MENTAL RESILIENCE OF EMPLOYEES IN HAZARDOUS WORK CONDITIONS: PSYCHOEMOTIONAL CHALLENGES AND SUPPORT STRATEGIES

Vladyslav Koval[1], Svitlana Pidluzhna[2]

[1]Ph.D. (Pedagogical Science), Associate Professor, Associate Professor of the Department of Psychology, National University «Zaporizhzhia Polytechnic», Zaporizhzhia, Ukraine, e-mail: kovalvlad1975@gmail.com, ORCID: https://orcid.org/0000-0001-6012-9509

[2]Master's student, Department of Psychology, National University «Zaporizhzhia Polytechnic», Zaporizhzhia, Ukraine, e-mail: psv197206@gmail.com

Citation:
Koval, V., & Pidluzhna, S. (2025). Mental Resilience of Employees in Hazardous Work Conditions: Psychoemotional Challenges and Support Strategies. *Public Administration and Law Review*, (1(21), 122–135. https://doi.org/10.36690/2674-5216-2025-1-122-135

Received: March 11, 2025
Approved: March 29, 2025
Published: March 31, 2025

Abstract. *This study explores the psychoemotional challenges faced by employees engaged in hazardous work environments and identifies key psychological factors that influence their ability to maintain resilience under occupational stress. The primary aim is to examine how specific working conditions affect the mental resilience of workers in high-risk settings and to develop practical strategies for enhancing psychological support and stability. To achieve this objective, the study applies a mixed-methods approach that combines theoretical analysis, standardized psychological assessments, and statistical evaluation. Self-assessment instruments were used to gauge employees' levels of anxiety, frustration, aggression, and rigidity. Additionally, a coping strategy inventory was administered to examine how individuals react to stress in real-life work situations. The data were analyzed using descriptive and variance-based statistical techniques to reveal behavioral tendencies and emotional patterns across the sample. The findings demonstrate that most employees in hazardous work environments exhibit low to moderate levels of psychological strain, with task-oriented coping emerging as the predominant stress management strategy. This suggests that workers tend to adopt constructive behavioral responses when faced with high-intensity situations. Despite this general trend, the results also highlight the presence of moderate aggression and emotional variability in a subset of respondents, particularly among male participants. The data further indicate that while avoidance and emotion-focused coping strategies are present, they are less frequent and potentially maladaptive when compared to action-based approaches. The study concludes that psychological resilience in high-risk professions is not merely the absence of stress but an active process involving personal regulation, emotional discipline, and environmental support. The implementation of a comprehensive psychocorrectional program—featuring psychoeducation, cognitive-behavioral training, relaxation techniques, and group interaction modules—is proposed as a preventative and rehabilitative framework. This program is designed to enhance emotional stability, promote adaptive thinking, and sustain performance in high-stress environments. The results emphasize the need for organizations to proactively cultivate psychological safety, invest in resilience training, and integrate mental health strategies into routine occupational safety measures.*

Keywords: *mental resilience, working conditions, high-risk occupations, psychoemotional health, coping strategies, gas distribution enterprises.*

JEL Classification: I12; I15; I31

Formulas: 0; fig. 2; tabl. 5; bibl. 18

Introduction. Enterprises engaged in the safe and uninterrupted distribution of natural gas to consumers - including industrial facilities, the public sector, and private households - play a crucial role in ensuring the country's energy security and the stable functioning of its economy. Amid ongoing war conditions, their role in maintaining the vital activity of the population and critical infrastructure has become even more significant. Employees of such enterprises perform complex, high-intensity, and technically hazardous tasks often associated with risks of explosions, fires, gas leaks, and other emergencies.

In high-risk occupations, professionals are required not only to possess advanced technical expertise but also to demonstrate a high level of mental resilience. The ability to maintain emotional balance under conditions of constant pressure, responsibility, and danger is a determining factor in preserving not only the life and health of the employees themselves but also the safety of broader communities. In this context, mental resilience serves as a safeguard for the effective performance of professional duties, error prevention, and protection against occupational burnout.

Employees in the gas distribution sector are frequently exposed to stressful environments due to physical strain, irregular and night shifts, the necessity for sustained attention and rapid decision-making, and the dynamics of teamwork. These factors generate significant psychological and emotional pressure, which requires careful psychological investigation and the implementation of effective mental health support strategies.

This research becomes particularly relevant in wartime, where traditional occupational risks are compounded by new threats—such as physical danger from shelling, infrastructure damage, loss of colleagues, staff shortages, social instability, and the need for recovery work under extremely stressful conditions. All of these factors call for new approaches to safeguarding workers' mental health and building long-term psychological endurance.

Therefore, studying the impact of working conditions on the mental resilience of employees engaged in gas distribution is essential not only for maintaining individual well-being but also for ensuring the stable operation of the country's entire energy system. This research provides the foundation for developing strategic, evidence-based recommendations aimed at supporting workers' mental health, implementing preventive measures, and establishing a system of psychological safety in high-risk professional environments.

Literature review. The concept of safe working conditions traditionally refers to a production environment where hazardous or harmful factors are either eliminated or maintained within established regulatory limits. These factors may include physical dangers (such as moving machinery, high temperatures, or exposure to gas), chemical threats (toxic substances), biological hazards (pathogens), and psychophysiological stressors (overload, fatigue, and emotional strain). The foundation of occupational safety is built on systematic organizational practices—such as professional training, procedural instruction, and the integration of technical safety systems.

In recent years, scholarly attention has increasingly shifted toward the psychological aspects of workplace safety, especially within the fields of occupational

and organizational psychology. A growing body of research explores how exposure to high-risk environments influences employees' psychological resilience and emotional well-being. Researchers emphasize that mental resilience is a key determinant in an individual's capacity to remain functional under stress, adapt to rapidly changing conditions, and manage emotional exhaustion.

Within Ukrainian psychological discourse, several nuanced terms describe an individual's adaptive capacity in high-risk or extreme environments. While overlapping conceptually, these terms reflect different emphases: *mental resilience*(Sikach), *psychological resilience* (Arshinova & Shuvalova), *stress resistance* (Akhverdova & Boiev), *neuropsychic stability* (Dorohiv), and *professional-psychological resilience* (Vasylenko). Each of these constructs highlights a specific dimension of personal stability under psychological strain.

Maksymov (2016) defines psychological resilience as an integrative trait that enables a person to withstand frustration and traumatic experiences without compromising functional capacity. Other scholars, such as Hryhoryan, Makarenko, Lozhkin, Kryvoruchko, Lysenko, Karamushka, and Korolchuk, have examined resilience in the context of extreme work environments, focusing on physiological stress adaptation, emotional regulation, professional suitability, and organizational dynamics.

Despite these contributions, there remains a clear research gap concerning employees in the gas distribution sector—one of the most safety-critical and psychologically demanding professional domains. Workers in this field must continuously manage risks such as explosions, gas leaks, and life-threatening operational failures. These challenges are compounded by heightened responsibility for public safety, critical infrastructure, and, in wartime, persistent existential threats. This combination of factors contributes to sustained psychological strain and a high likelihood of burnout.

The literature suggests that the development and maintenance of resilience in high-risk professions are shaped by both internal and external variables. Internally, traits such as emotional stability, motivation, and cognitive flexibility serve as key protective factors. Externally, organizational support, social cohesion, and a psychologically safe work environment are vital to employee well-being. Burlakova and colleagues (2021, 2022, 2024) have highlighted the role of emotional intelligence, cognitive adaptability, and corporate well-being initiatives as mediators of resilience in dynamic work environments.

From a global policy perspective, the World Health Organization (2022, 2023) has asserted that mental health is a universal workplace right. Employers are obligated to establish environments that reduce psychological stress, facilitate adaptation to change, and actively support employee mental health. The WHO identifies ten core categories of psychosocial risks—such as monotony, high workload, shift work, lack of autonomy, and poor interpersonal relations—that significantly affect psychological well-being. These risks, if unmanaged, can lead to elevated anxiety, increased emotional exhaustion, reduced productivity, and higher rates of error.

Such concerns are particularly acute in high-risk occupational contexts. Workers

in hazardous professions are not only expected to perform under pressure but must also manage the cumulative psychological toll of their roles. It is therefore essential that occupational safety policies address not only physical threats but also the psychosocial dimensions of the working environment.

Within the study of mental resilience among employees performing high-risk tasks, it is crucial to consider the complex characteristics of the professional environment. According to the WHO Guidelines on mental health in the workplace, the following ten categories of risks are directly relevant (Figure 1).

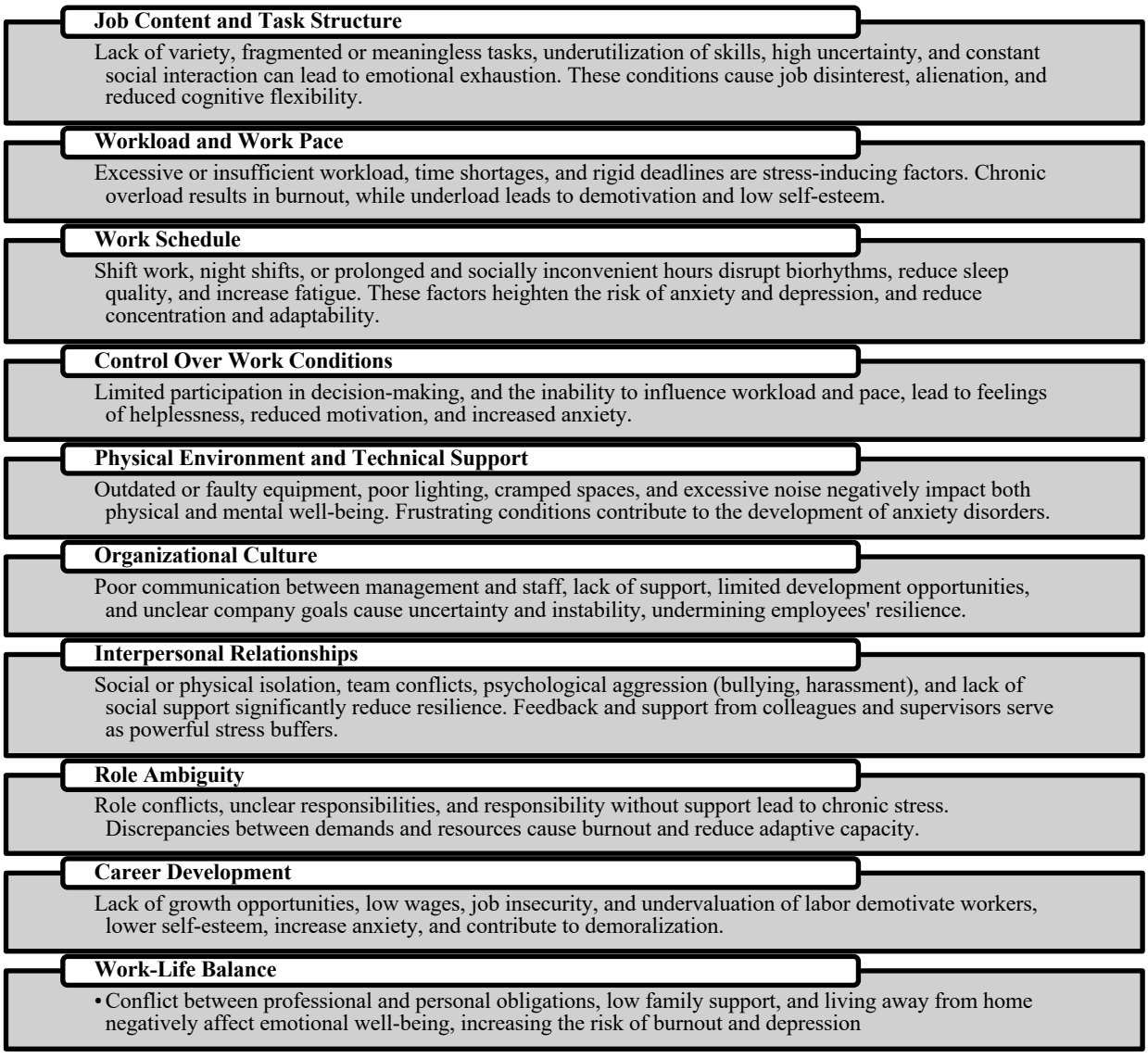

Figure 1. Top 10 categories of mental health risks in the workplace According to WHO Recommendations

Thus, the factors defined by the WHO are universal criteria for assessing the risks of mental health deterioration in the workplace. In the case of employees in the gas distribution sector, the relevance of these factors is heightened by the high technological complexity, physical danger, and emotional responsibility of their work, necessitating targeted psychological prevention and the creation of a psychologically safe climate.

The need for a comprehensive approach to studying and supporting the mental resilience of such employees is therefore evident. This opens opportunities for developing preventive and psychocorrectional programs aimed not only at preserving mental health but also at enhancing overall work efficiency.

Aims. The objective of this study is to examine the impact of working conditions on the mental resilience of employees engaged in high-risk jobs, with the aim of developing practical recommendations for improving workplace conditions and reducing psycho-emotional stress.

Methodology. The research utilized a mixed-method design that integrated both qualitative and quantitative approaches. Specifically, the study involved:

- A theoretical review of scholarly literature and current regulatory guidelines concerning occupational safety and the psychological well-being of employees in high-risk professions;
- Administration of a self-assessment tool for measuring anxiety, frustration, aggression, and rigidity—an instrument adapted from H. Eysenck's methodology—to assess the participants' psycho-emotional conditions;
- Use of the Coping Inventory for Stressful Situations (CISS), developed by N. Endler and J. Parker, to identify predominant coping strategies adopted by individuals under stress;
- Application of statistical techniques, including descriptive statistics and analysis of variance (ANOVA), to synthesize empirical findings and evaluate variability in psychological resilience indicators.

This methodological framework enabled a comprehensive assessment of employees' emotional states and facilitated the identification of key psychological factors that influence resilience in environments characterized by elevated occupational risk.

The study involved 69 employees of JSC "ZAPORIZHGAZ" performing hazardous work from various production units aged 20 to 61. Of these, 31 were women (45%) and 38 were men (55%).

Descriptive statistics are presented in Tables 1–4.

Table 1. Descriptive statistics of the research results on the level of anxiety according to the "Self-assessment questionnaire for anxiety, frustration, aggression, and rigidity"

Minimum value	0
Maximum value	14
Mean value	6,12
Median	4
Mode	5
Variance	14,6
Standard deviation	3,82
Variability	0,62

Source: estimated by the authors

The range between the minimum and maximum values indicates that all anxiety levels within the sample fall within the low to moderate range. The mean score (6.12)

suggests that the overall level of anxiety in the group is closer to the lower boundary of the “low anxiety” category. Both the median (4) and the mode (5) align with this general trend, confirming the group’s placement within the low anxiety range. The variance (14.6) and standard deviation (3.82) reflect a moderate dispersion of scores, indicating some variability in anxiety levels among participants, though not to a significant extent. The coefficient of variation (0.62) further supports the conclusion that the group is relatively homogeneous in terms of anxiety.

Among the surveyed employees, the distribution of anxiety levels was as follows:

- Low level of anxiety (0–7 points) - 47 respondents (68.1%);
- Moderate level of anxiety (8–14 points) - 22 respondents (31.9%);
- High level of anxiety (15–21 points) - 0 respondents (0%).

Table 2. Descriptive statistics of the results on the frustration level based on the "Self-assessment questionnaire for anxiety, frustration, aggression, and rigidity"

Minimum value	0
Maximum value	13
Mean value	5,62
Median	4
Mode	5
Variance	9,59
Standard deviation	3,1
Variability	0,55

Source: estimated by the authors

The range of minimum and maximum values indicates that all levels of frustration among respondents fall within the low to moderate categories. The variance (9.59) and standard deviation (3.10) suggest a moderate level of data dispersion. A coefficient of variation of 0.55 implies that the overall frustration level within the sample is relatively homogeneous.

The distribution of frustration levels among the surveyed employees is as follows:

- Low level of frustration (0–7 points) - 55 respondents (79.7%);
- Moderate level of frustration (8–14 points) - 14 respondents (20.3%);
- High level of frustration (15–21 points) - 0 respondents (0%).

These results indicate that the vast majority of participants exhibit a low level of frustration. This suggests that most employees are coping effectively with stressful circumstances or display a low predisposition to discouragement. Approximately one-fifth of the respondents demonstrate a moderate level of frustration, which may reflect occasional difficulties in managing adverse situations. No respondents were identified with a high level of frustration, which is a positive outcome—none of the individuals surveyed are currently experiencing severe emotional distress or frustration. The fact that 79.7% of the respondents exhibit the capacity to handle challenges effectively reflects overall emotional resilience. Nevertheless, attention should be directed toward the subset of individuals (20.3%) who exhibit some difficulties, to prevent the potential escalation of frustration levels.

The distribution of frustration levels among male respondents is as follows:

- Low level of frustration (0–7 points) - 32 respondents (84.2%);

- Moderate level of frustration (8–14 points) - 6 respondents (15.8%);
- High level of frustration (15–21 points) - 0 respondents (0%).

The frustration levels among female respondents, illustrated in Figure 2.8, are as follows:

- Low level of frustration (0–7 points) - 23 respondents (74.2%);
- Moderate level of frustration (8–14 points) - 8 respondents (25.8%);
- High level of frustration (15–21 points) - 0 respondents (0%).

Table 3. Descriptive statistics of the research results on aggression levels based on the "Self-assessment questionnaire for anxiety, frustration, aggression, and rigidity"

Minimum value	0
Maximum value	18
Mean value	7,12
Median	6
Mode	7
Variance	19,10
Standard deviation	4,37
Variability	0,61

Source: estimated by the authors

The range of aggression scores observed in the sample is fairly broad, encompassing all three levels—low, moderate, and high. The maximum recorded value (18) approaches the upper threshold of the high aggression range. The mean aggression score is situated at the boundary between the low and moderate levels (approximately 7), suggesting that the average respondent tends to exhibit low aggression, although moderate emotional responses may arise under certain circumstances. Half of the participants reported aggression scores equal to or below 6, while the most frequently occurring score was 7. Both values fall within the low aggression range, reinforcing the general tendency toward calm and self-regulated behavior among the sample.

The variance (19.10) and standard deviation (4.37) indicate a substantial dispersion of aggression scores, which points to notable individual differences in behavioral tendencies within the group. The coefficient of variation (0.61) also supports the conclusion that the sample is somewhat heterogeneous with respect to aggression levels.

The overall distribution of aggression scores among the surveyed employees (see Figure 2) is as follows:

- Low aggression level (0–7 points) - 39 respondents (56.5%);
- Moderate aggression level (8–14 points) - 27 respondents (39.1%);
- High aggression level (15–21 points) - 3 respondents (4.3%).

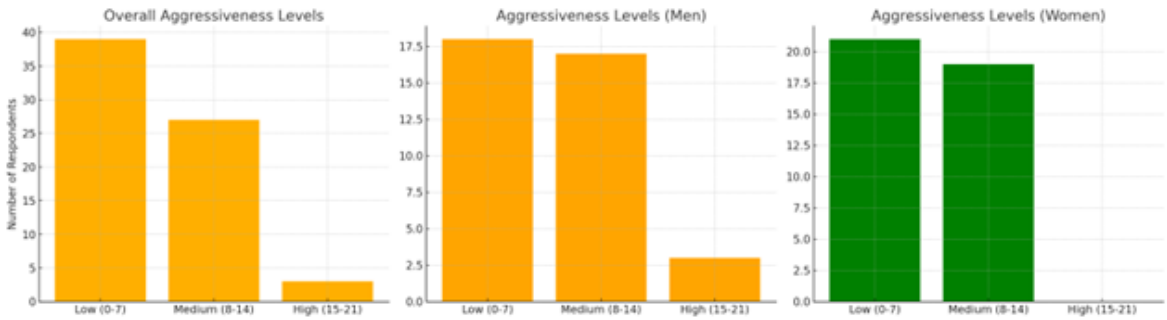

Figure 2. Analysis of Aggression Scale Data

Source: estimated by the authors

An analysis of aggression scale data reveals notable differences in aggression levels between male and female employees engaged in high-risk occupations. Overall, the majority of respondents (56.5%) exhibit a low level of aggression, indicating a prevailing calm behavioral style, emotional stability, and constructive interpersonal strategies within the context of professional activity.

When examining gender differences, it becomes apparent that low aggression levels are more prevalent among women (58.1%) compared to men (47.4%). Conversely, a moderate level of aggression was observed in 44.7% of male respondents and in 41.9% of female respondents. The most significant disparity is observed in the high aggression category: it was present only among men (7.9%), while none of the women demonstrated high aggression scores.

These findings suggest that men working in hazardous environments may be more prone to emotional responses under stress, potentially due to both biological predispositions and sociocultural expectations related to masculine roles in industrial settings. At the same time, the overall tendency toward rational behavior observed across the sample is a positive indicator for teams operating under elevated occupational risks.

Particular attention should be paid to those employees who demonstrated moderate or high levels of aggression. Without appropriate psychological support, these individuals may contribute to increased workplace tension, heightened conflict potential, and reduced team cohesion. This highlights the importance of implementing preventive measures focused on enhancing emotional self-regulation and promoting constructive coping strategies in response to stress.

Next, we examine the results of the survey assessing coping behavior in stressful situations, conducted using the Coping Inventory for Stressful Situations (CISS). Descriptive statistics of these results are summarized in Table 4.

Descriptive statistics of the results of the study using the CISS method allow us to assess the peculiarities of the choice of coping strategies by employees performing high-risk work. Employees performing high-risk work are mostly task-oriented (mean value 58.79), which is a constructive coping strategy in dealing with stress. In second place, with almost identical results, were avoidance strategies and emotion-focused coping. And distraction and social distraction are practically not characteristic of this sample.

Table 4. Descriptive statistics of the results for coping strategy selection under stress, based on the CISS methodology (N. Endler & J. Parker), for employees performing high-risk work

Coping Strategy	Mean	Mode	Median	Standard Deviation	Coefficient of Variation
Task-Oriented Coping	58.79	63	60	7.77	0.13
Avoidance	38.03	33	36	8.64	0.23
Emotion-Oriented Coping	37.99	33	38	8.00	0.21
Distraction	16.63	14	16	5.24	0.32
Social Diversion	14.07	12	14	3.20	0.23

Source: estimated by the authors

This indicates a predominantly rational and active model of behavior of the company's employees in stressful situations, which may be related to the specifics of their work, since solving problems in the gas distribution industry has always been and is a priority.

Thus, the predominant strategy is task orientation (35.53%). Employees try to actively solve problems, using their personal resources to find effective solutions. This strategy is useful in conditions of increased danger, as it allows you to focus on actions, rather than emotions or avoidance. Avoidance (22.98%) means that some employees choose the path of distancing themselves from problems, while emotion orientation (22.96%) indicates a focus on experiences associated with a stressful situation. These are less adaptive strategies that can reduce work efficiency in stressful conditions.

Distraction (10.05%) to other activities or seeking help from others (8.49%) are practically not used by workers performing high-risk work. This may be evidence of the specificity of the gas engineer profession, where professionalism, independence, and quick decision-making are critically important.

Results. The results of the study revealed that performing high-risk work has a significant impact on the mental states of employees, their mental health and professional self-efficacy. In particular, it was found that such conditions can lead to both the depletion of mental resources and the formation of adaptive strategies. The relationship between the level of stress resistance, motivational complex and the choice of coping strategies was established, which opens up prospects for optimizing working conditions and developing personnel support programs.

Despite the challenges, most employees demonstrate emotional stability, a high level of stress tolerance, professional self-efficacy, and a preference for adaptive coping strategies. Low levels of anxiety (68.1%), frustration (79.7%), aggressiveness (56.5%), and rigidity (56.5%) indicate the ability of employees to maintain emotional balance in difficult working conditions.

At the same time, employees with a different level of mental states would not be able to effectively perform their duties, since such work requires self-control, stability and promptness in decision-making.

The effectiveness of any psychocorrectional intervention is largely determined by the quality of the program design, which must involve the careful selection of

appropriate methods and techniques tailored to the individual's age, cognitive capacity, and physical condition. Employees engaged in high-risk occupations are routinely exposed to intense stress and psychological pressure, which may contribute to emotional exhaustion, heightened anxiety, and depressive symptoms. Therefore, the development of a targeted psychocorrectional program aimed at mitigating the adverse psychological effects of hazardous work environments is a critical step in safeguarding the mental well-being of such personnel.

An effective psychocorrectional program should be multifaceted in structure, addressing various dimensions of occupational functioning and incorporating both individual and group-based interventions. Its overarching objective is to diminish the psychological toll of stressful working conditions while simultaneously fostering the development of adaptive coping mechanisms. This may be achieved through several key strategies: enhancing employees' awareness of self-regulation and stress management techniques; providing training in anxiety-reduction practices and emotional stabilization; cultivating self-control skills essential for maintaining productivity under extreme conditions; and building a psychological reserve that strengthens resilience against potential traumatic stressors.

The proposed psychocorrectional program (Table 5) is a structured, evidence-based intervention aimed at supporting employees performing high-risk work by enhancing their psychological resilience, emotional regulation, and overall mental well-being. The program is designed as a preventive and corrective tool to mitigate the cumulative effects of occupational stress, reduce emotional burnout, and prevent the onset of anxiety-related and depressive disorders commonly observed in high-stress professional environments.

This program is multicomponent in nature and includes a combination of psychoeducational, cognitive-behavioral, and relaxation-based techniques, delivered through both individual and group formats. The program consists of several interrelated modules, each targeting a specific domain of psychological functioning.

The developed program is based on a systemic approach, which includes taking into account the four components of stress: physiological, emotional, cognitive, and behavioral, as well as the use of scientifically based methods to adjust the level of anxiety.

Discussion. The results of the study provide compelling evidence that employees engaged in hazardous work conditions—such as those in gas distribution enterprises—face considerable psychoemotional challenges, yet many demonstrate a high degree of mental resilience. The empirical data indicate that despite the presence of continuous occupational stressors, the majority of employees maintain low levels of anxiety and frustration, moderate levels of aggression, and show a preference for task-oriented coping strategies. These findings reinforce the view that mental resilience is not a fixed trait but a dynamic capacity shaped by both personal and environmental factors.

The low levels of anxiety (68.1% of respondents) and frustration (79.7%) suggest that employees have developed effective mechanisms for maintaining emotional equilibrium even in high-stress environments. The moderate spread of aggression levels—with a small but notable percentage (4.3%) showing high aggression—

indicates the need for targeted support interventions for individuals who may be more vulnerable to stress-induced irritability or emotional dysregulation. Gender-based differences in aggression responses further underscore the need for differentiated psychological support strategies that take into account the unique psycho-social pressures experienced by male and female employees.

Table 5. Psychocorrectional program to reduce the negative impact of working conditions on the mental stability of employees performing hazardous work

Purpose	Content	Duration
1. Introductory session Inform participants about the program's purpose, working methods, and expected results.	Introduction. Presentation on the impact of stress and the importance of mental resilience, discussion of typical stress factors in their work.	60 minutes
2. Psychoeducational session Raising awareness of physiological and psychological responses to stress.	Interactive lecture on the mechanism of stress, the role of self-regulation and mental resilience, the importance of emotional intelligence, the importance of self-help skills (presentations, discussions, short videos).	60 minutes
3. Relaxation techniques Learning skills that help you quickly restore emotional balance.	Practice breathing exercises, progressive muscle relaxation, and grounding techniques for stabilization during anxiety through demonstration and joint performance of exercises.	60 minutes
4. Cognitive-behavioral training Recognizing and correcting destructive thought patterns.	Identifying negative thoughts, learning techniques for replacing them with more adaptive ones, keeping a journal of automatic thoughts.	2 lessons of 90 minutes each
5. Developing stress management skills Forming effective strategies for coping with stress.	Introduction to time management methods, learning to prioritize tasks, approaches to managing stressful situations. Work in small groups, role-playing, situation modeling	2 lessons of 90 minutes each
6. Support team spirit and social interaction Strengthening team support and developing communication skills.	Team exercises aimed at improving mutual understanding and support in stressful situations. Group exercises to develop empathy, discuss situations, and model supportive conversations.	2 lessons of 90 minutes each
7. Final session and discussion of results Evaluation of the program results, discussion of the achieved changes and plans for further independent work.	Summing up, analysis of completed exercises, recommendations for further skill development. Discussion, feedback, development of individual mental health support plans.	60 minutes

Source: developed by the authors

The predominance of task-oriented coping strategies among respondents supports the notion that employees adopt active and solution-focused approaches when dealing with workplace stressors. This aligns with the functional demands of the gas distribution industry, which requires high levels of autonomy, responsibility, and precision. The relatively lower use of emotion-focused or avoidance coping strategies may indicate a healthy prioritization of practical problem-solving over maladaptive emotional processing. However, the minority who rely more heavily on these less adaptive strategies represent a group at risk for emotional exhaustion, interpersonal conflict, and decreased job performance.

The findings corroborate earlier theoretical assertions that psychological resilience is not merely the absence of distress but includes the proactive use of personal and organizational resources to maintain functionality in adverse environments. Traits such as emotional stability, self-control, and cognitive flexibility

were implicitly reflected in the participants' ability to perform under pressure and adopt constructive coping mechanisms. These outcomes are particularly significant in the wartime context, where traditional occupational stressors are compounded by systemic threats such as infrastructure damage, life-threatening situations, and intensified responsibility for public safety.

Importantly, the study highlights the critical role of workplace culture and support systems in shaping mental resilience. Although most participants demonstrated sufficient coping skills, the presence of even a small number of employees with moderate to high levels of psychological strain should prompt organizational leaders to implement proactive mental health strategies. This includes not only crisis intervention but also sustained prevention programs that reinforce emotional self-regulation, promote healthy team dynamics, and foster resilience as an organizational value.

The development and proposed implementation of a structured psychocorrectional program is a key contribution of this study. Designed to address the cognitive, emotional, behavioral, and physiological dimensions of stress, the program is both preventive and corrective in scope. It recognizes that resilience can be trained and supported, especially through a combination of psychoeducation, relaxation techniques, cognitive-behavioral approaches, and team-based interventions. The structured format of the program—with clear objectives, timeframes, and content—makes it both feasible and scalable across similar high-risk work environments.

Moreover, this research fills a critical gap in the literature by focusing on a profession that is often overlooked in psychological resilience studies: employees in the gas distribution sector. The findings have practical implications not only for improving individual well-being but also for enhancing operational efficiency and reducing risks associated with human error and burnout. In the broader context of national infrastructure and energy security, investing in the mental health of such employees is a strategic imperative.

Finally, the study provides a foundation for future research into longitudinal effects of resilience training, the role of organizational leadership in fostering psychological safety, and the interaction between individual coping styles and group cohesion. These directions are vital for creating sustainable mental health ecosystems in high-risk industries and for aligning psychological support strategies with broader occupational safety frameworks.

Conclusions. The findings of this study underscore the critical role of mental resilience in ensuring the psychological well-being and professional performance of employees engaged in hazardous occupations. The results confirm that while most individuals demonstrate a high level of emotional stability, task orientation, and adaptive coping, the demands of high-risk work environments continue to exert a significant psychoemotional toll on employees. The presence of low anxiety and frustration levels among the majority of respondents suggests that a substantial portion of the workforce possesses internal psychological resources and coping mechanisms that support functional adaptation to workplace stressors.

Nevertheless, the data also highlight the existence of individual differences in

aggression levels and coping strategies, which require organizational attention. Employees who demonstrate moderate or high levels of psychoemotional strain may be at increased risk for conflict, reduced efficiency, or burnout if appropriate interventions are not implemented. Gender-based differences in emotional responses further indicate the need for tailored psychological support measures.

The development and proposed implementation of a structured psychocorrectional program represents a significant practical contribution of this research. Designed with a systemic and multicomponent approach, the program addresses the physiological, emotional, cognitive, and behavioral aspects of stress. Its preventive and corrective modules—ranging from psychoeducation to cognitive-behavioral training—aim to strengthen self-regulation, reduce emotional reactivity, and build long-term psychological resilience.

Importantly, the study emphasizes that mental resilience is not merely an individual trait but a dynamic process shaped by the interaction between personal characteristics and organizational environments. As such, it is imperative that gas distribution enterprises and other high-risk industries invest in institutionalized mental health support systems. This includes the creation of psychological services, training of support personnel, and the integration of resilience-building programs into occupational health and safety policies.

In conclusion, supporting the mental resilience of employees in hazardous work environments is not only an ethical obligation but also a strategic necessity for maintaining public safety, operational continuity, and workforce sustainability. Future efforts should focus on long-term monitoring of employee well-being, ongoing refinement of psychocorrectional interventions, and the alignment of workplace practices with international standards for occupational mental health.

Author contributions. The authors contributed equally.

Disclosure statement. The authors do not have any conflict of interest.

References:

1. Arshinova, V. H., & Shuvalova, S. I. (2019). *Psykholohichna stiikist osobystosti* [Psychological resilience of personality]. Institute of Psychology.
2. Akhverdova, O. I. (2020). *Stresostiikist u profesiiakh z pidvyshchenym ryzykom* [Stress resistance in high-risk professions]. V. N. Karazin Kharkiv National University.
3. Burlakova, I. (2024). The impact of emotional intelligence and digital empathy on the financial stability of enterprises. *International Conference on Economics, Accounting and Finance*, Estonia, 75–76. https://conf.scnchub.com/index.php/ICEAF/ICEAF-2024/paper/view/803
4. Burlakova, I., Sheviakov, O., & Kondes, T. (2021). Coaching as a tool for the formation of corporate well-being. https://conf.scnchub.com/index.php/ICEAF/ICEAF-2021/paper/view/306
5. Burlakova, I., Sheviakov, O., & Kondes, T. (2022). Cognitive flexibility of thinking as a necessary condition for human adaptation to complex life situations. *Relationship between Public Administration and Business Entities Management*. https://conf.scnchub.com/index.php/RPABM/RPABM-2022/paper/view/481
6. Endler, N., & Parker, J. (1999). *Coping Inventory for Stressful Situations (CISS): Manual*. Multi-Health Systems.
7. Grigoryan, O. (2022). Osoblyvosti psykholohichnoi adaptatsii v ekstremalnykh umovakh [Psychological adaptation in extreme conditions]. *Zhurnal psykholohii pratsi*.
8. Karamushka, L. M. (2015). *Psykholohichna bezpeka pratsi ta zdorovia personalu* [Psychological safety of work and employee health]. Institute of Personnel Policy.
9. Kravytsov, D. (2021). Psykholohichna stiikist yak chynnyk profesiinoi sameefektyvnosti [Psychological resilience as a factor of professional self-efficacy]. *Visnyk psykholohii*, (2).
10. Luneva, T. V., & Kudryavtseva, O. Yu. (2018). Balans mizh robotoyu ta osobystym zhyttiam: vyklyky suchasnosti [Work-life balance: Modern challenges]. *Naukovyi zhurnal Psykholohiia i pedahohika, 2*(2), 45–52.
11. Maksymova, N. Yu. (2016). Sutnist i struktura psykholohichnoi stiikosti osobystosti [The essence and structure of psychological resilience]. *Psykholohiia i suspilstvo*, (2).

12. Sheviakov, O., Burlakova, I., & Kornienko, V. (2022). Psychological provision of processes modernization of metallurgical production management. *Science Notes of KROK University*, *2*(66), 192–203. https://doi.org/10.31732/2663-2209-2022-66-192-203
13. Sarkisian, H. V. (2017). Vplyv stresu na psykhichne zdorovia: rol sotsialnoi pidtrymky [The impact of stress on mental health: The role of social support]. *Aktualni problemy psykholohii*, (1), 17–26.
14. Smirnov, B. A., & Dolhopolova, Ye. V. (2020). Psykho-fiziolohichna stiikist u profesiiakh z ekstremalnymy umovamy pratsi [Psycho-physiological resilience in extreme professions]. *Psykhofiziolohiia*, (1).
15. Vasylenko, Ye. (2021). Profesiino-psykholohichna stiikist pratsivnykiv [Professional-psychological resilience of employees]. *Orhanizatsiina psykholohiia*, (4).
16. World Health Organization. (2022). *Guidelines on mental health at work*. Geneva: WHO.
17. World Health Organization. (2023). *Keriuni pryntsypy z okhorony psykhichnoho zdorovia na robochomu mistsi*[Guidelines on mental health at the workplace]. International Labour Organization. https://iris.who.int/bitstream/handle/10665/369584/WHO-EURO-2023-5166-44929-68953-ukr.pdf
18. Zlobin, K., Litvin, N., & Burlakova, I. (2023). The impact of wellbeing programs on productivity and staff loyalty. *Science Notes of KROK University*, *1*(69), 162–170. https://doi.org/10.31732/2663-2209-2022-69-162-170