National Research University "Higher School of Economics"

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The qualities of a "healthy" office and their correlation to the psychological well-being of employees

Dissertation Summary
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1. Pavlova, M. V., Nartova-Bochaver, S. K. (2020). Routine self-help behaviors of employees (in case of Architect offices). *Organizational Psychology*. 10. (3), 164 - 184.

2. Pavlova, M. V. (2022). Biophilic and Salutogenic design in creating a "healthy" office. *Communications. Media. Design*. 7(2), 97-124.

3. Pavlova, M. V., Dzyubenko, M. M., Nartova-Bochaver, S. K. (2022). The *Organizational Cynicism* Scale: an Adaptation on the Russian-Speaking Sample. *Social Psychology and Society.* 13 (3), 184 - 200.

4. Pavlova, M.V., Reznichenko S. I., Nartova-Bochaver S. K. (2023). A New Instrument to Measure Healthy Workplace Qualities: The *People in the Office* Scale. *Frontiers in Psychology*. 14. doi: 10.3389/fpsyg.2023.1241555

Introduction

The relevance of this research is based on the significant role of the office environment in the life of employees. The office is considered by us, in a broad sense, as a synonym of the work environment (workplace), a multi-functional physical space and strategic resource, which facilitates the effectiveness of the productive activities of the employees, the strengthening of their health and their psychological well-being.

According to the World Health Organization (WHO and Burton, 2010), a "healthy" office is defined as a space of cooperation between workers and managers, which is constantly improved so as to protect and enhance the health of workers, along with their safety and well-being, and also for the sustainability of the organization. In this context, ergonomics, while being a scientific discipline studying work processes with the aim of creating optimal working conditions which increase productivity by meeting the needs of workers (IEA, 2003), does include fostering a healthy physical office space. However, the full realization of these efforts in practice often remains unattainable, and demands special attention.

Our research is oriented towards the analysis of the correlation between a friendly office environment and employees' personal and social well-being. We will therefore define the principal concepts. Social well-being embraces both family and professional aspects, implying the integration of the individual in the family and at work, as well as his perception as being a valued member of these groups (Keyes, 1998). A friendly environment according to Horelli's definition (2007) is a space which creates conditions for the fulfillment of personal and collective goals which leads to an increase of one's subjective well-being. Subjective well-being, as Diener describes (1984), is a combination of a high level of positive emotions, a minimal level of negative emotions and a general feeling of life satisfaction.

In post Covid-2019 times, key living environments were broadened in their functionality. The home environment developed the features of a professional or studying space, while the office began to include optional modalities for non-professional life (rehabilitation, education, meals, training, and even communication with family and pets, etc.). These changes reflect not only the evolution of the workspace but also the rethinking

of the role of workers in the context of humanistic psychology. - Today the worker is not only considered to be someone who performs work duties but also a subject of professional and personal self-realization and the holder of a professional identity (Kolpachnikov, Tischova, 2016; Schtroo, 2016).

Moreover, until now there have been no standardized methods studying the subjective perception of an office by a worker concerning the aspect of professional and private life affordances. Current research is oriented towards studying the role of the office environment in maintaining employees' psychological well-being.

The scientific and practical significance of this research stems from: 1) the objective change in the environment/work schedule of contemporary professionals, 2) a shift to a more human paradigm of attitude towards specialists, 3) the increasing need to develop standardized methods for assessing office environments, in light of the aforementioned changes.

Research problem

Despite the recognized significance of a humanistic approach towards the personality of the working person, no evidence-based models describing the possible contribution of office environment parameters to the psychological well-being of the worker have been created.

The research problem is the study of the physical space of the office environment as a possible predictor of the subjective well-being of workers. The solution of the problem includes the following stages: the identification of the qualities of the workspace that are important for effective work, the creation of standardized tools for their subjective assessment, the building of predictive models describing the office qualities contributing to the three parameters of office well-being.

State of development of the research problem

Modern, "green" building standards aimed at improving health and quality of life (BREEAM, LEED, WELL and Fitwel®) are used within the framework of corporate strategies around the world. However, the factor of subjective perception of these environments is often overlooked.

According to the Ecological Theory of Stress (Selye, 1976; Edwards et al., 1998; Armitage, Nassor Amar, 2021; De Cooman, Vleugels, 2022), as well as the Job Demands-Resources (JD-R) Theory (Bakker, Demerouti, 2017), stress occurs when environmental demands exceed a person's personal resources, which can become a cause of illness. Although the sources of occupational stress are varied, a friendly office environment may, to some extent, restore employees' resources (Clements-Croome, 2019; Bergefurt et al., 2022).

Aaron Antonovsky's **Salutogenesis Theory** (from Latin "salus" for "health" and "genesis" for "origin") is focused on factors facilitating the maintenance of health, as opposed to those causing illness (Antonovsky, 1996). Salutogenic design is aimed at creating environments that contribute to the preservation of health and well-being in the broad sense of the word.

Antonovsky emphasizes the importance of a "sense of coherence" for positive human functioning. This feeling includes understanding (Comprehensibility), manageability (Manageability) and meaning (Meaningfulness) of life in various spheres of its manifestation. In relation to professional life, the heuristic concept of a "sense of coherence" lies in the fact that it guides researchers and staff to study the parameters of the professional environment that would be changeable and meaningful for one's personal narrative and professional biography.

Attaining balance between work and family life is an important factor for employees' well-being. Research analysing the role of the working space in this balance has shown that the office can be perceived as more attractive (Hochschild, 2003; Damaske et al, 2014; Lott, Wöhrmann, 2023) and less stressful in comparison to one's home, thanks to clearly defined tasks and less emotional burden. However, this can lead to less time spent at home by employees which can worsen family relations and the home microclimate.

Research into the phenomena of workaholism and pathological work engagement (Snir, Harpaz, 2012; Innstrand et al., 2022) indicates that an effective balance between work life and home commitments is key to the overall well-being of employees.

Therefore, it can be assumed that an ideally comfortable office may have a contradictory impact on maintaining a stable balance between professional and personal life.

Loyalty to the organization, marked by a low level of organizational cynicism, is an indication of social well-being in the work environment. It is associated with employees' engagement and satisfaction. Loyal employees strengthen corporate culture and reduce staff turnover, thus increasing work effectiveness (Arslan, 2018; Panchali, Seneviratne, 2019).

The **parameters of a healthy office** are represented by building standards and they include adjustable temperature and humidity control, minimization of noise and unpleasant odors, quality lighting and comfortable work places. Apart from following these standards, it is advisable to create spatial affordances in the office which enable the restoration, stimulation and raising of employees' energy levels throughout the day (Pavlova, Nartova-Bochaver, 2020). This includes the organization of key zones of a "healthy" office: quiet areas looking out over nature, areas for physical activity, green spaces for interacting with nature, spaces for training, relaxation and sleep, areas for meals and coffee breaks, showers, etc.

Environmental conditions encouraging employees to engage in healthy and rewarding activities help satisfy their needs for autonomy, competence, and coherence. According to the Self-determination Theory (Deci, Ryan, 2008), when the office space satisfies these needs rather than restricting them, it significantly enhances employees' autonomous motivation, promotes their professional growth and overall well-being.

Offices, as centers of professional interaction and networking, play an important role in the exchange of knowledge and ideas, which constitutes a defining factor for development and career growth. A well-designed office space can significantly influence employees' creativity: for example, high ceilings promote creative thinking by providing freedom and space, while low ceilings promote better concentration (McCoy, 2005; Meyers-Levy and Zhu, 2007).

Research carried out in the field of Occupational Health Psychology has revealed that lighting quality, noise levels, and air quality influence employees' stress levels, alertness, and mood (Bergefurt et al., 2022; Kropman et al., 2023). Open plan office

layouts, which are often chosen for their cost effectiveness, reduce the level of satisfaction with the environment due to a lack of privacy (Haapakangas et al., 2022).

At the same time the influence of the office environment is ambiguous and frequently has an indirect character. According to the Herzberg's Motivation-Hygiene Theory (Herzberg et al., 1959), office qualities are hygiene factors that can potentially reduce employees' dissatisfaction, but do not always directly affect their motivation or productivity. The Warr's Vitamin Model of Job Satisfaction (Warr, 1994) stresses the analogy between the impact of various aspects of the work environment on mental health and the role of vitamins in physical health. Similarly, F. Herzberg, P. Warr draws attention to the complex and non-linear nature of the relationship between the office environment and psychological well-being, and also to the fact that different people may perceive elements of the work environment differently, depending on their individual needs, work experience and stress resistance.

It is important that architects, management and the professional community are well informed of the concrete influence of office environment qualities on employees' well-being.

Biophilic Design incorporates natural materials, natural elements, scents and sounds as a means to enhance physical and mental health. Research (Browning, Ryan, Clancy, 2014) identified 14 Biophilic Design patterns (nature in space - connection with nature, non-visual connection with nature, non-rhythmic sensory stimuli, variability of heat and air flow; nature analogues - biomorphic forms and patterns, material connection with nature, complexity and order), etc., which all have a positive effect on a person's psychological condition, sensory perception and general well-being.

The role of demographic factors and job characteristics in the perception of the work environment. Subjective perception of the qualities of the work environment, including attitudes toward office design and layout, are not universal and depend on workers' demographics, such as gender and age (McElroy and Morrow, 2010; Joy and Haynes, 2011; Bae et al., 2020). Satisfaction with various aspects of the office environment, such as thermal comfort, lighting, acoustics, privacy and office layout, varies among men and women of different ages. Office environment assessment can be

also be influenced by job characteristics, including work experience, daily amount of time spent in the office, size of city of residence, and accessibility of transportation to the office. Given that data on these issues is often contradictory, it is important to consider these demographic and work factors in studies as relevant variables.

Object and subject of research

Object of research: individual's interaction with work environment

Subject of research: connection between the physical qualities of the office environment and employees' psychological well-being:

a) general subjective well-being, b) family dynamics and c) organizational loyalty.

Purpose of the study: To explore the role of perception of office space in enhancing the psychological well-being of employees.

Research objectives

Theoretical

- Analysis of theoretical and empirical research of the office environment and its connection to psychological well-being,

- Analysis of the basic theoretical approaches to the assessment of the qualities of the built environment.

Methodological

- Definition of the tools for the creation of a healthy office and a worker-friendly office environment,

- Adaption of the *Organizational Cynicism* scale to Russian culture (Brandes, Dharwadkar, Dean, 1999) in Bellini, Ramaci, & Bonaiuto (2015)'s version,

- Development of standardized methods of physical office environment assessment.

Empirical

- Analysis of data for identifying connections between office environment characteristics and employees' well-being,

- The building of an empirical predictive model demonstrating the effects of the different qualities of the environment on different components of psychological well-being.

Research Hypothesis

General hypothesis: the qualities of the office environment are positively related to employees' psychological, personal, family and social well-being.

Particular hypotheses:

H1. A "healthy" office environment is positively related to the subjective well-being of the employee.

H2a. A "healthy" office environment is negatively related to an employee's family dynamics.

H2b. The relationships between the friendliness of the office environment, the amount of time spent at work, and the family dynamics are moderated by gender (they are stronger for women).

H3. The more employee-friendly the office environment, the lower the employee's organizational cynicism and, accordingly, the higher his loyalty to the organization.

Theoretical and methodological basics of research

The theoretical basis of the research consists of the following scientific areas and theories. 1. Everyday Psychology and Environmental Stress Theory (Selye, 1976; Edwards et al., 1998; Edwards, Cooper, 2013; Nartova-Bochaver, 2019; De Cooman, Vleugels, 2022), 2. Positive psychology (Seligman, 2002; Csikszentmihalyi, 2008; Fredrickson, 2009). 3. Cultural Clinical Psychology (spontaneous self-help techniques) (Wroldsen, Follestad, 2018; Cheung, 2019). 4. Theory of Salutogenesis, ideas of salutogenic design (Antonovsky, 1996; Timm et al., 2018; Ivanoff, Podolskiy, 2021; Golembiewski, 2022). 5. Biophilic design ideas (Browning et al., 2014; Kellert, and Calabrese, 2015; Hähn et al, 2020; Al-Dmour et al., 2021).

Scientific novelty of the research

1. Empirical predictive models have been built, demonstrating the effects of the qualities of the environments on various components of the psychological well-being of employees.

2. It has been revealed that the relationship between the qualities of a "healthy" office and psychological well-being vary depending on gender, age, work experience, time spent in the office and the convenience of the office location.

3. It was found that the relationships between a "healthy" office and psychological well-being are indirect and manifest themselves through the restorative aspects of the environment (*Being Away, Fascination, Compatibility*).

4. A negative relationship was found between a friendly office environment and organizational cynicism.

5. All relationships are specified: predictors of personal, family, and social psychological well-being are different patterns of qualities of a "healthy" office.

Theoretical and practical significance of the research

1. For the first time, an innovative interdisciplinary approach to office space design has been developed, integrating adaptive employee behavior with the principles of positive psychology and modern design for the creation of a "healthy" office.

2. The conceptualization of a "healthy" office has been realized; its characteristics have been theoretically substantiated and empirically verified.

3. The relationship between the physical office environment qualities and employees' well-being has been proved.

Practical significance of the research

1. The *Organizational Cynicism Scale* (Brandes, Dharwadkar, Dean, 1999) has been adapted, consisting of 3 subscales*: Cognitive aspect* (5 items), *Emotional aspect* (3 items), and *Behavioral aspect* (5 items) of organizational cynicism, totaling 13 statements.

2. A unifactorial *Workplace Qualities Checklist* has been developed, comprising 9 blocks: City infrastructure and office, Individual work, Teamwork, Office space requirements, Restoration, Communication, Self-presentation, Personal Development, Attachment to the office; with 56 statements. It is user-friendly for data usage and interpretation, though its application does not support deep statistical analysis.

3. A five-factor scale, *People in the Office* has been developed, including subscales for *Ergonomics* (7), *Internal Communication* (4), *External Infrastructure* (4), *Freedom of Action* (7), and *Workplace as a Life Narrative* (5), totaling 27 statements. This instrument can be applied both in practical efforts to optimize the office environment and in scientific research.

Statements presented for Dissertation defense

1. The qualities of a "healthy" office environment are positively related to employees' psychological well-being: subjective well-being, family dynamics and loyalty to the organization. These relationships are weak but significant.

2. The qualities of a "healthy" office are related to the psychological well-being of the employees; however, their perception differs depending on the level of well-being (low/high) of the workers. The most notable differences relate to Individual and Team Work, Office Space Requirements, Communications, Self-presentation and Office Attachment.

3. The relationships between the qualities of a "healthy" office and the general indicator of psychological well-being are indirect and manifest themselves through the restorative aspects of the environment. *Fascination* and *Compatibility* of the environment with employee needs are positively related to well-being, while *Being Away* is negatively related.

4. The qualities of a "healthy office" contribute significantly to reducing the level of organizational cynicism in its three manifestations. Office *Ergonomics* and the possibility of *Being Away* reduce *Behavioral* manifestations of cynicism, while opportunities for effective *Internal Communications* weaken *Cognitive* cynicism, and the perception of the office as a significant part of life reduces *Emotional* cynicism.

5. Contrary to expectations, the quality of the office environment and working conditions make an ambiguous, but rather positive contribution to the *Family Dynamics*. Thus, the quality of the *External Infrastructure* and the *Fascination* of the workplace are positively related to the family atmosphere. However, *Freedom of Action* and office characteristics that promote *Being Away* can negatively impact the *Family Dynamics*.

6. The relationships between office qualities and family well-being parameters differ for men and women. For women, there is a stronger connection between the amount of time spent in the office and experiencing *Affection* in family relationships, while *Freedom of Action* at work has a negative correlation with experiencing *Love*. The positive impact of the office's *External Infrastructure* on *Family Dynamics* is significant only for men.

7. An additional significant result of the study were the new methodological tools that were developed. This includes the adaptation of the *Organizational Cynicism* scale and the creation of authoring tools for assessing the subjective perception of the office space by employees: The *Workplace Qualities Checklist* and the five-factor *People in the Office Scale*.

Approbation of research results

Research results have been presented in the following international conferences:

The XXII and XXIII International April Conferences (2021, 2022) with presentations: "The "healthy" office: opportunities to enhance psychological well-being" and «Development of a New Instrument 'The Quality of the Workplace Scale'».

The XIV St. Petersburg Medical Forum and Conference "Harmony in the interior. Color and Graphics" in St. Petersburg (2021), presentation on "Psychological aspects of creating a comfortable working environment".

The International Forum ArkhMoskva (2023), presentation "Healthy office as a factor of the psychological well-being of employees".

The research has been presented in four authors' publications, including one in a Q2 journal. All four publications are on the HSE "white list".

5. Pavlova, M. V., Nartova-Bochaver, S. K. (2020). Routine self-help behaviors of employees (in case of Architect offices). *Organizational Psychology*. 10. (3), 164 - 184.

6. Pavlova, M. V. (2022). Biophilic and Salutogenic design in creating a "healthy" office. *Communications. Media. Design*. 7(2), 97-124.

7. Pavlova, M. V., Dzyubenko, M. M., Nartova-Bochaver, S. K. (2022). The *Organizational Cynicism* Scale: an Adaptation on the Russian-Speaking Sample. *Social Psychology and Society*. 13 (3), 184 - 200.

8. Pavlova, M.V., Reznichenko S. I., Nartova-Bochaver S. K. (2023). A New Instrument to Measure Healthy Workplace Qualities: The *People in the Office* Scale. *Frontiers in Psychology*. 14. doi: 10.3389/fpsyg.2023.1241555

Creation and adaptation of Methods

The arsenal of methods for measuring the subjective perception of the physical environment by organization employees is extremely scarce, which prompted the development of our own original methods. The *Organizational Cynicism* scale was adapted, and two authors' methods were developed: 1. *Workplace Qualities Checklist* (*WQC*); 2. *People in the Office Scale* (*POS*).

Study 1: Adaption of the *Organizational Cynicism* scale

A complete psychometric preparation of the *Organizational Cynicism* scale was carried out for the first time in Russia, to study a conditionally dependent variable (Brandes, Dharwadkar, Dean, 1999).

The *study design* was correlational, and data was collected online (1ka.si) in 2020-2021. It was critical to conduct data collection unofficially, without organizational debriefing, to obtain sincere responses.

Sample. N=424. 296 women (69,8%), 128 men (30,2%). Age 19 - 84 years ($M_{age} =$ 40 years). Average work experience $M_{age} = 16,7$ years; mainly Russians (N = 385; 90%), representatives of different professions.

Methods. The primary method was the *Organizational Cynicism* scale - 13 statements with three subscales of cynicism: *Cognitive Aspect* (5), *Emotional Aspect* (3) and *Behavioral Aspect* (5), and an auxiliary one - the *Office Attachment* scale, modified from the *Place Attachment* scale (Bonaiuto et al., 2006), which contains 5 statements. For data analysis, exploratory and confirmatory factor analysis were completed, and also reliability testing and correlation analysis using SPSS 19.0 and AMOS 20 programs.

The results confirmed the original three-factor structure of the *Organizational Cynicism* scale (Figure 1) and showed its reliability (α for *Cognitive* - 0.924, *Emotional* - 0.8, *Behavioral* - 0.8). Convergent validity was tested through the *Office Attachment* scale (α = 0.836). A negative relationship was found between organizational cynicism and attachment to the office (r = -0.366). It was also revealed that the *Organizational Cynicism* scale shows a negative age trend without dependence on gender.
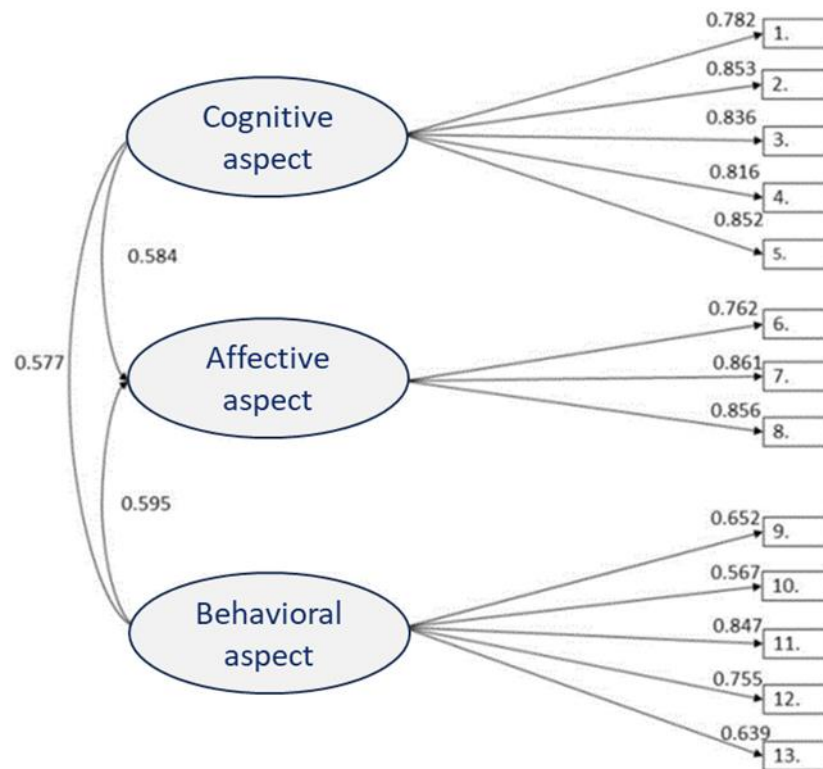
Figure 1. Factor structure of the *Organizational Cynicism* scale

The Russian-language adaptation of this scale is a valid and reliable instrument for use in various aspects of organizational psychology.

Study 2: creation of the *Workplace Qualities Checklist*

Two samples took part in the study. *Sample 1*. 47 architects (21–64 years old; M_{age} = 39.14; Me_{age} = 37; SD_{age} = 12.06; 23 women) from Russia (N = 42) and New Zealand (N = 5); help in the development of a pool of statements, as well as the definition of constructs' domains and discussion content validity. *Sample 2*. 9 experts, including architects and psychologists (23–59 years old; M_{age} = 45.89, Me_{age} = 50, ; SD_{age} = 12.62; 7 women); assessment of the credibility of the statements.

Methods. The methodology for developing the *Workplace Qualities Checklist* included an inductive-deductive approach, a combination of literature analysis and interviews with architects (Kvale, 2008). Expert reviews and the analysis of the statements' content validity (CVR), as well as the determination of the Content Validity Index (CVI) were used.

Procedure. The initial pool of statements was created using a deductive-inductive strategy (Kelly et al., 2013; Gönülateş, 2019). The literature review and interviews with architects (*Sample 1*) identified 56 statements about the key characteristics of a productive office environment. These statements, were rated by experts (*Sample 2*) on a 5-score scale, were grouped into 9 modules: 1) City infrastructure and the office; 2) Individual work (lighting, temperature control, storage systems, workplace personalization); 3) Team work; 4) Requirements for office space (availability of necessary amenities); 5) Restoration (self-care, opportunities to drink tea, coffee, exercise, sleep, etc.); 6) Communication; 7) Self-presentation (the office's ability to reflect the employee's status and achievements); 8) Personal development; 9) Attachment to the office (emotional connection of employees with the workspace and the team).

The content validity of the checklist items was confirmed by experts through the Content Validity Ratio (CVR). Some items that did not reach the CVR threshold were included in the final checklist due to their importance to professional identity and the specificity of shift work (Bauer, 2020). The overall validity coefficient of the instrument (CVI) reached 0.91, indicating a high level of expert agreement. The checklist, used as a single-factor questionnaire with dichotomous responses, is simple to use and interpret data, but its use does not allow for in-depth statistical analysis.

Study 3: Creation of the *People in the Office Scale*

On the basis of the statements of the checklist, a new psychometric scale was created that is suitable for building predictive models.

Study design. The third, fourth and fifth modules of the study were carried out using the correlation method, data was collected online in 2021 through the 1ka.si service.

Sample 3. 319 respondents (19-72 years old; $M_{age} = 40,86$, $Me_{age} = 39$, $SD_{age} = 12,70$; 220 women); citizens of Russia (87%), Israel (6%) and New Zeland (2%); with work experience in different sectors and different positions. The common amount of work experience varied from 6 months to 47 years ($M_{age} = 17,14$, $Me_{age} = 15$, $SD_{age} = 12,75$). The average time spent in the office per week was 39.27 hours ($SD_{age} = 13,35$). Inclusion criteria: age over 18 years, working in an office, and tenure of more than 6 months.

Methods. The research instrument was the *People in the Office* scale: a multifactor psychological questionnaire for practical and scientific use.

Mathematical and statistical data processing included the use of coefficients α Cronbach's and ω McDonald's, exploratory graphical analysis (EGA), the Walktrap algorithm, confirmatory factor analysis (CFA) and multigroup confirmatory factor analysis (MGCFA). The tools for analysis used were the following: psych, lavaan, semTools, EGAnet and ccpsyc packages in R software version 4.2.2, as well as Excel and IBM SPSS Statistics 22.

Analytical strategy: After testing the initial statements, psychometrically strong items were selected. The structure of the scale was confirmed by EGA and the Walktrap algorithm on a sample of N=127 (40% of the total). The factor structure of the scale was confirmed by CFA, and the standard quality metrics of the model (CFI, TLI, RMSEA, PCLOSE and SRMR) confirmed its adequacy. Multigroup CFA revealed stability of scale structure across gender and age. Internal reliability was assessed by coefficients ω MacDonald's and α Cronbach's greater than 0.70.

Statement Analysis: After excluding incomplete data, 309 observations remained. The distributions of most items were acceptable, with the highest (R31 - *Office space allows you to drink tea, coffee*) and lowest average values for certain items (R34 - *Office space allows you to take a shower, wash your hair, if necessary*).

Scale evaluation: Exploratory graphical analysis (EGA) on a sample of 127 participants for a factor analysis study (EFA) showed that the 5-factor model was more stable (recurring in 36.0% of cases) compared to the 6-factor model (28.0% of cases). The main difference between the models relates to the ability to listen to music, read, and watch movies in the office, which forms a separate community. The final choice is a 5-factor model of the questionnaire, explaining 59% of the dispersion. It consists of 27 items and showed satisfactory results (Figure 2). Each factor consists of homogeneous statements.
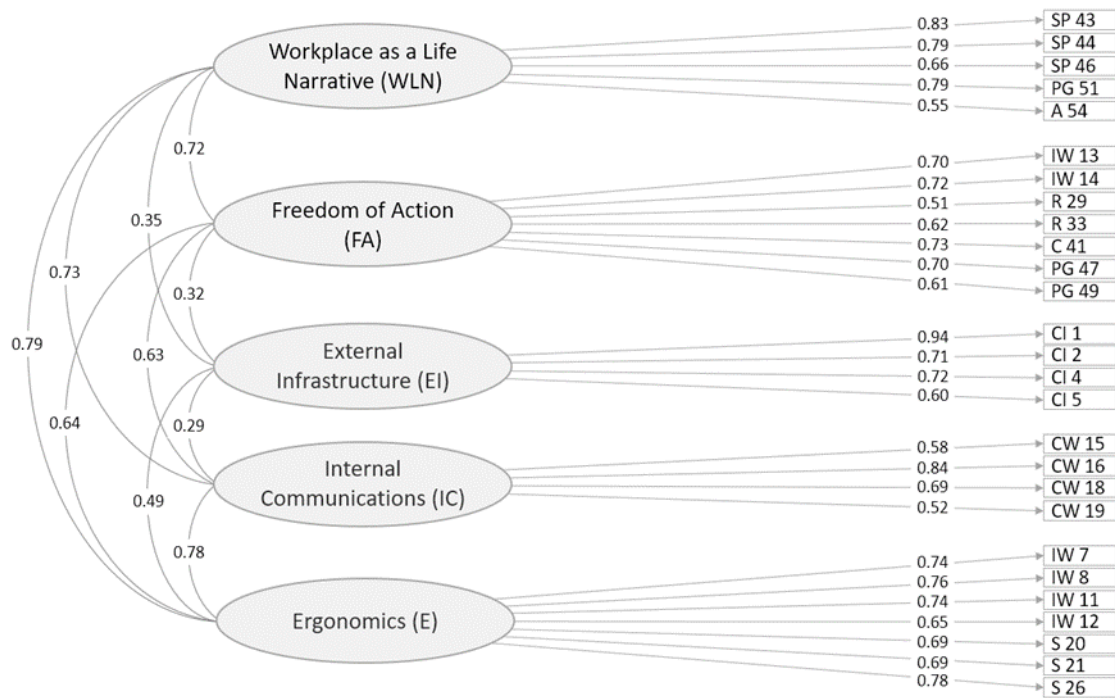
Figure 2. Factor structure of the *People in the Office Scale*

Factor 1 (7 items) *Ergonomics* describes comfort and safety in the office; Factor 2 (4 items) *Internal Communications* describes conditions for interaction between employees; Factor 3 (4 items) *External Infrastructure* relates to the arrangement of the area around the office; Factor 4 (7 items) *Freedom of Action* deals with adapting the office environment to needs; Factor 5 (5 items) *Workplace as a Life Narrative* relates to the office as part of one's professional development.

Measurement invariance across gender and age. Among the respondents, 69.28% are women, and Generation X (41-60 years old) prevails over Generation Y (22-40 years old). Men, on average, rate *Workplace as a Life Narrative, Freedom of Action* and *Ergonomics* higher. No significant differences were found between the age groups in the assessment of the office environment.

The study confirmed the reliability of the studied parameters (Cronbach and Macdonald: 0.70-0.89). The assessment tool developed for office environment performance is effective and accurate for practical and scientific applications. It provides organizations with a methodology for optimizing the workspace, facilitating in the creation of conditions (affordances) for employee self-actualization, and increasing their psychological well-being and job satisfaction.

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Study 4: Preliminary study of the correlation between the qualities of a "healthy" office and the psychological well-being of employees

The study examines aspects of the office environment that are important to employees' psychological well-being.

Sample 3. The same pool of respondents, as in Study 3.

Methods. The analysis used the *Workplace Qualities Checklist* for conditionally independent variables and standardized scales (*WEWBMS, Organizational Cynicism, Love and Affection* by Z. Rubin and *Family Dynamics* by V. Satir) to measure well-being as conditionally dependent variables.

Procedure. The study compared the perception of the office environment among employees of different levels of well-being, analyzing their attitudes towards aspects of office life through 9 sections of a checklist. Respondents were divided into 4 groups according to their level of well-being, with an emphasis on the highest (4th quartile) and the lowest (1st quartile) of 80 people in each group. Overall employee well-being was assessed by summing up indicators of *Family Dynamics*, *Love and Affection, Organizational Cynicism* and personal well-being as measured by the *Warwick Edinburgh Scale* (*WEWBMS*).

Table 1. Comparison of mean values of perceived office qualities in groups of employees with high and low psychological well-being

Blocks	Low Well-being N=80 Q1				High Well-being N=80 Q4			
	M	SD	Skewness	Kurtosis	M	SD	Skewness	Kurtosis
Urban Infrastructure and Office *	32,4	13,5	-0,15	-0,81	37,8	14,03	-0,40	-0,36
Individual Work ***	27,29	6,78	0,15	0,27	31,59	6,28	-0,35	0,28
Team Work ***	15,7	4,37	0,37	-0,30	18,1	4,57	0,53	0,46
Office Space Requirements ***	26,5	6,95	-0,12	-0,29	31,01	7,14	-,004	-0,10
Recovery **	36,76	8,65	-0,37	0,12	41,25	8,46	0,10	-0,37

	M	SD	Skewness	Kurtosis	M	SD	Skewness	Kurtosis
Communication ***	7,93	3,03	-0,05	0,03	9,99	3,31	-0,39	-0,10
Self-Presentation ***	10,75	3,96	-0,20	-0,54	13,55	4,44	-0,19	-0,52
Personal Development **	14,19	4,67	0,20	0,37	16,72	4,91	-0,24	-0,60
Office Attachment ***	12,63	4,72	0,28	0,21	15,66	4,96	0,11	-0,42

Note. M — mean; SD — standard distortion; Skewness — asymmetry index; Kurtosis — index,
* — p<0,05, ** — p<0,01, *** — p<0,001.

The analysis of the results showed the dependence of office perception on the level of employees' psychological well-being (low or high). The application of a t-test revealed significant differences in the perception of Individual and Teamwork, Office space requirements, Communication, Self-presentation and Attachment to the office. Smaller differences were observed in the Urban Infrastructure and Office, Recovery and Personal Development aspects. These findings, being statistically supported (p-value), are important for redesigning office spaces and improving employee well-being.

To obtain more substantiated, reliable and nuanced results, we carried out the following study.

Study 5: Prediction of well-being indicators considering the qualities of a "healthy" office

Based on the data obtained and the standardized methods prepared, we conducted a study of the contribution of the qualities of a "healthy" office to our chosen indicators of psychological well-being. The analysis included additional variables: size of the city of residence, length of service, gender, accessibility to the office by transport, time spent in the office, as well as the restorative qualities of the office: *Being Away, Compatibility, Fascination*, emphasizing the role of the restorative potential of the office in creating a "healthy" office.

Sample 3. The same pool of respondents as in Study 3.

Methods. To measure conditionally independent variables, we used the *People in the Office Scale*, assessing the following aspects of the office environment: *External Infrastructure* (4), *Ergonomics* (7), *Freedom of Action* (7), *Internal Communication* (4) and *Workplace as a Life Narrative* (5); for all subscales α from 0.742 to 0.876.

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Conditionally dependent variables (well-being indicators) were measured by standardized scales: the *Warwick-Edinburgh Psychological Well-Being Scale* (WEMWBS) (Tennant et al., 2007; Russian version: Robinson et al., 2013), consisting of 14 items (α=0.895), covering a wide range of aspects of positive mental health; the *Organizational Cynicism* scale (subscales *Cognitive* (4), *Emotional* (4) and *Behavioral* (5) components and α from 0.810 to 0.897); T. Hartig's *Restorative Potential of the Environment* scale (Hartig et al., 2008), with 3 subscales: *Being Away* (5), *Fascination* (5), *Compatibility* (5) and α from 0.826 – 0.942); scale of *Love and Affection* (Rubin, 1970; Gozman,* Aleshina, 1985), with 2 subscales: *Love* (7) and *Affection* (7) and 14 statements, where the total α = 0.916; and 3 questions to assess *Family Dynamics* (Satir, 1992), where α=0.857.

To analyze the data, correlation and regression analysis, structural modeling (including multigroup) and mediation analysis were used. The relationships between the qualities of a "healthy" office and the indicators of employees' well-being can be found in Table 2.

Just as expected, correlation analysis (Pearson's r) revealed a weak but significant, positive relationship between all the qualities of a "healthy" office (*Ergonomics, External Infrastructure, Internal Communication, Freedom of Action,* and *Workplace as a Life Narrative*) and the subjective well-being of employees, as well as the family atmosphere and a negative relationship between office quality and organizational cynicism (Table 2). The additional variable "size of the town in which the employee lives" does not have a significant impact on the assessment of the quality of the office environment.

The presence of significant, easily interpretable relationships between variables allows us therefore to move on to the next step in the building of an empirical model, namely, that of clarifying the contribution of specific qualities of a "healthy" office to the experience of various aspects of psychological well-being. To complete this task, we used structural equation modeling.

Table 2. Correlation of the main variables of the research

		Age	SCR	TSO	OTA	Exp	EI	E	IC	FA	WLN	FD	Love	Aff	WEM WBS	CCOC	ECOC	BCOC	BA	F	C
SCR	r	0,320***	1	0,111	0,115*	0,266***	-0,073	-0,071	-0,018	-0,067	-0,025	-0,001	0,101	-0,030	0,080	-0,035	0,004	-0,017	0,014	0,056	0,056
TSO	r	0,040	0,111	1	-0,060	0,028	-0,057	0,048	0,049	-0,126*	-0,015	-0,012	-0,078	-0,048	-0,033	0,017	0,022	0,018	-0,038	0,033	0,031
OTA	r	0,114*	0,115*	-0,060	1	0,154**	0,288***	0,180***	0,009	0,152*	0,198***	0,009	0,028	-0,032	0,108	-0,074	-0,057	-0,034	0,060	0,095	0,166**
Exp	r	0,912***	0,266***	0,028	0,154**	1	0,006	0,142*	0,078	0,019	0,137*	0,004	0,003	-0,151*	0,121*	-0,028	-0,094	-0,237***	0,115*	0,043	0,113*
EI	r	-0,022	-0,073	-0,057	0,288***	0,006	1	0,395***	0,249***	0,261***	0,267***	0,158*	0,129*	0,138*	0,151*	-0,055	-0,100	-0,075	0,124*	0,274***	0,293***
E	r	0,064	-0,071	0,048	0,180***	0,142*	0,395***	1	0,614***	0,561***	0,678***	0,102	0,032	0,082	0,204***	-0,367***	-0,355***	-0,261***	0,362***	0,458***	0,511***
IC	r	0,048	-0,018	0,049	0,009	0,078	0,249***	0,614***	1	0,486***	0,549***	0,097	0,082	0,133*	0,158*	-0,296***	-0,206***	-0,109	0,293***	0,360***	0,356***
FA	r	-0,004	-0,067	-0,126*	0,152*	0,019	0,261***	0,561***	0,486***	1	0,673***	0,058	-0,015	0,051	0,157*	-0,263***	-0,267***	-0,104	0,373***	0,396***	0,528***
WLN	r	0,093	-0,025	-0,015	0,198***	0,137*	0,267***	0,678***	0,549***	0,673***	1	0,057	0,027	0,066	0,215***	-0,366***	-0,436***	-0,270***	0,459***	0,586***	0,650***
FD	r	-0,021	-0,001	-0,012	0,009	0,004	0,158*	0,102	0,097	0,058	0,057	1	0,490***	0,463***	0,363***	-0,174*	-0,160*	-0,001	-0,119*	0,121*	0,022
Love	r	-0,055	0,101	-0,078	0,028	0,003	0,129*	0,032	0,082	-0,015	0,027	0,490***	1	0,792***	0,208***	-0,149*	-0,099	-0,059	-0,069	0,126*	0,047
Aff	r	-0,215***	-0,030	-0,048	-0,032	-0,151*	0,138*	0,082	0,133*	0,051	0,066	0,463***	0,792***	1	0,163*	-0,162*	-0,083	-0,053	-0,053	0,100	0,053
Love+Aff	r	-0,132*	0,045	-0,068	0,002	-0,068	0,141*	0,057	0,110	0,015	0,046	0,504***	0,959***	0,933***	0,198***	-0,164*	-0,097	-0,059	-0,065	0,121*	0,053
WEM WBS	r	0,109	0,080	-0,033	0,108	0,121*	0,151*	0,204***	0,158*	0,157*	0,215***	0,363***	0,208***	0,163*	1	-0,264***	-0,369***	-0,171*	0,136*	0,368***	0,341***
CCOC	r	0,000	-0,035	0,017	-0,074	-0,028	-0,055	-0,367***	-0,296***	-0,263***	-0,366***	-0,174*	-0,149*	-0,162*	-0,264***	1	0,682***	0,518***	-0,210***	-0,345***	-0,377***

ECOC	r	-0,062	0,004	0,022	-0,057	-0,094	-0,100	-0,355***	-0,206***	-0,267***	-0,436***	-0,160*	-0,099	-0,083	-0,369***	0,682***	1	0,602***	-0,247***	-0,378***	-0,478***
BCOC	r	-0,194***	-0,017	0,018	-0,034	-0,237***	-0,075	-0,261***	-0,109	-0,104	-0,270***	-0,001	-0,059	-0,053	0,171*	0,518***	0,602***	1	-0,219***	-0,218***	-0,267***
BA	r	0,123*	0,014	-0,038	0,060	0,115*	0,124*	0,362***	0,293***	0,373***	0,459***	-0,119*	-0,069	-0,053	0,136*	-0,210***	-0,247***	-0,219***	1	0,556***	0,546***
F	r	0,028	0,056	0,033	0,095	0,043	0,274***	0,458***	0,360***	0,396***	0,586***	0,121*	0,126*	0,100	0,368***	-0,345***	-0,378***	-0,218***	0,556***	1	0,787***
C	r	0,080	0,056	0,031	0,166**	0,113*	0,293***	0,511***	0,356***	0,528***	0,650***	0,022	0,047	0,053	0,341***	-0,377***	-0,478***	-0,267***	0,546***	0,787***	1
N		310	293	309	309	311	310	311	311	311	311	308	277	277	310	311	311	311	311	311	311

Notes: SCR — Size of the City of Residence; TSO — Time Spent in the Office (hours per week), Exp - Total Work Experience; OTA — Office Transport Accessibility; EI - *External Infrastructure*; E - *Ergonomic*; IC - *Internal Communications*; FA - *Freedom of Action*, WLN - *Workplace as a Life Narrative*, FD – *Family Dynamics*; Love – *Love*; Aff – *Affection*; CCOC — *Cognitive component* of Organizational Cynicism; ECOC — *Emotional component* of Organizational Cynicism; BCOC — *Behavioral component* of Organizational Cynicism; BA — *Being Away*; F — *Fascination*; C — *Compatibility*.
* — p<0,05, ** — p<0,01, *** — p<0,001.

We begin with the analysis of all possible predictors of personal well-being (a well-adjusted model has been obtained): χ2=34,158, df=25, p=0,105, CFI=0.990, RMSEA=0,035, 95% DI [0,280-0,374], PCLOSE=0,806, SRMR=0,053.

This empirical model presents a block of independent variables: *External Infrastructure, Freedom of Action* and *Workplace as a Life Narrative*, a block of mediators: *Being Away, Fascination* and *Compatibility*, as well as a block of additional objective variables: Office transport accessibility, time spent in the office and length of work experience. 14 relationships with significant factor loadings are shown (Figure 3).

Contrary to our expectations, it turned out that office characteristics do not directly contribute to psychological well-being. However, two of the five qualities: *External Infrastructure* and *Workplace as a Life Narrative*, did in an indirect way, through additional variables of the restorative potential of the workplace, still determine personal psychological well-being, and the resulting relationships are quite significant. Also, the different qualities of a friendly environment, when interacting with each other, can paradoxically even lead to a decrease in employees' psychological well-being.

Compatibility shows a strong relationship with well-being, which underlines one of the fundamental ideas of our study about the importance of the sense of coherence and corresponds to the individual and the spatial conditions of his life. For example, *Workplace as a Life Narrative* and *Freedom of Action* in the office are positively related to *Being Away* as an opportunity to step away from everyday work tasks and responsibilities. But at the same time, *Being Away* itself makes a direct, and negative contribution to psychological well-being, probably because in the mentality of a regular worker, the office is still needed for work, and if distracted, the quality of the work suffers and the time it takes to complete it increases. At the same time, *Fascination* and *Compatibility* have the most significant positive effects on well-being by ensuring that the office is visually pleasing and that the work environment matches employees' personal needs and work style.
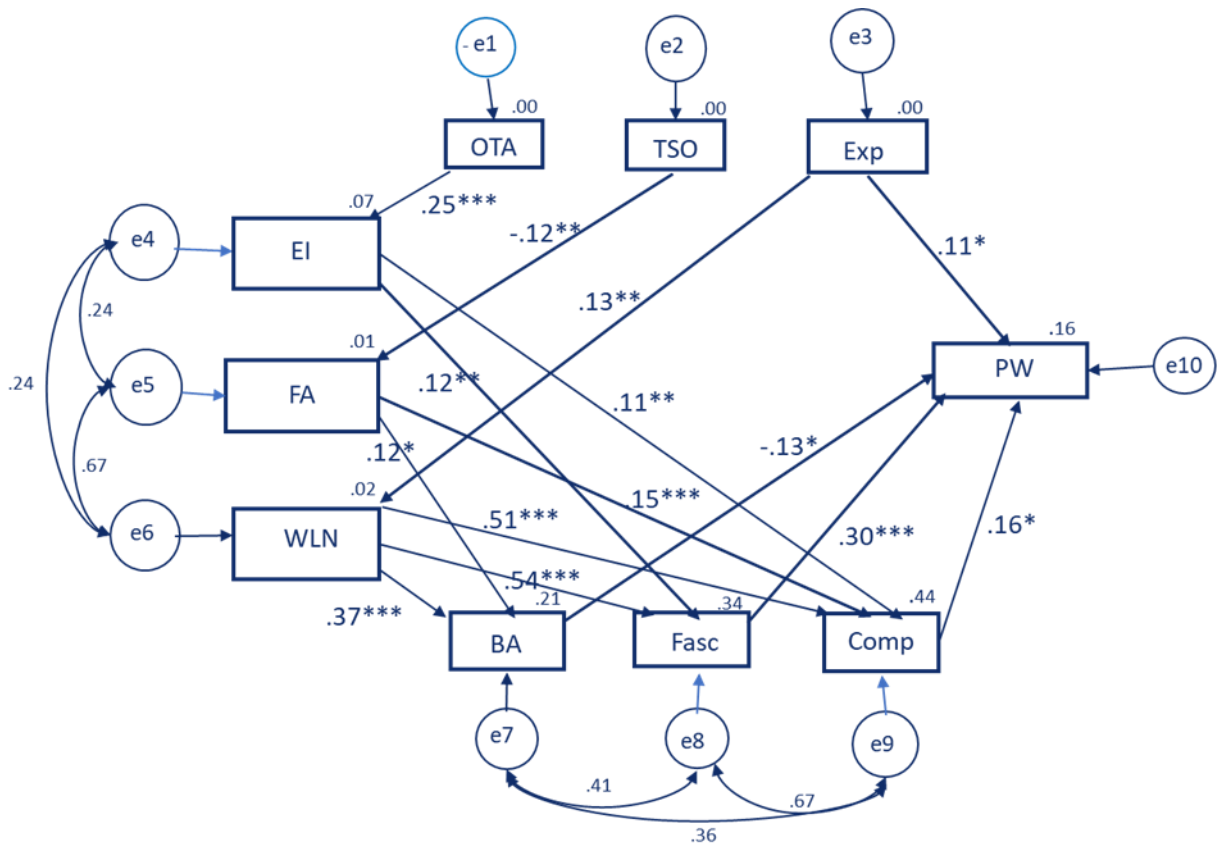
Figure 3. Structural model of the relationships between the parameters of the office environment, its restorative potential and psychological well-being

*Notes: Only those variables that have significant factor loadings are shown. OTA – Office Transport Accessibility, TSO — Time Spent in the Office; Exp - Total Work Experience; EI - External Infrastructure; FA - Freedom of Action, WLN - Workplace as a Life Narrative, BA — Being Away, F — Fascination, C — Compatibility, PW - Psychological Well-being. * — p<0,05, ** — p<0,01, *** — p<0,001.*

It is noteworthy that the greatest number of positive, albeit indirect, relationships were determined by the characteristic *Workplace as a Life Narrative*. It is exactly this quality that contributes to the fact that possibilities for *Being Away* are revealed - whether the work environment suits the employee (*Compatibility*). At the same time, the next part of the path already has some internal inconsistency, and relationships can 'extinguish' each other: if *Fascination* and *Compatibility* are clearly positive for well-being, then *Being Away* is negatively related to it.

The office quality *Freedom of Action* is significantly related to *Compatibility* and *Being Away*, highlighting the critical role of aligning employees' personal needs with their

work environment. The quality of *External Infrastructure* is positively related to *Compatibility* and *Fascination*, thus confirming the role of resource availability and attractiveness of the location in employees' lives. Having a good infrastructure around the office can make employees feel more compatibility between their personal needs and their workspace.

External infrastructure and *Workplace as a Life Narrative* serve as first-level mediators, channeling the effects of the office's transport accessibility and length of service on psychological well-being. *Being Away, Fascination*, and *Compatibility* act as second-level mediators with a direct impact on psychological well-being. Except for the variables Time Spent in the Office and *Freedom of Action*, all indirect effects on psychological well-being are significant. This indicates that *External Infrastructure*, *Workplace as a Life Narrative*, *Being Away*, *Fascination* and *Compatibility* are significant mediators in the relationships.

Finally, we turn to the role of the additional objective variables. Office Transport Accessibility is, not surprisingly, related to *External Infrastructure*, which, in turn, triggers the experience of *Compatibility*, strengthening well-being. Work experience has a direct positive effect on well-being, but in addition it is also associated with the *Workplace as a Life Narrative* variable. On the other hand, time spent in the office is negatively related to *Freedom of Action*, although as the analysis showed, their indirect effect on psychological well-being is insignificant. Thus, of the additional variables, transport accessibility to the office is indirectly related, while length of work experience is directly, positively related to well-being. In conclusion, we can state that Hypothesis H1 is partially confirmed.

Now we move on to clarify the contribution specific qualities of a "healthy" office make to family well-being. To implement this task, the following predictive model was built. $\chi2=48,300$, df=33, p=0,042, CFI=0.989, RMSEA=0,029, 95% DI [0,006-0,046], PCLOSE=0,980, SRMR=0,035.

This empirical model presents a block of independent variables: *Freedom of Action*, *External infrastructure* and *Ergonomics*, and a block of mediators: Time Spent in the

office (TSO), *Being Away, Fascination*, as well as an additional objective variable: time spent in the office. 18 relationships with significant factor loadings are shown (Figure 4).
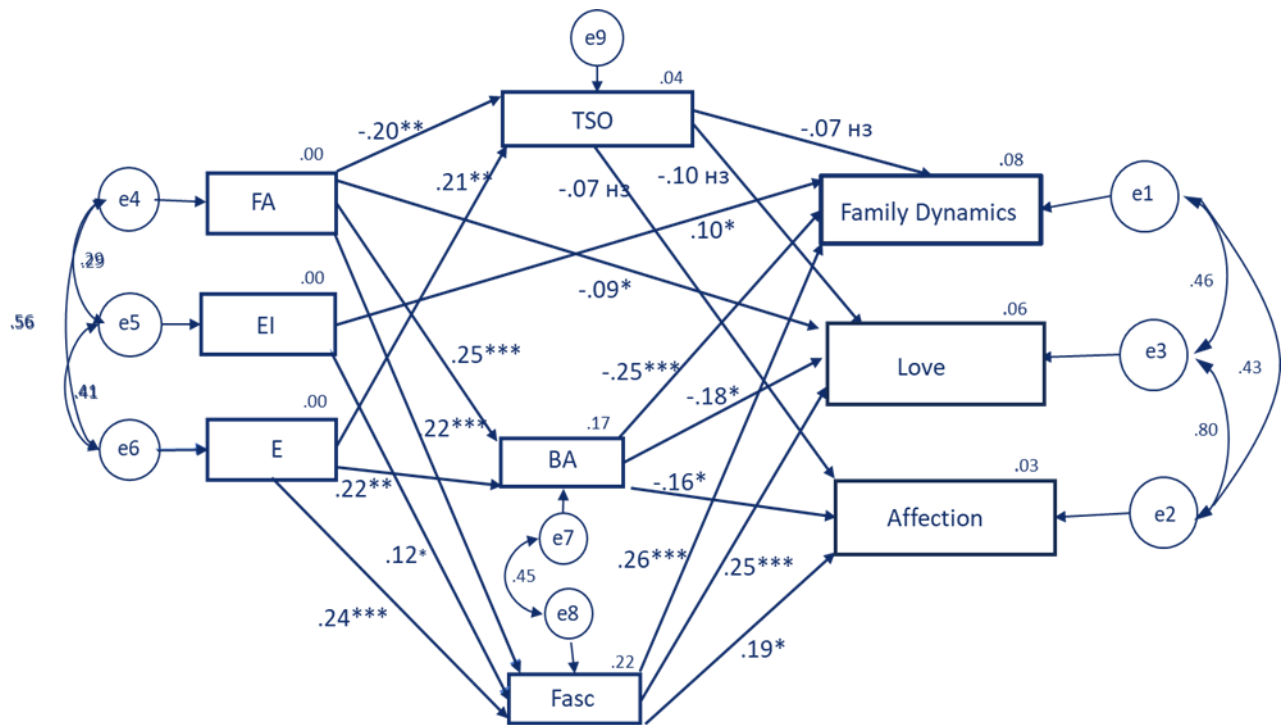

Figure 4. Structural Model of the Relationships between Office Characteristics, Family Dynamics, and Interactions

Notes: Only those variables that have significant factor loadings are shown. TSO — Time Spent in the Office; EI - *External Infrastructure*; FA - *Freedom of Action*, E – *Ergonomics*, BA — *Being Away*; Fasc — *Fascination*.

Significant relationships are formed by three characteristics, namely *Freedom of Action*, *External Infrastructure* and *Ergonomics*. Unlike the previous model, here there is a direct contribution to indicators of family well-being, although the relationships are not very strong. Thus, *Freedom of Action* in the work environment is negatively related to the experience of *Love* in the family, and *External Infrastructure* is positively related to *Family Dynamics*: an employee with high subjectivity experiences more positive feelings, and a convenient office location helps to reduce commuting fatigue to and from work/home. This, possibly, allows for managing household duties without compromising work, such as picking up their child from kindergarten or taking them to a music school. This arrangement makes daily life more comfortable, reducing additional stress.

At the same time, these qualities of a "healthy" office, along with *Ergonomics*, have indirect effects on family well-being, and in different directions. Thus, all three qualities (*Freedom of Action, External Infrastructure* and *Ergonomics*) are positively related to perceived office *Fascination*, which, in turn, makes a positive contribution to all three dimensions of family well-being, and these relationships are quite strong. At the same time, *Freedom of Action* and *Ergonomics* are positively associated with *Being Away*, which, as in the previous model, is negatively associated with well-being. The strength of relationships is somewhat less remarkable here.

The study revealed that time spent in the office and *Being Away* are not mediators of these relationships, partially refuting hypothesis 2. Only *Fascination* is a mediator of the relationships existing between *External Infrastructure* and *Love, Affection, Family Dynamics*.

Finally, the objective variable - time spent in the office also appeared in the model. It shows direct negative relationships to all the indicators of family well-being, but all of them are insignificant.

In conclusion, we can say that the resulting model turned out to be more complex and nuanced than we expected. The use of structural analysis made it possible to understand why correlation analysis showed virtually no relationships between office qualities and family well-being: these relationships turned out to be nonlinear, often "cancelling" each other out. It should be stated that the results require careful interpretation and further research, and hypothesis H2 cannot be confirmed.

We now turn to assessing the moderating effect of gender on the relationship between qualities of the office environment, time spent at work, and the family dynamics. To complete this task, the following predictive model was built.

This empirical model presents: a section of independent variables: *Ergonomics, Freedom of Action* and *External Infrastructure*, a section of restorative potential parameters: *Being Away, Fascination*, as well as an additional objective variable: duration of stay in the office. 18 relationships with significant factor loadings have been found (Table 3).

Table 3. Moderation by Gender of the Relationships between Office Environment Qualities, Time Spent in the Office, and Family Dynamics (N=270)

Dependent Variable		Predictor	Men		Women		z
			B	p	B	p	
TSO	←	E	1,831	0,373	3,324	0,006	0,628
TSO	←	FA	-1,150	0,500	-3,400	0,002	-1,111
Being Away	←	FA	0,453	0,021	0,471	0,003	0,069
Being Away	←	E	0,536	0,023	0,443	0,011	-0,316
Fascination	←	FA	0,620	0,004	0,410	0,028	-0,730
Fascination	←	EI	0,147	0,457	0,324	0,015	0,738
Fascination	←	E	0,430	0,113	0,655	0,002	0,651
Affection	←	TSO	0,005	0,232	-0,009	0,010	-2,583***
Love	←	TSO	-0,005	0,334	-0,010	0,022	-0,736
Family Dynamics	←	EI	0,178	0,015	0,044	0,365	-1,532
Family Dynamics	←	Being Away	-0,088	0,111	-0,122	0,000	-0,521
Family Dynamics	←	Fascination	0,058	0,233	0,109	0,000	0,883
Love	←	FA	0,009	0,833	-0,116	0,000	-2,214**
Affection	←	Being Away	-0,021	0,572	-0,047	0,082	-0,573
Love	←	Being Away	-0,066	0,148	-0,061	0,056	0,086
Affection	←	Fascination	0,056	0,085	0,041	0,070	-0,389
Love	←	Fascination	0,091	0,025	0,076	0,006	-0,308
Family Dynamics	←	TSO	-0,004	0,551	-0,004	0,438	0,003
Number of Significant Predictors			5 (+1 at trend level)		13 (+3 at trend level)		

Notes: *p<0.05, **p<0.01, ***p<0.001

Multigroup analysis was utilized to explore if the relationship between the friendliness of the office environment, the amount of time spent at work, and the family climate is moderated by gender. Separate analysis of male (n=87) and female (n=182) groups revealed significant differences in the relationships between office qualities and family climate: for women, there were 13 statistically significant regression paths and 5 for men. Significant differences were observed in the impact on *Family Dynamics* parameters by gender across three predictors. For women, the duration of office presence is significantly negatively associated with the Affection parameter (p=0.010), the opportunity for *Being Away* is linked to a deterioration in the *Family Dynamics* (p = 0.000), and *Freedom of Action* in the office makes a negative contribution to the *Love*

parameter (p = 0.000). For men, such relationships did not show statistical significance (p=0.232; p=0.111 and p=0.833, respectively). This may indicate that the more freedom and excitement women experience at work, the weaker their emotional connection with family, whereas for men, a similar effect is not observed.

It was also found that among women, *Ergonomics* of the workplace (p = 0.002) and *External Office Infrastructure* (p = 0.010) make a positive contribution to the *Fascination* of the office; for men, such relationships are not significant (p = 0.113) and (p = 0.457). Women are likely to give a higher rating to the convenience of their workplace and office location, for example its proximity to home and kindergarten, which makes life more comfortable and reduces additional stress. In the context of the family atmosphere, the significance of *External Infrastructure* (p = 0.015) is noted only for men, in contrast to women (p = 0.365), emphasizing that access to transport and the presence of nearby amenities contribute to a better balance between work and family life.

The structural model was significantly different in the groups of men and women (difference: $\chi2=30.7$, df=14, p<0.006): 13 statistically significant relationships were identified in the women's group compared to 5 in men, which indicates a more complex interaction of office environment factors with family atmosphere for women. This confirms that gender significantly influences these relationships and that these differences should be taken into account when developing corporate policies and designing office space. Hypothesis **H2b** has been proved.

Finally, we move on to analyzing the relationship between office qualities and social well-being, the indicator of which was the absence of organizational cynicism. The constructed model ($\chi2=27.87$, df=20, p=0.110, CFI=0.992, RMSEA=0.037, 95% CI [0.000-0.067], PCLOSE=0.726, SRMR=0.061) shows both the presence of a direct contribution and the presence of mediators.

This empirical model includes the following: a block of independent variables: *Ergonomics, Internal Communication* and *Workplace as a Life Narrative*, a block of mediators: work experience*, Compatibility, Being Away*, as well as an additional objective variable: work experience. 9 relationships with significant factor loadings are shown in figure 5.
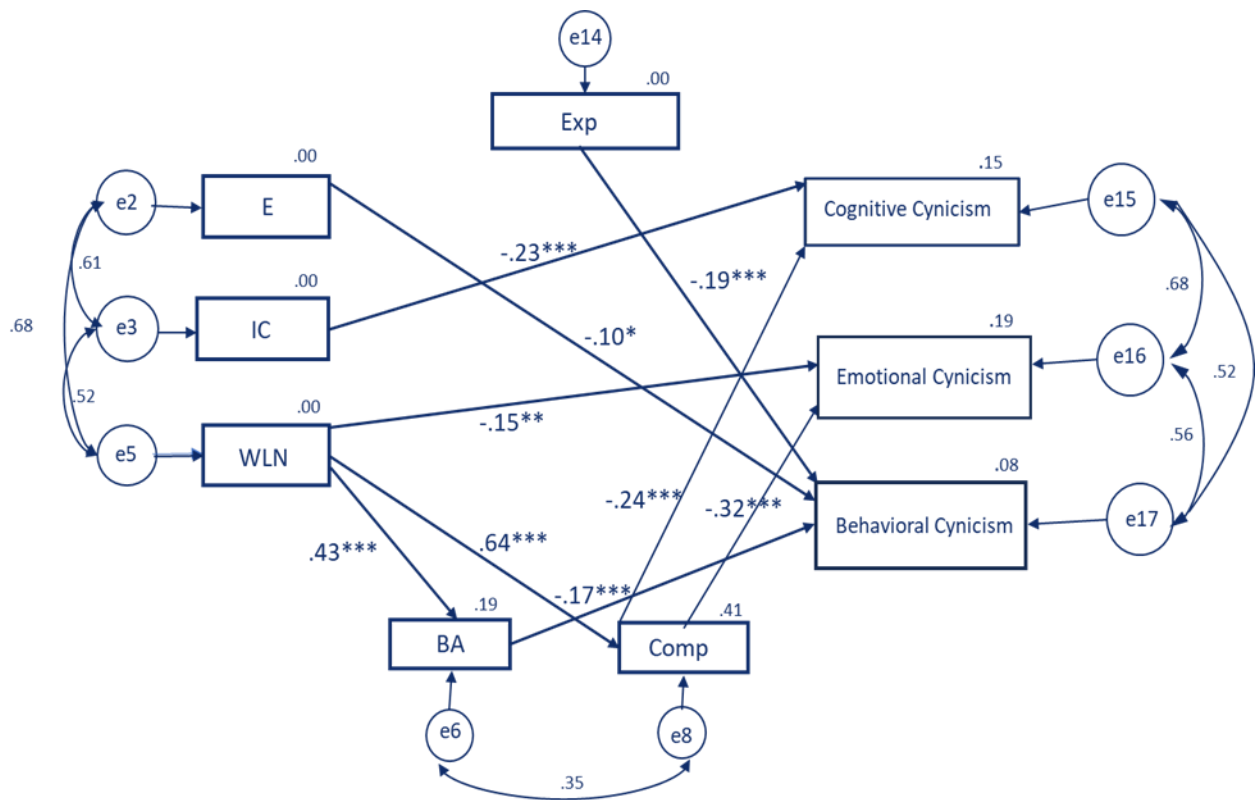
Figure 5. Structural Model of Relationships between Office Characteristics and Organizational Cynicism

Notes: Only those variables that have significant factor loadings are shown. IC - *Internal Communications;* E - *Ergonomics,* WLN - *Workplace as a Life Narrative;* BA – *Being Away;* Comp – *Compatibility*.

Significant relationships are formed by three characteristics, namely, *Ergonomics, Internal Communications* and *Workplace as a Life Narrative*. Moreover, a direct contribution to the indicators of organizational cynicism is present, although these relationships are not very strong. Thus, *Ergonomics* is negatively related to the *Behavioral* aspect of organizational cynicism, *Internal Communications* to *Cognitive*, and *Workplace as a Life Narrative* to the *Emotional* aspect of cynicism. At the same time, *Workplace as a Life Narrative* has indirect effects on the indicators of cynicism, i.e. it is positively associated with perceived *Compatibility* and office *Being Away*, which in turn contribute negatively to *Cognitive*, *Emotional* and *Behavioral* Cynicism, respectively. The strength of the relationships here is slightly higher. It is likely that the *Compatibility* of the workplace with the personal needs of employees has the effect of decreasing both

Emotional and *Cognitive* cynicism, and *Being Away*, in turn, as a short-term break from problems or a reboot, contributes to the reduction of cynicism at a behavioral level.

Finally, we turn to the role of an additional objective variable - work experience, which is directly related to a decrease in *Behavioral Cynicism*. It is quite understandable that as individuals gain work experience, they become more tolerant of the decisions of their organization and begin to value their workplace more.

In this way, hypothesis H3 (The more employee-friendly the office environment, the lower the employee's organizational cynicism) can be considered confirmed.

These findings provide insight into how the office environment is perceived by employees and how this influences their perception of the organization, highlighting the importance of considering them in future research to develop more effective strategies for office space design.

In conclusion, it is worth noting that the qualities of the office that most often and strongly manifested themselves in the models considered are *Workplace as a Life Narrative*, *Freedom of Action,* and *Ergonomics*. *External Infrastructure* and *Internal Communications* also play a significant role. It is especially important to emphasize that many of the qualities of a "healthy" office are activated through characteristics related to the restorative potential of the environment, such as *Fascination*, *Compatibility* and *Being Away*.

Discussion

The study confirmed that a friendly office environment is indeed related to various aspects of employee psychological well-being, but these connections turned out to be indirect and complex. The findings are consistent with salutogenic ideas about the importance of creating conditions to enhance health and well-being (Heerwagen et al., 1995; Antonovsky, 1996), the Vitamin Model of Job Satisfaction (Warr, 1994), and the Motivation-Hygiene Theory (Herzberg et al., 1959).

Many of the office environment qualities we identified contribute to maintaining employees' psychological well-being. However, these relationships are specific. Thus, office *Ergonomics* reduces organizational cynicism, but is also related to an increase in

time spent at work, which can indirectly worsen relationships with loved ones. That is why, those qualities of the office that are beneficial to the organization may not necessarily match employees' personal and family interests.

Internal Communications improve organizational well-being, while *Workplace as a Life Narrative* and *Ergonomics* increase personal well-being. The *External Infrastructure* of the office makes a special contribution to family relationships. Interestingly, the *Cognitive* and *Emotional* aspects of cynicism were found to be the most sensitive to environmental quality among all the well-being indicators studied.

The first hypothesis, H1, which assumes the existence of a positive contribution of "healthy" office environment in maintaining the psychological well-being of employees, was partially confirmed.

Contrary to assumptions, hypothesis H2a, which states that a "healthy" office environment is negatively related to family dynamics was not proved.

Hypothesis H2b was however confirmed. The relationship between the friendliness of the office environment, time spent at work, and the quality of the family dynamics is indeed affected by gender.

Hypothesis H3. The study confirmed that a friendly office environment inhibits organizational cynicism of employees.

In an environment where there is no universal standard for office space and each individual has their own unique preferences, our study found gender differences in the perception of the office environment. Women link their well-being more closely to workplace characteristics, a finding supported by other studies (Bae et al., 2020; Haselsteiner, 2021). These findings highlight the importance of a gender-sensitive approach to office design, which should take into account not only comfort, aesthetics and ergonomics, but also create conditions for personal and professional growth.

Conclusion

Our interdisciplinary research at the intersection of psychology and architecture proves that office space does actually contribute to the personal, family and social psychological well-being of workers, but its effects are often indirect and ambiguous.

Innovative predictive models based on adaptive employee behavior and positive psychology have been developed to identify key aspects of a "healthy" office that contribute to employees' well-being. These models describe how exactly different office qualities relate to workers' well-being, family atmosphere, and organizational loyalty, suggesting new approaches to project design. They can serve as a basis for coaches and psychologists to develop targeted recommendations for improving the office environment.

The adapted *Organizational Cynicism* scale seems to be in demand in applied psychology to strengthen the resilience of organizations and improve the work microclimate. New tools: the *Workplace Qualities Checklist* and the *People in the Office Scale* both offer practical methods for assessing subjective perceptions of the office environment. These tools enable architects to consider individual employee preferences and organizational characteristics in the design process, thereby creating conditions conducive to the health and well-being of the staff.

The theoretical, empirical and methodological results of our study can contribute to the creation of a productive, psychologically favorable and "healthy" office environment.

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