, such as "happiness"; "mental health"; "psychological well-being" (Kelloway, Turner, Barling & Loughlin, 2012), which leads to an increase in their productivity [Braun et al., 2013]. Therefore, the recommendation of the study is to transform leadership based on the vision of the future and the stability of the company in a situation of uncertainty. Managers need real tools of influence, taking into account the needs of employees, the ability to provide them with resources to meet existing needs (Kloutsiniotis, Mihail, Mylonas & Pateli., 2022).

The work organization factor has a significant impact on emotional exhaustion, as it creates an imbalance between a large number of requirements and a small amount of resources (Maslach & Leiter, 2022). To prevent this, HR managers and top managers must optimize the organization of work in terms of planning, forced breaks, routine work or unforeseen tasks.

5. CONCLUSION

The article presents the results of a study of the relationship between organizational climate aspects and employee burnout characteristics in a large company, that is actively involved in the health and well-being of employees.

A significant inverse relationship was found between organizational climate factors and employee burnout. Thus, transformational leadership has the opposite effect on emotional exhaustion and depersonalization. Organizational clarity has a significant inverse effect on depersonalization; work organization has a significant inverse effect on emotional exhaustion, and ethical norms have a significant inverse effect on depersonalization.

The study has a number of limitations, such as the design of the questionnaire, organization, and lack of a threshold for variable indicators. It also has a sensitivity to statistical methods, primarily confirmatory factor analysis, which can lead to socially desirable responses. These limitations are associated with objective reasons and reveal further prospects for future research.

To sum up, the study could be of value to HR managers as well as organizational climate and burnout researchers. The scientific significance of the study lies in the systematization of approaches and metrics for measuring burnout and organizational climate; as well as testing the relationship between organizational climate factors and burnout rates using the example of a large company in Russia.

REFERENCES

- Alavi, M., Visentin, D. C., Thapa, D. K., Hunt, G. E., Watson, R. & Cleary, M. 2020. Chi-square for model fit in confirmatory factor analysis. *Journal of Advanced Nursing* 76(9), 2209–2211. <https://doi.org/10.1111/jan.14399>
- Albrecht, S. L. (2014). A Climate for Engagement: Some Theory, Models, Measures, Research, and Practical Applications. In: B. Schneider & K. M. Barbera (Eds.), *The Oxford Handbook of Organizational Climate and Culture*, (pp. 400–414). Oxford University Press.
- Bagozzi, R.P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science* 16, 74–94. <https://doi.org/10.1007/BF02723327>
- D’Alleo, G. & Santangelo, A. (2011). Organizational climate and burnout in call-center operators. *Procedia - Social and Behavioral Sciences* 30, 1608–1615. <https://doi.org/10.1016/j.sbspro.2011.10.312>
- Dinibutun, S. R., Kuzey, C. & Dinc, M.S. (2020). The Effect of Organizational Climate on Faculty Burnout at State and Private Universities: A Comparative Analysis. *SAGE Open*. <https://journals.sagepub.com/>. <https://doi.org/10.1177/2158244020979175>
- Ehrhart, M. G., Schneider, B. & Macey, W. H. (2013). *Organizational Climate and Culture: An Introduction to Theory, Research, and Practice*. Routledge. <https://doi.org/10.4324/9781315857664>

- Gabriel, K. P. & Aguinis, H. (2022). How to prevent and combat employee burnout and create healthier workplaces during crises and beyond. *Business Horizons*, Elsevier, 65(2), 183-192. <https://doi.org/10.1016/j.bushor.2021.02.037>
- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L. & Black, W. C. (2010). *Multivariate data analysis with readings* (7th ed.). Prentice Hall.
- Kelloway, E. K., Turner, N., Barling & Catherine Loughlin (2012) Transformational leadership and employee psychological well-being: The mediating role of employee trust in leadership, *Work & Stress*, 26:1, 39-55. <https://doi.org/10.1080/02678373.2012.660774>
- Kloutsiniotis, P. V., Mihail, D.M., Mylonas N. & Pateli A. (2022). Transformational Leadership, HRM practices and burnout during the COVID-19 pandemic: The role of personal stress, anxiety, and workplace loneliness. *International Journal of Hospitality Management*, 102, 1-14. <https://doi.org/10.1016/j.ijhm.2022.103177>
- Lan, Y. L., Huang, W. T., Kao, C. L. & Wang, H.J. (2020). The relationship between organizational climate, job stress, workplace burnout, and retention of pharmacists. *Journal of Occupational Health* 62(1). 1-9. <https://doi.org/10.1002/1348-9585.12079>
- Lavian, R. H. (2012). The Impact of Organizational Climate on Burnout among Homeroom Teachers and Special Education Teachers (Full Classes/Individual Pupils) in Mainstream Schools. *Teachers and Teaching: Theory and Practice* 18(2), 233–247. <https://doi.org/10.1080/13540602.2012.632272>
- Lievens D. (2021). How the Pandemic Exacerbated Burnout. URL: <https://hbr.org/2021/02/how-the-pandemic-exacerbated-burnout>
- Martinussen, M., Richardsen, A.M. & Burke, R. J., (2007), Job demands, job resources, and burnout among police officers, *Journal of Criminal Justice*, 35(3), 239-249. <https://EconPapers.repec.org>. <https://doi.org/10.1016/j.jcrimjus.2007.03.001>
- Maslach, C., Leiter, M.P. (2022). *The Burnout Challenge. Managing People's Relationships with Their Jobs*. Harvard University Press. <https://doi.org/10.2307/j.ctv30hx4qc>; <https://doi.org/10.4159/9780674287297>
- Maslach, C., Schaufeli, W. B. & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology* 52, 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- O'Driscoll, M. P. & Schubert, T. (1988). Organizational climate and burnout in a New Zealand social service agency. *Work & Stress* 2(3), 199–204. <https://doi.org/10.1080/02678378808259167>
- Pecino, V., Mañas, M. A., Díaz-Fúnez, P. A., Aguilar-Parra, J. M., Padilla-Góngora D. & López-Liria, R. (2019). Organisational Climate, Role Stress, and Public Employees' Job Satisfaction. *International journal of environmental research and public health* 16(10), 12-21. <https://doi.org/10.3390/ijerph16101792>
- Peña-Suárez, E., Muñoz, J., Campillo-Álvarez, Á., Fonseca-Pedrero, E. & García-Cueto, E. (2013). Assessing organizational climate: Psychometric properties of the CLIOR Scale. *Psicothema* 25(1), 137–144.
- Santoso, N. R., Sulistyningtyas, I. D. & Pratama, B. P. (2022). Transformational Leadership During the COVID-19 Pandemic: Strengthening Employee Engagement Through Internal Communication. *Journal of Communication Inquiry*, 1–24. <https://doi.org/10.1177/01968599221095182>
- Schaufeli, W. B. (2017). Burnout: A Short Socio-Cultural History. In: S. Neckel, A. K. Schaffner & G. Wagner (Eds.). *Burnout, fatigue, exhaustion: An interdisciplinary perspective on a modern affliction*, (pp. 105–128). Springer. <https://doi.org/10.1016/j.burn.2017.06.002>; <https://doi.org/10.1016/j.burn.2017.06.001>
- Shanafelt, T. D., Gorringer, G., Menaker, R., Storz, K. A., Reeves, D., Buskirk, S. J., Sloan, J. A. & Swensen, S. J. (2015). Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clin Proc* 90(4), 432–40. <https://doi.org/10.1016/j.mayocp.2015.01.012>
- Sharma, R. R. & Cooper, C. (2016). *Executive Burnout: Eastern and Western Concepts, Models, and Approaches for Mitigation*. Emerald Publishing. <https://doi.org/10.1108/9781786352859>
- Sterling, R., Rinne, S. T., Reddy, A., Moldestad, M., Kaboli, P., Helfrich, C.D., Henrikson, N.B., Nelson, K.M., Kaminetzky, C. & Wong, E.S. (2022). Identifying and Prioritizing Workplace Climate Predictors of Burnout Among VHA Primary Care Physicians. *J Gen Intern Med* 37(1), 87–94. <https://doi.org/10.1007/s11606-021-07006-x>
- Thumin, F. J. & Thumin, L. J. (2011). The measurement and interpretation of organizational climate. *The Journal of Psychology: Interdisciplinary and Applied* 145(2), 93–109. <https://doi.org/10.1080/00223980.2010.538754>
- WHO. (2022). WHO and ILO call for new measures to tackle mental health issues at work. URL: <https://www.who.int/finland/news/item/28-09-2022-who-and-ilo-call-for-new-measures-to-tackle-mental-health-issues-at-work>