



STRESS AT WORK AND EMPLOYEE MOTIVATION

Adam Rudzewicz

Faculty of Economic Sciences
University of Warmia and Mazury in Olsztyn
ORCID: <https://orcid.org/0000-0002-7807-9375>
e-mail: adam.rudzewicz@uwm.edu.pl

JEL Classification: L3, M12, M14, M54.

Key words: stress, motivation, employee, city hall.

Abstract

Today's work environment poses many challenges for organisations in terms of stress management and motivation. The main objective of this research is to determine the relationship between workplace stress and employee motivation levels. The research investigation was conducted on the example of employees of a local government institution (city hall) in north-eastern Poland, exploring their experiences of occupational stress (stress) and declared motivation. An online survey questionnaire was used in the study. The research sample consisted of 90 people (100% of staff). The main finding of the research is that few people do not experience stress in the workplace. This is an important observation that highlights the prevalence of this phenomenon. Of course, it is not always at a dysfunctional level. However, it should be noted that one in five employees is severely affected by it. Respondents showed a moderate level of their professional motivation. The majority of staff are focused on their job duties and recognise their commitment, but work is not their passion. A negative correlation was found between stress levels and professional motivation. There is also variation in the way stress affects motivation. Depending on employees' gender, age, income and occupational position, the relationship is clearly different. Men show a greater susceptibility to decreased motivation in stressful situations compared to women. In addition, those in managerial positions show a weaker correlation between stress and motivation, i.e. their motivation is not as strongly linked to stress as for employees in lower positions. Similarly, the relationship is for older versus younger people and higher earners versus lower earners.

STRES W PRACY A MOTYWACJA PRACOWNIKÓW

Adam Rudzewicz

Wydział Nauk Ekonomicznych
Uniwersytet Warmińsko-Mazurski w Olsztynie

Kody JEL: L3, M12, M14, M54.

Słowa kluczowe: stres, motywacja, pracownik, urząd miasta.

Abstrakt

Współczesne środowisko pracy stawia przed organizacjami wiele wyzwań związanych z zarządzaniem stresem i motywacją. Głównym celem przeprowadzonych badań jest określenie relacji między stresem występującym w miejscu pracy a poziomem motywacji pracowników. Postępowanie badawcze przeprowadzono na przykładzie pracowników instytucji samorządowej (urząd miasta) w Polsce północno-wschodniej, zgłębiając ich doświadczenia związane z napięciem zawodowym (stresem) i deklarowaną motywacją. W badaniu wykorzystano kwestionariusz ankiety internetowej. Próba badawcza składała się z 90 osób (100% kadry pracowniczej). Głównym wnioskiem wynikającym z badań jest to, że mało kto nie doświadcza stresu w miejscu pracy. Jest to istotne spostrzeżenie, które podkreśla powszechność występowania tego zjawiska. Oczywiście nie zawsze jest to poziom dysfunkcyjny. Zauważyć jednak należy, że co piąty pracownik jest nim dotknięty w sposób poważny. Badani wykazali umiarkowany poziom swojej motywacji zawodowej. Większość personelu koncentruje się na obowiązkach zawodowych i dostrzega swoje zaangażowanie, ale praca nie jest ich pasją. Stwierdzono negatywną korelację między poziomem stresu a motywacją zawodową. Istnieje także różnorodność w sposobie, w jaki stres wpływa na motywację. Zależnie od płci, wieku, dochodów i pozycji zawodowej pracowników relacja ta jest wyraźnie odmienna. Mężczyźni wykazują większą podatność na spadek motywacji w sytuacjach stresowych w porównaniu z kobietami. Ponadto osoby na stanowiskach kierowniczych wykazują słabszą korelację między stresem a motywacją, czyli ich motywacja nie jest tak mocno powiązana ze stresem, jak w przypadku pracowników na niższych stanowiskach. Podobnie relacja ta kształtuje się w przypadku osób starszych w stosunku do osób młodszych oraz lepiej zarabiających w stosunku do osób gorzej wynagradzanych.

Introduction

Today's working environment poses many challenges for organisations in terms of stress management and employee motivation. Understanding the relationship between these aspects is key to effective human resource management.

Stress is experienced by employees, regardless of their job or position. People affected by stress often feel a lack of job satisfaction, do not enjoy performing their duties and, over time, may become dismissive of their work. The symptoms of stress and the reactions to them are highly individual. Stress reactions vary in intensity between people due to a number of factors, such as life experiences, lifestyle, personality or social interactions (Liszkova, 2020, p. 287, 288). Occupations characterised by high levels of occupational stress often involve

intensive intellectual work, require frequent interpersonal interactions, high levels of responsibility and are emotionally engaging (Humeniuk, 2017, p. 293-295).

The main objective of this article is to present the complexity of phenomena such as workplace stress and employee motivation and to identify the relationship between these variables. The sources of data are the literature on the subject and the primary research conducted on a sample of employees of a public institution, operating in the local government sector, such as a town hall.

It is primarily a review article summarizing the current state of knowledge in a given research area, supported to a small extent by empirical research including a case study.

Literature Review

Stress

Stress is a set of specific and unspecified reactions to situations that disrupt the body's equilibrium and pose serious challenges, often exceeding the individual's ability to cope with stress (Szczygieł, 2020, p. 313; Skoczek *et al.*, 2020, p. 94; Gajda & Biskupek-Wanot, 2020, p. 84). Basket (2018, p. 42) understands stress as an ambivalent mental state or 'emotional reaction' that arises from negative stimuli, called stressors. Stress arises from situations or events that conflict with the need to survive (Hobfoll, 2006, p. 43, 44).

Occupational stress is one of its specific varieties. Occupational stress results from the interaction between the employee and the work environment and consists of both social and physical factors. The social aspects of this stress include the climate among employees, the way work is organised and the amount of pay the employer offers. From a physical perspective, working conditions such as noise levels, ambient temperature and the availability and quality of workplace equipment also contribute to occupational stress levels (Piernikowska & Podsiadły, 2019, p. 3). Stress can result from a variety of factors, such as excessive pressure, interpersonal conflicts or workload.

Psychosocial risks and work-related stress are among the main challenges in the field of occupational health and safety, as they have a significant impact on the health of individuals and the health of enterprises. A good working environment makes it possible to promote improved productivity, personal development and the physical and mental wellbeing of employees. A certain amount of stress is required to motivate an individual to perform or to help maintain productivity and challenge at work (Setyo *et al.*, 2020, p. 924).

Around half of European workers believe that stress is common in the workplace and is responsible for almost half of all lost working days. Stress and mental health problems are the most serious health problems experienced in the workplace for about one fifth of workers in the European Union. About two-thirds

of them are exposed to serious psychosocial problems (Ostrowska & Michcik, 2014, p. 89). In addition to mental health problems, workers exposed to prolonged stress may develop serious physical health problems such as cardiovascular disease or musculoskeletal disorders (Michantez *et al.*, 2015, p. 99). Businesses are also not well served by stress. For businesses, the negative effects can be low overall profitability, increased absenteeism and increased accidents and injuries. Work-related stress can contribute to higher rates of early retirement. Long-term job stress and poor quality of life, can lead to the development of job burnout. Lack of effective methods to manage stress at work can cause the problem to become chronic and increase the risk of disease (Vidotti *et al.*, 2019, p. 367, 368).

By adopting the right approach, psychosocial risks and work-related stress can be effectively prevented and managed, regardless of the characteristics or size of the workplace, and addressed with the same logic and systematic approach as other health and safety issues (Harasim, 2018, p. 66).

Motivation

Motivation is the process that is responsible for an individual's intensity and persistence in pursuing a goal (Neta & Haas, 2019, p. 1). Employee motivation is a concept that refers to the factors that stimulate employees to perform better and perform their duties in a more efficient and committed manner (Hysa & Grabowska, 2014, p. 326). Motivation encompasses the biological, emotional, social and cognitive forces that activate behaviour. It is the driving force behind human actions (although it is rarely directly observable). It is often necessary to infer the reasons why people do what they do from observable behaviour (Knap-Stefaniuk *et al.*, 2018, p. 188-192). The literature portrays motivation as a concept deeply rooted in the human psyche and a key factor influencing people's decisions and actions (Baka & Basinska, 2016, p. 17).

Motivation plays an extremely important role in the dynamic functioning of businesses, being a key factor influencing efficiency, creativity and innovation in the workplace. A high level of employee motivation translates directly into employee commitment and a willingness to put in extra effort for the good of the organisation. Employees who experience strong motivation not only present a higher level of performance on assigned tasks, but also show a greater willingness to take on new challenges. Their enthusiasm translates into active involvement in the company's development processes. Strong motivation stimulates the search for new solutions and process improvement. In addition, employees with a high level of motivation are more likely to cooperate, form effective teams and exchange ideas. Creating an atmosphere of cooperation, mutual understanding and support can contribute significantly to job satisfaction. Employees who experience positive team relationships are more likely to share knowledge, help each other and collaborate effectively (Rudzewicz, 2017, p. 293-296). Motivated

individuals see every new initiative as an opportunity for personal growth. Therefore, taking care of effective employee motivation becomes a strategic element of personnel management, influencing the long-term development of the company (Kozłowski, 2020, p. 205-213; Michalik, 2009, p. 376). In turn, a lack of motivation can lead to a decline in morale, increased absenteeism and lower productivity (Snopko, 2014, p. 103).

Methodological Assumptions of the Study

The subject of this research focuses on the analysis of tension levels and employee motivation. The research proceedings were conducted on the example of employees of a local government institution (city hall) in north-eastern Poland. The town hall was purposively selected and is located in north-eastern Poland. This office is headed by a mayor. The subjectively selected sample unit in a non-probabilistic manner involved obtaining consent to the study from both the mayor and the office staff. The analysis is based on a case study without the possibility of generalising the results obtained.

The main objective of the research is to determine the relationship between stress at work and motivation in the work environment (specificity of the municipal office). In pursuit of the main objective, the following research procedure was adopted:

1. Identifying stress levels in the workplace.
2. Determining the level of employee motivation.
3. Identify the relationship between stress and employee motivation (taking into account the variation in these).

A seven-point Likert scale was used to measure stress and motivation. The results were then subjected to correlation analysis to verify any potential relationship between them. Additionally, as part of a deeper understanding of the stress and motivation phenomenon, attention was paid to the most stressful situations at work and symptoms of experienced stress and manifestations of motivation.

The survey was conducted in July 2023 among all employees of the selected city hall. Each employee received a card with a link to the survey, also in the form of a unique QR code. Transcribing the link or scanning the code with a mobile device automatically took the surveyed employees to the actual survey posted online. There were 90 employees in the surveyed office and it appears that each of them answered the questionnaire. The procedure adopted ensured anonymity.

Analysing the data, it is noted that 34% of the respondents were aged 20-30, indicating a significant presence of the younger generation among the workers surveyed (Tab. 1). In addition, 27% of the respondents were between 31-40 years old, another 27% were workers between 41-50 years old and 12% were over

Table 1

Characteristics of respondents

Criterion	Variables	Percentage share [%]
Gender	woman	84
	man	16
Age [years]	under 30	34
	31-40	27
	41-50	27
	over 50	12
Earnings [PLN]	under 3,000	21
	3001-4000	50
	over 4,000	29
Position	clerk (specialist)	86
	manager	14

Source: own elaboration.

50 years old. In the survey, the majority were women with an impressive percentage of 84%. Among the employees, those in clerical (specialist) positions predominated with 86%. Managerial positions were held by 14% of respondents. Respondents' incomes varied, with a dominant range between 3,000 and 4,000 PLN net per month (50%).

Research Findings – Relationship between Stress and Motivation

Measurement of stress

Respondents were asked to identify the most stressful situations or tasks in their work. The rating scale ranged from 1 to 7 points, where 1 meant that the situation was not stressful at all and 7 meant that it was very stressful. Participants were given the opportunity to express a subjective evaluation regarding various aspects of their work.

The study found that one of the most stressful factors is the short time available to complete specific tasks, which was rated at 3.73 points. Not having enough time can limit the ability to focus on tasks and result in a lower quality of work completed. Next, a bad team atmosphere was listed as another stressful factor, rated at 3.48 points, which can lead to conflicts between employees, lack of cooperation and a decrease in work motivation. Another important aspect is the need to carry out many tasks at the same time (3.54 points), which leads to an excessive workload and difficulties in maintaining concentration. Taking work

home is also an unpleasant element. Other circumstances rated below 3 points are already more acceptable, although they are not entirely comfortable, such as public speaking or employee appraisal. However, they are accompanied by a not very high level of stress. The presented scores show that even the most stressful circumstances are not a stressful problem. The highest scores are roughly around the middle of the adopted scale. All these data are presented in Figure 1.

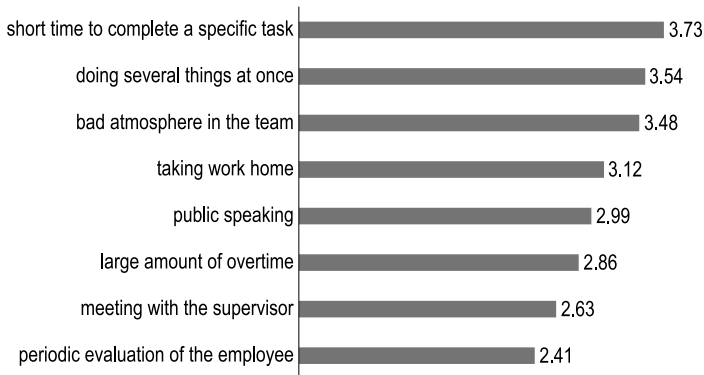


Fig. 1. The most stressful situations at work

Source: own survey.

Analysis of stress symptoms among respondents shows that stress can have a variety of mental and physical health consequences. Irritability and nervousness were the most frequently reported symptoms, affecting up to 67% of survey participants (Fig. 2). These are typical reactions to stress, which can lead to increased emotional tension. Headache is experienced by 60% of respondents, sleep problems are reported by 43% of study participants. Difficulty concentrating is experienced by 38% of respondents. Bad mood is reported by 36% of participants. The impact of stress is multidimensional, manifesting itself in both the mental and physical spheres. It is noted that two thirds of employees experience various ailments often related to stress. This confirms that stress in the workplace is not just a theoretical phenomenon.

An analysis of the respondents' stress levels revealed wide variations in how they felt. Several percent (16%) of respondents described their stress level as very low at 1 and 2 points. (Fig. 3).

Next, 57% of respondents rated their experience of stress at 3-5 points, indicating moderate stress. They experience some degree of stress, but it is not yet very intense or dangerous. A group of 27% of respondents estimated their stress at a high level (6-7 points). This suggests that one in four employees experience quite high or even very high stress in the workplace. For them, stress

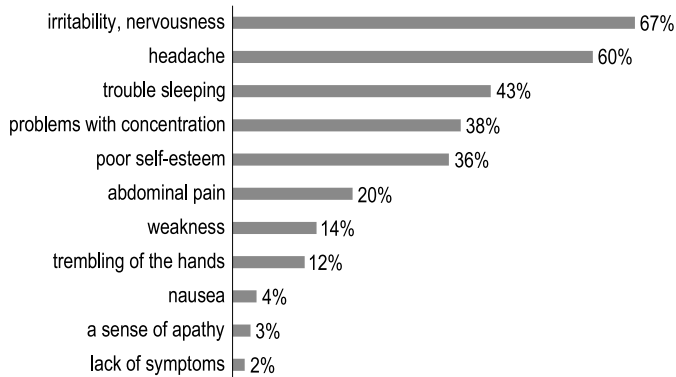


Fig. 2. Main symptoms of perceived stress
Source: own survey.

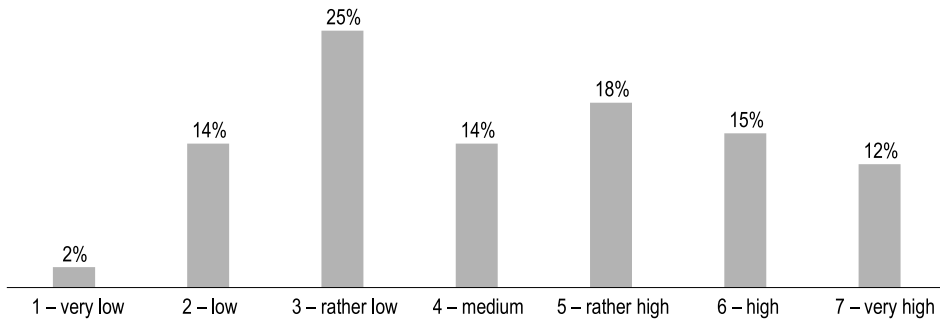


Fig. 3. Declared stress level
Source: own survey.

can be strongly felt, as well as being a significant factor affecting their daily functioning and wellbeing both inside and outside of work.

Representing the problem in terms of central tendency, the arithmetic mean of 4.23 points in the stress assessment suggests a moderate level of stress.

Measuring motivation

Motivation was also rated on a seven-point scale, as was stress. The employees surveyed showed a high level of focus on the performance of their daily job duties, as evidenced by a score of 4.12 (Fig. 4). It is noteworthy that the respondents express a certain degree of dedication to their work (3.74 points). An interesting observation is the respondents' perception that time at work passes quickly (3.51 points), which may mean that they are preoccupied with their tasks and are additionally accompanied by job satisfaction (3.21 points). The other variables with scores below 3 points are unlikely to be manifestations of clear commitment

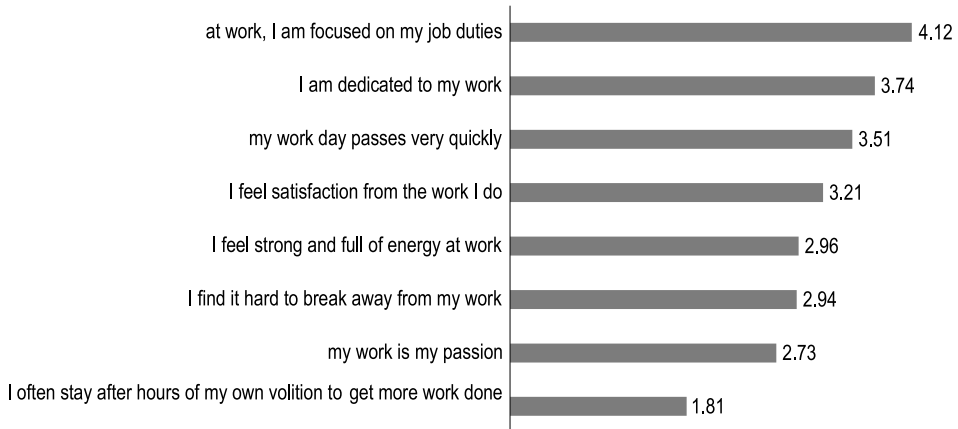


Fig. 4. The manifestation of motivation at work

Source: own survey.

to work. Respondents declare their feeling of involvement of strength and energy in their work at an average level (2.96 points). Working at the office is not a passion and it seems that employees are reluctant to stay at work after hours of their own accord. Apart from one criterion describing motivation, the other scores are at most around the middle of the possible scale.

The results of the survey show the respondents' varying attitudes towards their motivation at work (Fig. 5). Almost one fifth of the respondents, i.e. 19%, rated their level of work motivation as high or very high (6-7 points). On the other hand, there is also a group of people (14% in total) who rate their level of motivation as low or very low (1-2 points). It is worth noting that 67% of respondents rate their level of motivation as average (3-5 pts). Using the central measure, the arithmetic mean of the assessment of the level of motivation ranks at 4.19 points. Such a result suggests a moderate approach to motivation.

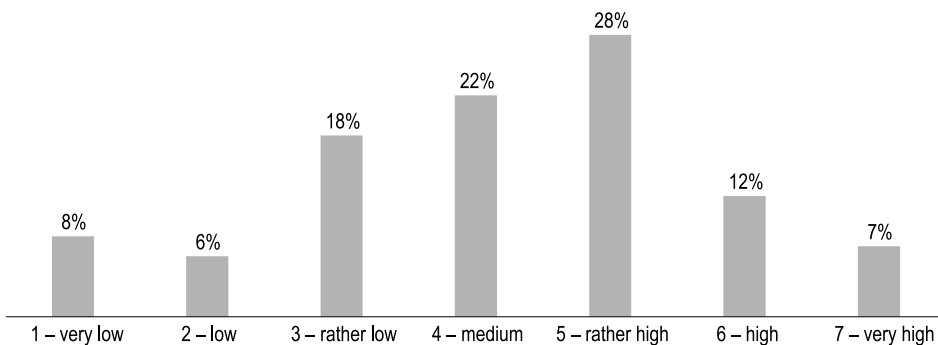


Fig. 5. Declared level of motivation

Source: own survey.

Relationship between stress and motivation

A correlation coefficient was used to examine the relationship between the assessment of stress levels and the assessment of motivation levels among employees. The result of -0.27 among all employees suggests that there is a negative relationship between stress levels and motivation levels among employees. This means that an increase in stress levels is associated with a decrease in motivation levels.

It is worth looking at this relationship by different employee groups. The correlation coefficient values show a weak relationship for women (-0.21) and a moderate one among men (-0.52), suggesting that gender may be an important factor in the relationship between stress and motivation (Tab. 2). When faced with stress, men experience a decrease in work motivation to a greater extent than women.

Turning to the issue of age, what stands out is that young workers (up to 30 years old) react to stress with a decrease in motivation to a greater extent (-0.44) than older workers. In contrast, among the oldest workers (over 50 years), the relationship between stress and motivation was only -0.18 (correlation).

An examination of the correlation between stress ratings and motivation levels in different occupational contexts, revealed that for managers the coefficient was -0.07, while for desk officers it was -0.31 (Tab. 2). The difference is again marked. The values obtained suggest a weak unfavourable correlation between stress level and motivation among managers and a moderate unfavourable correlation for clerks. Consequently, for clerks, escalating stress levels are more associated with a decrease in motivation levels compared to those in managerial positions.

Table 2

Correlation coefficients between stress and employee motivation

Employees		Correlation value
Overall		-0.27
Gender	women	-0.21
	men	-0.52
Age [years]	under 30	-0.44
	31-40	-0.22
	41-50	-0.32
	over 50	-0.18
Earnings [PLN]	under 3,000	-0.44
	3,001-4,000	-0.30
	over 4,000	-0.06
Position	managers	-0.07
	references	-0.31

Source: own research.

The final area of analysis concerned net monthly earnings. Those with the highest incomes (over 4,000 PLN) do not show an excessive decrease in motivation due to stress (correlation -0.06). The situation is different in the group of the lowest paid employees (under 3,000 PLN), where the correlation studied is moderately high (-0.44).

There seems to be some convergence in the results obtained. Older, better paid people in higher positions who have reached a strong professional position do not easily succumb to stress and it does not shape their motivation. Less experienced people may be more sensitive to stressful situations, which translates into their degree of motivation or discouragement.

Summary and Final Conclusions

Stress is an intrinsic part of every person's life, representing the body's response to a variety of situations that require adaptation or coping with difficulties. The essence of stress is its dynamic nature, which mobilises the body to respond actively to challenges and to adapt in the face of a changing environment. In practice, this means that stress can occur both in positive situations, which stimulate action, and in negative situations, which cause tension and discomfort. The essence of stress also lies in its potential effects on an individual's mental and physical health, which can manifest in a variety of ways, from muscle tension and difficulty concentrating to problems with sleep or negative emotions.

The results of research on motivation and stress in the work environment shed light on a number of important aspects of staff functioning. The main finding of the research is that, few people do not experience stress in the workplace. This is an important observation that highlights the prevalence of this phenomenon in the workplace. Of course, it is not always at a dysfunctional level.

An analysis of staff motivation levels suggests that the majority of staff are focused on their job duties and recognise their commitment. However, there is a group of staff who rate their level of motivation as low or very low. Perhaps these are individuals who are accompanied by excessive stress.

A negative correlation was found between stress levels and occupational motivation. There is also variation in the way stress affects motivation. Depending on the gender, age, income and occupational position of employees, the relationship is clearly different. Men show a greater susceptibility to decreased motivation in stressful situations compared to women. Furthermore, the results confirm that those in managerial positions show a weaker correlation between stress and motivation, i.e. their motivation is not as strongly linked to stress as employees in lower positions. Similarly, the relationship is for older versus younger people and higher earners versus lower earners.

The relationship between stress and motivation is complex and multidimensional. When stress levels are moderate, it can act as a motivational stimulus, spurring employed staff to perform and achieve their goals. However, when it becomes chronic or excessive, it can negatively affect the employee's level of engagement by increasing feelings of fatigue, helplessness or loss of interest in their work.

In conclusion, the study found that there is a weak but clearly negative correlation between stress and motivation in the workplace, suggesting that stress reduction has a positive impact on staff motivation. The introduction of stress reduction programmes and the regular monitoring and effective management of staff stress and motivation levels may be key to maintaining a positive workplace atmosphere and ensuring staff satisfaction, which will certainly benefit the organisation.

The limitation of the article is that there is only one research subject (city hall) and a limited number of staff. The results obtained should be regarded as a pilot study that needs to be expanded to include a larger number of entities, including commercial ones. The collected material should be subjected to in-depth statistical analysis.

Translated by Author

References

- Baka, L., & Basińska, B.A. (2016). Psychometric Properties of the Polish Version of the Oldenburg Occupational Burnout Questionnaire (OLBI). *Occupational Medicine*, 67(1).
- Gajda, E., & Biskupek-Wanot, A. (2020). Stres i jego skutki. In A. Biskupek-Wanot, B. Wanot, & K. Kasprowska-Nowak (Eds.). *Aktywność fizyczna i problematyka stresu*. Częstochowa: Wydawnictwo Naukowe Uniwersytetu Humanistyczno-Przyrodniczego im. Jana Długosza. <http://dx.doi.org/10.16926/afips.2020.07>.
- Harasim, K. (2018). Stress in High-Risk Occupations. *Humanum. International Social and Humanistic Studies*, 28(1).
- Hobfoll, S.E. (2006). *Stress, Culture and Community. The Psychology and Philosophy of Stress*. Gdańsk: GWP.
- Humeniuk, E., Dąbska, O., Pawlikowska-Łagód, K., & Bytof, B. (2017). Level of Professional Stress among Teachers. *Chowanna*. Katowice: University of Silesia Publishing House.
- Hysa, B., & Grabowska, B. (2014). Motivation System of Public Administration Employees on the Basis of a Selected ZUS Unit. *Zeszyty Naukowe Politechniki Śląskiej. Organisation and Management*, 74.
- Knap-Stefaniuk, A., Karna, W.J., & Ambrozová, E. (2018). Motivating Employees as an Important Element of Human Resource Management – Challenges for Public Education. *Scientific Quarterly of Vistula University*, 2(56).
- Koszyk, R. (2018). *Radzenie sobie ze stresem studentów uprawiających sport wyczynowo*. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.
- Kozłowski, W. (2020). Employee Motivation as an Element of the Development Process in an Enterprise. *Olsztyn Economic Journal*, 15(3). <https://doi.org/10.31648/oej.6539>.
- Lizzkova, M. (2020). Psychological Aspects of the Teaching Profession. *Polonia Journal*, 12.

- Michalik, K. (2009). Typology of Motivation Factors. *Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie*, 13(2).
- Mitanchez, D., Zyzdorczyk, C., Siddeek, B., Boubred, F., Benahmed, M., & Simeoni, U. (2015). The Offspring of the Diabetic Mother – Short- and Long-Term Implications. Best Practice & Research. *Clinical Obstetrics & Gynaecology*, 29(2).
- Neta, M., & Haas, I.J. (2019). Movere: Characterizing the Role of Emotion and Motivation in Shaping Human Behavior. In M. Neta, & I.J. Haas (Eds). *Emotion in the Mind and Body. Nebraska Symposium on Motivation*, vol. 66. Cham: Springer. https://doi.org/10.1007/978-3-030-27473-3_1.
- Ostrowska, M., & Michcik, A. (2014). Stress at Work – Symptoms, Consequences, Prevention. *Occupational Safety: Science and Practice*, 5.
- Piernikowska, A., & Podsiadły, D. (2019). *Strategies of Coping with Stress in the Opinion of Nurses*. Włocławek: Państwowa Akademia Nauk Stosowanych.
- Rudzewicz, A. (2017). Trust in the Enterprise – Meaning and Measurement. *Journal of Management and Finance*, 15(2/1).
- Setyo, Y.B., Wulal, P., & Redan, W.B. (2020). Stress and Performance of Elementary School Teachers of Southern Papua: A Survey Approach. *Universal Journal of Educational Research*, 8(3).
- Skoczek, M., Kuberski, M., Biskupek-Wanot, A. (2020). Occupational Stress. In A. Biskupek-Wanot, B. Wanot, & K. Kasprowska-Nowak (Eds.). *Physical Activity and Stress Issues*. Częstochowa: Scientific Publishers of the Jan Długosz University of Humanities and Sciences. <http://dx.doi.org/10.16926/afips.2020.08>.
- Snopko, J. (2014). Modern Motivational Systems of Employers and Employees. *Prace Naukowe Akademii im. Jana Długosza w Częstochowie. Pragmata Tes Oikonomias*, 8.
- Szczygieł, M. (2020). Stres w pracy nauczyciela – wybrane uwarunkowania. *Culture – Society – Education*, 2(18).
- Vidotti, V., Martins, J.T., Galdino, M.J.Q., Perfeito Ribeiro, R., & do Como Cruz Robazzi, M.L. (2019). Burnout Syndrome, Occupational Stress and Quality of Life among Nursing Workers. *Entermeria Global*, 18(3), 344-376. <https://doi.org/10.6018/eglobal.18.3.325961>.

