



ŽIVKOVIĆ SNEŽANA¹ MILENOVIĆ MIODRAG² RAKIĆ TOMISLAV³

¹University of Niš, Faculty of occupational safety in Niš ²University of Niš, Faculty of Philosophy in Niš ³TommyR corptex LLC Leskovac

¹snezana.zivkovic@znrfak.ni.ac.rs ²miodrag.milenovic@filfak.ni.ac.rs ³tomislav.rakic@gmail.com

PSYCHOSOCIAL RISK MANAGEMENT

Abstract: Nowadays, risk is considered to be a serious economic, public and political problem. Professional risk and work-related stress have the potential to negatively affect an individual's psychological and physical health, as well as an organisation's effectiveness. Psychosocial risks as a likelihood that work-related psychosocial hazards will have a negative impact on employees' health and safety through their perceptions and experience have been identified as one of the major contemporary challenges for occupational safety and health. Psychosocial risk management is based on the principles of prevention and aims at risk elimination or reduction.

Key words: psychosocial risk, management, preventive measures, risk assessment, stress

INTRODUCTION

Taking into account that term risk includes, among other things, the exposure to the actions of factors that can lead to undesirable consequences by their activity, which in practice is seen as the emergence of some types of costs, whether it is a known cost or missed profit due to an injury at work, occupational disease or work-related illness, professional risk can be determined as a combination of the likelihood of occurrence of hazards and injuries at the workplace and the severity of the injury or health risk (health damage) that may be caused by a dangerous event or exposure to it [29].

Professional risk represents the risk of adverse effects in the work environment, in other words, occupational risks pose risks in the workplace, caused by danger and hazards [6]. Considering that, under certain conditions, each of the elements of the work environment implies a risk, a large number of risk factors are potentially present in the workplace environment system. Certainly, the risk of the working environment system should be considered as part of the quality of the technological system [13]. Systematic approach and system analysis must be the basis for the analysis and risk assessment in the work environment [23].

In recent decades, numerous changes recognize new elements of professional risk in the world of work, so-called psychosocial risks, which lead to stress at work, and consequently to numerous negative outcomes for workers and organizations.

PSYCHOSOCIAL RISKS

Psychosocial risks represent all aspects of work arising from poor planning, organization and job management, and poor social climate in which work takes place, resulting in negative psychological, physical and social outcomes among workers. Although some jobs are more stressful than others, in each job a worker can be exposed to negative psychological, social and physical

influences from a psychosocial work environment that can lead to a stressful experience of the workers, which can negatively affect his health and well-being in long terms [10].

According to the definition of the International Labor Organization (ILO), psychosocial risks and hazards at work are related to the confrontation between job requirements, work environment, job content and organization of work on the one hand and work performance, job satisfaction, workers' physical and psychological features, knowledge, needs, satisfaction of cultural needs and habits related to the demands of work on the other hand [8]. Psychosocial risks at work are all those characteristics of work that the worker experiences as unfavorable for their mental, physical or general health [33]. Cox determines these risks as those aspects of organization of work, job design, management of work processes, social opportunities at work and ecological characteristics of work which have the potential to inflict psychological or physical damage upon the worker [3].

Psychosocial risks and work-related stress are one of the most challenging issues in the field of health protection and safety at work which organizations around the world face with. Stress negatively affects all participants in the organization and significantly contributes to negative health and economic outcomes [34].

With timely identification and adequate assessment of psychosocial risks, a comprehensive preventive approach, the implementation of measures for their removal and the creation of the characteristics of a healthy psychosocial work environment, it is possible to create healthy workplaces and healthy organizations in which workers are satisfied, motivated and have positive attitude towards their work.

The daily exposure to elevated levels of psychosocial risks in the workers results in the experience of work-related stress and, consequently, numerous negative psychological, physical and social outcomes.

Psychosocial risks, or sources of stress at work, relate to negative influences from a psychosocial work environment such as poor planning, organization and job management, and poor social climate in which work is taking place. They can arise from the content of the job, that is, the very nature of the job and the conditions in which the work is performed or from the characteristics of the work organization, i.e. the entire work context.

Psychosocial risks arising from the content of the business refer to:

- Work content (work with clients, patients, students, etc., lack of variety of work tasks, short cycles of work, monotonous jobs, unused abilities and skills of workers, etc.):
- Work intensity (too high or too low workload; time pressures, unrealistic or unattainable deadlines);
- Working schedule (shift work, night work, overtime work, inability to influence the work schedule, unpredictable working hours);
- Working conditions (inadequate operating conditions noise, temperature, light, inadequate work equipment) [3,34].

Psychosocial risks arising from the characteristics of the organization refer to:

- Organizational culture (poor communication, lack of feedback, low level of support for problem solving and personal development, unclear organizational goals);
- Control at work (lack of control over work tasks and processes, inability to decide on the way and time of performing tasks, insufficient participation in decision making);
- Work roles (lack of clarity of the role failure to provide sufficient information for performing work efficiently; job role conflict incompatible or conflicting work requirements (work assignments, values, rules); high level of responsibility for people, property;
- Interpersonal relations (poor or conflicting interpersonal relationships, poor relation with managers and superiors, lack of social support, isolation, harassment, threats, violence);
- The possibility of professional development (career stagnation, inability to progress, low salary, job insecurity, low social value of work);
- Work-family balance (inability to align private obligations with obligations on the business plan; low level of support at home; the influence of a partner's career on family life) [3,34].

Daily exposure to psychosocial risks increases the level of stress that can manifest as physical, mental and social dysfunction of the worker. Since work-related stress is the result of the interaction of the worker with his working environment, it arises from the imbalance of the job requirement and working conditions and knowledge, skills, physical and mental characteristics of workers. If the demands that the work places on the

worker exceed its capacity and ability to deal with the active worker, the worker will experience a subjective feeling of stress [16].

Mildly elevated levels of stress (eustress, positive stress) can work favorably on the worker as it will direct his attention, increase motivation and readiness to face challenges. However, if the worker is exposed to high levels of stress for a long time, the feeling of overload, fatigue and exhaustion will be accompanied by numerous negative effects [34].

Stress of the worker is manifested through stress reactions that can emerge at an emotional, cognitive, physical or behavioral level. The reactions themselves do not represent damage to health, but are the first sign that a factor in the workplace causes a physical and emotional damage to the worker:

- Emotional reactions (irritability, restlessness, distress, grumpiness, mood changes, indifference or excessive sensitivity, overload, lack of relaxation);
- Cognitive reactions (difficulties in concentration and memory, indecision, constant concern, difficulties in learning new knowledge and skills);
- Physical reactions (sweating, headache, heartburn, chest pain, sleeping difficulties, development of psychological and physical disorders, psychosomatic reactions);
- Behavioral reactions (changes in appetite, increased consumption of coffee, alcohol, tobacco, destructive behavior, isolation or excessive addiction in social relationships).

Long-term exposure to elevated levels of stress can result in disrupted mental and/or physical health and well-being of workers as well as negative organizational outcomes. Workers experiencing high levels of stress at work often have health problems of physical [4,12,27,30] and psychological nature [1,17,20,28], they are less motivated and efficient and their safety at work is compromised. Consequently, the number of errors, injuries and accidents at work increases, workers are more often absent from jobs, the efficiency of the work organization decreases, while its costs increase [34].

OCCUPATIONAL RISK MANAGEMENT

The Occupational Health and Safety Management System (OHSAS) is a part of the global management system [24] whose goal is the establishment of risk control in relation to hazards and danger and ensuring continuity of the organization's operations. This system facilitates the management of OH & S risks related to organization's operations, including organizational structure, planning activities. responsibilities, practices, procedures, operations, processes and resources for developing, achieving, reviewing and maintaining OHS policy [25].

The Occupational Health and Safety System is regulated by a series of OHSAS 18000 standards. The listed standards are OHSAS 18001 – Occupational Safety and Health Management System – Requirements defining the requirements for occupational health and safety management systems in order to enable the organization to manage OH & S risks and to improve its OH & S performance and OHSAS 18002 – Occupational Safety and Health Management System – an application guide that contains non-certifying guidelines designed to provide generic support to the organization in the very process of establishing, applying or improving the health and safety management system at work.

A clear strategic approach to identifying risks, controlling and reducing the level of adverse effects of risky events is ensured through quality and professional risk management. In this way, conditions are created in which it is possible to define priorities and take appropriate measures in the specific part of the system in order to reduce damage and losses. Of course, risk management also has other benefits for organizations such as the safeguarding of assets, human and material resources and incomes. Risk management is often a very complex process that involves a number of measures and activities, for which numerous methods and procedures have been developed.

Joy cites the following stages as having an inherent approach to risk management:

- Identification of risks involving identification of hazards and situations that potentially can lead to damage and loss;
- Risk analysis where the extent of risk is estimated as a result of an adverse event;
- Risk control, which involves deciding on adequate measures to reduce and control unacceptable risks;
- Implementation and maintenance of the implemented measures in order to control them and ensure their efficiency [11].

Bearing in mind that it is not possible to eliminate the occurrence of hazards and/or harmfulness as well as to produce perfectly ergonomic means of work that would not be corrupted or canceled, i.e. to completely eliminate human error and the human factor during the work process, it is necessary to choose the organization of the working environment system which will be characterized as one that respects the real possibilities for the emergence of initial risk factors and which will include measures, procedures and means by which it is possible to conduct timely elimination of conditions and/or reducing the consequences of realization of above mentioned initial risk factors.

It is very important to emphasize that the management of professional risk itself does not imply elimination of risk, but rather the reduction of the risk inherent in a particular system to a level that is deemed acceptable. Therefore, the work environment will be considered safe if the risk of the system's environment is acceptable. In such environment, in certain operating conditions, a state is maintained with inherent inability (in a certain percentage of probability) of occurrence of risky events under the influence of danger and harmfulness, i.e. their factors.

THE MANAGEMENT OF PSYCHOSOCIAL RISKS AND WORKPLACE STRESS

Psychophysiological efforts can damage health of the workers exposed to them and can occur as a consequence of exposure to psychosocial risks in the workplace (e.g. unfavorable work rhythm – work on norms, work with uneven rhythms, etc., work with disordered biorhythm – work at night, extended work, etc., work with difficulty in receiving information due to the nature of the work environment, etc.). In this regard, the employer should conduct work-related stress prevention while carrying out a risk assessment for psychophysiological efforts at workplaces, with the prior determination of psychosocial risks and the identification of stressors.

It is considered that psychosocial and work-related risks can be managed as well as any other health and safety risks at the workplace [34]. Proper assessment of psychosocial risks is a key element in the successful management of psychosocial risks.

The first step in the successful management of psychosocial risks is their timely identification, as well as the identification of those workers or groups of workers who are under increased risk. Existing data on sick leaves, injuries, fluctuations and health problems of workers can help in identifying problematic areas within the organization. Gathering information about existing problems from the psychosocial work environment can give a good insight and encourage a discussion about the existence of psychosocial risks within the organization.

Stress management is not only a moral obligation and a good investment for employers, it is also a legal priority defined in General Directive 89/391/EEC as well as in the framework agreements of social partners at the level of the European Union. Namely, at the level of the Union, the importance of introducing measures to encourage improvements in the safety and health of workers at the workplace has been recognized. A legal priority defined in the General Directive 89/391/EEC on Occupational Safety and Health was set up to encourage the introduction of preventive measures to improve working conditions in order to contribute to the safety and health of workers at the workplace.

In addition to the General Directive, a number of individual directives focusing on specific aspects of occupational safety and health, including psychosocial and work-related stress, have been adopted. An important document in this area is the Framework Agreement on Work-related Stress [19] of European social partners from 2004, which aims to provide

employers and workers with a framework for identifying and preventing or managing problems of stress at workplace. The Framework Agreement on Harassment and Violence at Work [20] was adopted in 2007 with the aim of raising awareness about the unacceptability of harassment and violence at the workplace, and provides a framework for activities to identify, prevent and address the problems of harassment and violence at the workplace.

The assessment of psychosocial risks is most often carried out through employee surveys about their experience of exposure to this type of workplace risk. It is important to take care of protecting the anonymity of workers in order for the data obtained to be valid and reflect the actual situation in the organization. The assessment of psychosocial risks determines which risks are most pronounced and pose a risk to health, injuries or reduced work efficiency [32].

The best way to get to know what problems workers are facing involves direct contact with workers and talking to them. There is a number of standardized tools for assessing psychological risks that are simply usable on a large number of workers and provide useful information on levels of psychosocial risk at work, such as the Psychosocial Risk Assessment Questionnaire [14,15,21] and the Checklist for the Prevention of Work-related Stress [5,9,31].

PREVENTION OF PSYCHOSOCIAL RISKS

Regarding the prevention of psychosocial risks, reducing or eliminating psychosocial risks in the organization is a process that requires time and changes in the work environment, work organization, management and social climate in the organization. The process of change can be directed to an organization as a whole, to a worker or a group of workers. Interventions should be carried out systematically and in cooperation with workers.

It is essential to eliminate the identified psychosocial risks in order to prevent the occurrence of work-related stress. If risks cannot be eliminated, it is necessary to educate workers and provide them with available sources of assistance in order to strengthen their ability to deal with stressful situations. If, however, there are workers who show symptoms related to stress at work, it is necessary to provide them with professional assistance and support.

Prevention of psychosocial risks can be primary, secondary and tertiary.

Primary prevention refers to taking measures in an organization to remove the source of stress and create a healthy workplace [2]. After assessing psychosocial risks, it is necessary to introduce changes in the working environment and the social climate in order to eliminate or reduce the level of risk or exposure of workers to risks. The healthy psychosocial working environment provides the worker with support, a

stronger sense of social inclusion, identity and status, and an opportunity for professional and personal development. Primary prevention often requires time to give results regarding the length of the period in which employees adapt to new work practices [22].

Secondary prevention refers to empowering workers to deal with psychosocial risks by teaching them new knowledge and skills. If psychosocial risks in the workplace cannot be completely eliminated, it is necessary to increase the workers' capacities for coping through education and training [26]. Education and training can be focused on coping with stress, developing and improving communication skills, conflict management skills and time management skills.

Tertiary prevention refers to providing assistance to workers who have effects on physical and mental health due to exposure to psychosocial risks, or to those who experience the negative effects of stress at work. Assistance can be provided in the form of individual counseling or assistance in returning to work.

For the proper assessment and management of psychosocial and work-related stress, it is important that workers are involved in problem determination and the design and implementation of measures. Workers and their representatives best understand the problems that are present at the workplace, and their inclusion is key to successful risk management and the effectiveness of preventive measures. By consulting with workers, managers can encourage an open discussion of problems and expression of concern and create an atmosphere of trust, which is an excellent basis for a joint fight against stress at work.

The effectiveness of prevention measures is greater if:

- The implementation of prevention measures is a clear and structured process;
- Workers are actively involved in the process;
- There is support within the organization and vertical communication;
- There is support at the sectoral and national level [34].

In the organizational context, it has been shown that the effectiveness of measures is greatest when combining primary and secondary prevention measures, and those targeted at the organization as a whole, at workers or groups of workers who are affected by risks due to different circumstances [7].

Before selecting preventive measures it is necessary to consider the existing system, to find a place for the introduction of measures for the removal and/or reduction of psychosocial risks, i.e. suitable solutions in real circumstances. A smaller number of well-designed and structured measures with a clearly defined schedule of implementation, deadlines, objectives and key persons for implementation and monitoring are recommended. When implementing the measures, it is necessary to monitor the progress in achieving the set short-term objectives in relation to the set deadlines in

order to determine whether interventions are taking place according to the planned course. Feedback from workers at this stage is also of great importance [18].

CONCLUSION

Taking into account the above, it can be concluded that the risk assessment process is the basis for the overall approach to occupational safety and health, bearing in mind the fact that the entire concept of European Union occupational health and safety includes the prescriptions of prevention measures based on the risk assessment process for each identified. In case that the risk assessment is not adequately implemented or if it is completely absent as a process, it is not expected that preventive measures will be prescribed and applied in the necessary places.

Risk assessment should be structured in a way that takes into account all existing hazards. After the identification of the hazards and harmfulness and determination of the level of risk, the primary objective of risk assessment, as mentioned above, is the elimination of risks, i.e. the introduction of measures that can eliminate its negative effects.

Psychosocial risk management should be systematic oriented and on-going process in order that hazards could be identified, risks analysed and managed, and workers protected in particular since the relevance of psychosocial risks to subjective perceptions and the work environment dynamics make their continuous assessment necessary.

REFERENCES

- Cohen, S., Janicki-Deverts, D., Miller, G.E. "Psychological Stress and Disease", Journal of the American Medical Association, 298(14), 2007, pp. 1685-1687.
- [2] Cooper, C.L., Cartwright, S. "An intervention strategy for workplace stress", Journal of Psyschosomatic Research, 43(1), 1997, pp. 7-16.
- [3] Cox, T. "Stress research and stress management: putting theory to work", report prepared for the Health and Safety Executive, 1993, available at: http://www.hse.gov.uk/research
- [4] De Bacquer, D., Van Risseghem, M., Clays, E., Kittel, F., De Backer, G., Braeckman, L. "Rotating shift work and the metabolic syndrome: a prospective study", International Journal of Epidemiology, 38, 2009, pp. 848-854.
- [5] Dekkers-Sánchez, P.M., Wind, H., Frings-Dresen, M.H., Sluiter, J.K. (2015). "Implementation of a checklist to assess factors relevant for work ability assessments of employees on long-term sick leave", International Archives of Occupational and Environmental Health, 88(5), pp. 577-588.
- [6] Dulac, N. "A Framework for Dynamic Safety and Risk Management Modeling in Complex Engineering Systems", PhD thesis, 2007, MIT.
- [7] Giga, S.I., Noblet, A.J., Faragher, B., Cooper, C.L. "The UK perspective: A review of research on organisational

- stress management interventions", Australian Psychologist, 38, 2003, pp. 158-164.
- [8] International Labour Office (ILO) and joint WHO Committee on Occupational Health. "Psychosocial factors at work: Recognition and control", Occupational Safety and Health Series no. 56, 1986, Geneva.
- [9] International Labour Organization. "Stress prevention at work checkpoints: Practical improvements for stress prevention in the workplace Geneva", International Labour Office, 2012, Geneva.
- [10] Jayashree, R. "Stress management with special reference to public sector bank employees in Chennai", International Journal of Enterprise and Innovation Management Studies, 1(3), 2010, pp. 34-35.
- [11] Joy, J. "Occupational safety risk management in Australian mining", Occupational Medicine, 54(5), 2004, pp. 311-315.
- [12] Kolstad, HA. "Nightshift work and risk of breast cancer and other cancers - A critical review of the epidemiologic evidence", Scandinavian Journal of Work, Environment and Health, 34, 2008, pp. 5-22.
- [13] Krstić, I., Anđelković, B. "Profesionalni rizik", Fakultet zaštite na radu u Nišu, 2013, Niš.
- [14] Magnavita, N. "Questionnaires for psychosocial risk assessment at work", Giornale italiano di medicina del lavoro ed ergonomia, 30(1 Suppl A), 2008, A87-97.
- [15] Moncada, S., Utzet, M., Molinero, E., Llorens, C., Moreno, N., Galtés, A., Navarro, A. "The copenhagen psychosocial questionnaire II (COPSOQ II) in Spain--a tool for psychosocial risk assessment at the workplace", American journal of industrial medicine, 57(1), 2014, pp. 97-107.
- [16] Narahari, L., Konoreu, K. "A Study on Role of Occupational Stress in Organizations, International Journal of Engineering Technology", Management and Applied Sciences, 5(1), 2017, pp. 53-59.
- [17] Niedhammer, I., Chea, M. "Psychosocial factors at work and self reported health: comparative results of cross sectional and prospective analyses of the French GAZEL cohort", Occupational and Environmental Medicine, 60, 2003, pp. 509-515.
- [18] Nielsen, K., Randall, R., Holten, A.L., Rial Gonzalez, E. "Conducting organizational-level occupational health interventions: What works? ", Work and Stress, 24, 2010, pp. 234-259.
- [19] OSHA. European Social Partners, Framework Agreement on Work-related Stress, European social partners - ETUC, UNICE(BUSINESSEUROPE), UEAPME and CEEP, 2004, Brussels.
- [20] OSHA. "European Social Partners, Framework Agreement on Harassment and Violence at Work", European social partners ETUC, BUSINESSEUROPE, UEAPME and CEEP, 2007, Brussels.
- [21] Potocka, A. "Questionnaires for assessment of work-related psychosocial hazards -a review of diagnostic tools", Medycyna pracy, 63(2), 2012, pp. 237-250.
- [22] Randall, R., Nielsen, K. "Interventions to promote well-being at work", In: S. Leka & J. Houdmont (Eds.) Occupational Health Psychology, Chichester, England, 2010, Wiley-Blackwell.
- [23] Savić, S. "Integration of Management Systems in Terms of Optimization of Workplace Human Performance",

- Facta Universitatis, Series: Working and Living Environmental Protection, 2(1), 2001, pp. 27-38.
- [24] Staletović, N. "Ocena OH&S rizika u funkciji preventivnog inženjeringa i integrisanih sistema menadžmenta (QMS/EMS/OHSAS) ", Tehnika – Menadžment, 59(3), 2009, str. 8-14.
- [25] Стојиљковић, В., Стојиљковић, П., Стојиљковић, Б., Обрадовић, З. "Интегрисани системи менаџмента", СІМ College DOO, Универзитет у Нишу, Машински факултет у Нишу, 2006, Ниш.
- [26] Sutherland, V.J., Cooper, C.L. "Strategic Stress Management: An Organizational Approach", Palgrave, 2000, New York.
- [27] Shiozaki, M., Miya, N., Morioka, I., Utsumi, M., Hattori, S., Koike, H., Arita, M. Miyashita, K. "Job stress and behavioral characteristics in relation to coronary heart disease risk among Japanese police officers", Industrial Health, 2017, 2016-0179, in press.
- [28] Tzeng, D.S., Chung, W., Yang, C. "The effect of job strain on psychological morbidity and quality of life in military hospital nurses in Taiwan: a follow-up study", Industral Health, 51, 2013, pp. 443-451.
- [29] Vukčević, N., Mitić, Ž. "Procena rizika za vozača specijalnih vozila", Drugi naučni skup Politehnika 2013, Beograd.
- [30] Wang, J.L., Lesage, A., Schmitz, N., Drapeau, A. "The relationship between work stress and mental disorders in men and women: findings from a population-based study", Journal of Epidemiology and Community Health, 62(1), 2008, pp. 42-47.
- [31] Weigl, M., Müller, A., Paramythelli, A., Angerer, P., Petru, R. "Checklist for psychosocial risk evaluation: a prospective evaluation study", Occupational Medicine (London), 67(1), 2017, pp. 7-12.
- [32] World Health Organization. "Raising awareness of stress at work in developing countries: a modern hazard in a traditional working environment advice to employers and worker representatives", Health Series No. 6, 2007, Geneva
- [33] Zavalić, M. "Psihosocijalni rizici i zdravlje radnika", Sigurnost, 57(3), 2015, str. 211-217.
- [34] Живковић, С. "Психофизиологија рада", Материјал са предавања, Факултет заштите на раду у Нишу, 2016, Ниш.

BIOGRAPHY

Snežana Živković is professor at the Faculty of Occupational Safety, University of Nis. Graduated on Philosophical Faculty in Belgrade, section Psychology. Magistrature and Doctorate on Faculty of Occupational Safety, University



of Nis. Her work includes five monographs, two textbooks and more than 200 research papers published in international and national science and professional journals as well as in proceedings of international and national scientific and professional conferences in the field of psychology, business management, organizational culture, organizational behavior, safety system of working and living environment, organization of fire protection, etc. Reviewer and expert editor in the translation of textbooks in use at the Faculty of Occupational Safety. Research interests: Influence of psycho-social and organizational work factors on work safety, organizational behavior, human resources and emergency management. She has worked as member in 4 research projects..

UPRAVLJANJE PSIHOSOCIJALNIM RIZICIMA

Živković Snežana, Milenović Miodrag, Rakić Tomislav

Rezime: Danas, rizik se smatra ozbiljnim ekonomskim, javnim i političkim problemom. Profesionalni rizik i stres u vezi sa radom imaju potencijal da negativno utiču na psihološko i fizičko zdravlje pojedinca, kao i efikasnost organizacije. Psihosocijalni rizici kao verovatnoća da će psihosocijalne opasnosti u vezi sa radom imati negativan uticaj na zdravlje i bezbednost zaposlenih kroz njihove percepcije i iskustva identifikovani su kao jedan od glavnih savremenih izazova za bezbednost i zdravlje na radu. Upravljanje psihosocijalnim rizicima se zasniva na principima prevencije i ima za cilj otklanjanje ili smanjenje rizika.

Ključne reči: psihosocijalni rizik, upravljanje, preventivne mere, procena rizika, stres.