

# OCCUPATIONAL STRESS AMONG SLOVENE MANAGERS WITH RESPECT TO THEIR PARTICIPATION IN RECREATIONAL SPORT ACTIVITIES

## STRES NA DELOVNEM MESTU PRI SLOVENSKIH MANAGERJIH GLEDE NA UDELEŽBO PRI ŠPORTNIH DEJAVNOSTIH

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### Abstract

**Objective:** The aim of this study was to determine the level of stress that managers experience at workplace, and to determine possible differences between the selected independent variables, including gender, age and participation in recreational sports, and the level of occupational stress experienced.

**Methods:** We studied a sample of 85 managers from randomly selected Slovene companies. The data obtained were processed by the SPSS computer programme and analysed by the following statistical methods: descriptive statistics and frequency distribution for variables; t-test to examine the statistical significance of differences between the genders concerning the experience of stress symptoms; and ANOVA to examine statistical significance of differences between age groups and physical activity of groups in terms of stress symptoms. All our statistically significant conclusions were drawn at a 95% confidence interval.

**Results:** The participants assessed their work-related stress as moderate. There were no statistically significant differences in their experiencing of occupational stress with respect to the selected socio-demographic variables, i.e. gender and age. However, the participating managers differed significantly in two variables, i.e. participation in recreational sports activities and experience of occupational stress. The lowest level of stress was experienced by managers practicing recreational sports at least three times a week, and the highest in those not engaged in any recreational sports activities.

**Conclusion:** Managers who often experience stress need to adopt healthier, more physically active, lifestyles.

**Key words:** managers, organization, stress, sports activity

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### Izvleček

**Namen:** Ugotavljali smo stopnjo stresa, ki ga managerji doživljajo pri svojem delu, identificirali stresorje, ki delujejo na delovnem mestu managerja, ter ugotavljali morebitne razlike med izbranimi neodvisnimi spremenljivkami (spol, starost, udeležba pri športnih dejavnostih) in doživljanjem stresa pri managerjih, povezanega z delom.

**Metode:** V raziskavo smo vključili 85 managerjev naključno izbranih slovenskih podjetij. Podatki so bili obdelani s pomočjo statističnega programom SPSS za Windows. Uporabljene so bile naslednje statistične metode obdelave podatkov: deskriptivna statistika ter frekvenčna porazdelitev za spremenljivke, t-test in enosmerna analiza variance za preverjanje statistične pomembnosti razlik med izbranimi neodvisnimi spremenljivkami in doživljanjem z delom povezanega stresa. Vse statistično značilne zaključke smo sprejemali pri 5-ostotnem tveganju.

**Rezultati:** Managerji, udeleženi v raziskavo, v povprečju ocenjujejo svoje delo kot zmerno stresno. Prav tako je bilo ugotovljeno, da ne obstajajo statistično značilne razlike v doživljanju z delom povezanega stresa glede na izbrane socio-demografske spremenljivke – spol in starost. Statistično pomembne razlike se pojavljajo pri doživljanju z delom

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*povezanega stresa ter udeležbo pri športnih dejavnostih. Najnižja stopnja stresa se pojavlja pri managerjih, ki se ukvarjajo s športno dejavnostjo najmanj trikrat tedensko, najvišja stopnja stresa pa se pojavlja pri tistih managerjih, ki se s športno dejavnostjo ne ukvarjajo.*

**Zaključek:** Pri managerjih, ki pogosto doživljajo stres, je potreben bistven premik k bolj zdravemu življenjskemu slogu, ki vključuje več gibanja.

**Ključne besede:** managerji, organizacija, stres, športna dejavnost

## 1 Introduction

### 1.1 Stress

The term »stress« is derived from the Latin word »stringere«. It was adopted in English in the 17th century to describe hardship, pressure, torment and difficulties. The meaning of the word changed during the 18th and 19th centuries and gained a new meaning: a force or pressure affecting an object or a person. The new definition implies that stress occurs when forces from the outside world arouse tension in an object while the object tries to retain intangibility by drawing on the force's power (1). In the professional literature, we can find various definitions of stress, the most common being that stress is a physical and psychological strain of human organism which occurs as an adaptive body response to environment stimuli (2-4) expressed through diverse symptoms, such as headache, physical and psychological exhaustion, lack of energy, anxiety, nervousness, tension, irritability, concentration problems, decreased productivity and work quality (5-8).

Stress is frequently regarded as the most common disease of the modern age. It is a pattern of negative physiological states and psychological responses that occur in an individual. When stressed, the individual feels that his well-being is being menaced, but he is unable to cope with it (9, 10). Stress is an internal response of an individual to an outside world situation or event – a stressor – that affects him. People perceive stressors and respond to them in different ways. Moreover, they vary largely in how difficult they find stress and stressors to cope with. Some people cope better/worse with certain stressors; this depends on one's personality, experience, energetic fitness, life environment and the circumstances under which the stressor occurs. Other significant factors include life orientation and firmness, and quality of one's interpersonal relations in society (11).

Stress occurs in an individual who is overloaded and whose psychological and social needs exceed

the normal level as a consequence of physical handicap and/or chronic illness or critical life events. Body responds to stress in different ways, either emotionally by anger, depression or aggressiveness, or mentally by irritation of autonomous emotional system (12).

### 1.2 Managerial stress

Nowadays, most people hypothetically believe that company managers are the most affected group in terms of stress experience. Managerial stress may be a disease resulting from extreme careerism (7). However, despite their risky behaviour, managers are role models to many other professionals. Managers are heavily overloaded with various tasks and in turn held responsible for their decisions. All this requires constant attentiveness and may finally lead to unbearable stress. They may experience symptoms like insomnia, anxiety, fatigue, or even a serious illness, such as high blood pressure, angina pectoris or myocardial infarction. Infarction, classified as a managerial disease, is a very frequent disease among managers. International Labour Organization recommends classifying stress-related diseases as occupational diseases.

Managers expect their work to be recognized and they need to prove themselves. They strive to be competitive, but in their effort to stay competitive, they may suffer from stress. If they fail to become successful, they often try to disguise the truth. Such situation may consequently lead to depression. They may become apathetic and tend to lose enthusiasm and self-respect. While under stress, they are frequently convinced that they are experiencing symptoms of physical illness, and they most often try to relieve their tension by drinking alcohol in order to brighten their reality (13).

Managers in different countries perceive similar workplace stressors, as demonstrated by a comprehensive international comparative study of occupational stress that collected data for 1065 managers in ten countries (from five continents): Brazil, Great Britain, Egypt, Germany, Japan,

Nigeria, Singapore, South Africa, Sweeden and the United States. The most frequently listed workplace stressors, reported by 55% of all respondents, were time pressure and tremendous work overload. Other frequent workplace stressors included long working hours, attending meetings, the conflict between work and family life, and social relationships (7).

### 1.3 Psychological benefits of physical activity in preventing stress

In most cases, the causes of stress cannot be prevented, but the consequences may be overcome by using different methods. A very efficient way to improve one's well-being is to be physically active. Several studies have shown that good mental health is closely related to physical activity. This does not mean that individuals practising sports do not have to cope with stress; physical activity is known to reduce the effects of daily stresses. People who regularly participate in sports activities and thereby maintain their physical fitness are less exposed to negative consequences of stress. Regular sports activity reduces anguish and increases one's capability to cope with the causes of anxiety and depression more efficiently. It also significantly improves one's well-being (14). Sports activity also has a positive effect on sleep. Various studies have shown that sufficient rest is indispensable for regeneration and recovery of one's physical and mental abilities, moreover, sufficient rest has a positive effect on one's mood and emotional state (14,15).

By being engaged in physical activity, one can learn how to be relaxed naturally. Muscle tightness or stiffness, which is often related to a feeling of unpleasant inner tension, aggravates relaxed deliberation or reflection and spontaneous experiencing (16).

Physical/sports activity increases self-confidence, ability to assert oneself appropriately, emotional stability, independence, ability to direct intellectual functions, positive mood, self-control, work efficiency, and ability to cope with stress and direct a healthy aggressiveness.

Physical/sports activity decreases indisposition, unhealthy habits, anguish, depression, mistakes at work, fatigue and passivity (4).

### 1.4 Research hypotheses

H1: Managers experience high level of stress related to their profession ;they evaluate their profession as very or extremely stressful.

H2: There are statistically significant differences between occupational stress experienced by managers and the selected socio-demographic variables, including gender, age and participation in sports activities.

## 2 Methods

### 2.1 Profile of subjects

Our sample included 85 managers, 43 women and 42 men, employed in randomly selected Slovene companies.

### 2.2 Measures

For the purpose of our research a questionnaire "Occupational Stress Load of Managers" was designed. For the second and third questions the 5-point Likert scale was used. The questionnaire is a simple indicator of the amount of stress that managers experience in their work environment.

The questionnaire consists of the following three parts:

1. The participants' sociodemographic data;
2. Questions related to self-assessment of the level of stress

Managers assessed them on a 5-point Likert scale twice, i.e. in relation to:

- frequency of their occurrence – on the scale from 'never' (1) to 'very frequently' (5);
- 3. List for identifying the managers' sport activities and questions about the frequency of engaging in sport activities.

### 2.3 Procedure

The data were processed using the SPSS computer programme. The following statistical methods were used for data analysis:

- descriptive statistics and frequency distribution - for variables,
- t-test - to examine statistical significance of the differences between the genders in terms of stress symptoms,
- ANOVA - to examine the statistical relevance of the differences between age groups and physical activity of groups in terms of stress symptoms.

All statistically significant conclusions were drawn at a 95% confidence interval.

### 3 Results

#### 3.1 Descriptive statistics

Our study included 85 managers, 43 women and 42 men, from randomly selected Slovene companies. The survey results revealed that the 31-40 year age group was the largest in our sample (49.4%), followed by the group of 41- 50 years (34.1%) and the group of less than 30 years (16.5%).

The highest proportion (92.9%) of the managers sampled reported higher education; 41.2% of managers involved in our research had completed 11- 20 years of service, 27.1% , 6 -10 years of service, and the rest more than 20 years. or less than six years of service.

Most managers involved in our study are employed in companies with 51 to 250 employees, and in companies with more than 251 employees (altogether 68.2%). The majority of managers work in the service sector (32.9%), and the lowest number (4.7%) in health and education institutions. In addition to regular work, 49.4% of the participants carry out extra work obligations.

#### 3.2 Tests of hypothesis

The first hypothesis stating that managers experience high levels of occupational stress (they evaluate their profession as very or extremely stressful), was tested by the structural ratio of answers shown in Table 1.

The second hypothesis stated that there are statistically significant differences between managers in experiencing occupational stress related to the selected socio-demographic variables, including gender, age and participation in sports activities. The t-test and one-way analysis of variance were used to determine the statistical significance of differences between the selected independent variables. The results are shown in Tables 2 and 3

The t-test showed that the difference related to gender was not statistically significant at a 95% confidence level ( $p > 0.05$ ), (statistical power=1.27).

Differences in experiencing occupational stress between different age groups were determined by one-way analysis of variance. No statistically significant differences between age groups were found at a 95% confidence level ( $p > 0.05$ ).

Table 1. *The structural ratio of answers to the question about the stress level experienced by managers (while pursuing their career).*

Tabela 1. *Strukturno razmerje odgovorov na vprašanja o stopnji stresa , ki ga doživljajo managerji (v svoji poklicni karieri).*

	Frequency pogostnost	Percentage odstotek	Cumulative percentage kumulativni odstotek
<b>Completely unstressful</b> <i>Povsem nestresno</i>	0	0.0	0.0
<b>A bit stressful</b> <i>Nekoliko stresno</i>	10	11.8	16.5
<b>Moderately stressful</b> <i>Zmerno stresno</i>	52	61.2	77.6
<b>Very stressful</b> <i>Zelo stresno</i>	14	21.2	94.1
<b>Extremely stressful</b> <i>Izredno stresno</i>	5	5.9	100.0
<b>Total</b> <i>Skupaj</i>	85	100.0	

Table 2. *Results of one-way analysis of variance used to identify differences between age groups.*  
 Tabela 2. *Rezultati enosmerne analize variance za ugotavljanje razlik med starostnimi skupinami.*

	Sum of squares <i>Vsota kvadratov</i>	Degree of freedom <i>Stopnja prostosti</i>	Square average <i>Poprečje</i>	F	Statistical significance <i>Statistična signifikanost</i>
<b>Between groups</b> <i>Med skupinami</i>	6,286.324	2	3,143.162	1.697	.190
<b>Within groups</b> <i>Znotraj skupin</i>	151,846.782	82	1,851.790		
<b>Total</b> <i>Skupaj</i>	158,133.106	84			

Table 3. *Differences between physically active and physically less active groups determined by one-way analysis of variance.*

Tabela 3. *Razlike med telesno aktivnimi in telesno manj aktivnimi skupinami, določene z enosmero analizo variance.*

	Sum of squares <i>Vsota kvadratov</i>	Degree of freedom <i>Stopnja prostosti</i>	Square average <i>Poprečje</i>	F	Statistical significance <i>Statistična signifikanost</i>
<b>Between groups</b> <i>Med skupinami</i>	6,286.324	2	4,567.896	3.140	.024*
<b>Within groups</b> <i>Znotraj skupin</i>	151,846.782	82	1,953.56		
<b>Total</b> <i>Skupaj</i>	158,133.106	84			

## 4 Discussion and conclusions

Occupational stress has increased to become a major global occupational health issue. World Health Organization monitors with great concern the increase in problems related to occupational stress (17). Work-related stress, with all its consequences, is a widespread disorder in EU member states. According to various studies, managers in the acceding EU member states are exposed to stress and are overloaded with work to a higher extent than their western counterparts. In short, stress in employees has a serious effect on a

company's bottom line because of numerous working days lost due to stress consequences.

The two main aims of the study were to determine the degree of stress that managers experience at workplace, and to establish possible differences between the selected independent variables (gender, age and participation in sports activities) in relation to managers' experience of occupational stress.

The first hypothesis stated that managers experience high levels of work-related stress while pursuing their career and that they found their profession very or extremely stressful. The study results provided



only partial support for the hypothesis: 27.1% of the managers sampled assessed their job as very stressful or extremely stressful, 61.2% as moderately stressful, and 11.8% as slightly stressful.

Occupational stress is frequently associated with repetitive and tedious work, which may result in the employee's frustration and indifference. All this can reduce work effectiveness and in turn increase the rate of faults and occupational accidents. More often, workplace stress occurs as a result of work overload (18). A managerial position and tasks carried out by a manager involve huge workload. On average, the managers sampled perceived their work as less stressful than expected. The reason may be their satisfaction with their job. This observation is in line with the results of previous studies that revealed that specific workplace stress occurs in individuals who do not do the work they would like to do, and can therefore not identify themselves with the work they perform (7).

Differences in the degree of stress that the participants experienced at workplace in terms of the selected socio-demographic variables (gender, age, participation in sports activities) were tested by the t-test and one-way analysis of variance. The study included 85 managers, 43 females and 42 males. On average, the level of stress experienced was 2.68 for women and 2.38 for men. The level of stress was assessed on a 5-point rating scale (1 meaning that stress was perceived as completely undisturbing, 2 as slightly disturbing, 3 as moderately disturbing, 4 as very disturbing and 5 as extremely disturbing). For female managers stress was more disturbing than for men, yet the difference between the genders tested by the t-test was not statistically significant at a 95% confidence level ( $p > 0.05$ ), (statistical power = 1.27). This finding did not support our assumption that women experience a higher level of occupational stress than men. In his study, Burke established significantly higher levels of occupational stress in women than in men (19).

There were no statistically significant differences in the level of experienced occupational stress between the age groups at a 95% confidence level ( $p > 0.05$ ).

Statistically significant differences in the perception of occupational stress with regard to participation in recreational sports activities were found by one-way analysis of variance. There were statistically significant differences at a 95% confidence level ( $p > 0.05$ ) between the groups of managers who were engaged in recreational sports activities one to three times a week, those who practised sports activities more than three times weekly and those who were

never engaged in these activities. A comparison of the groups' arithmetic means in experiencing occupational stress showed that the lowest degree of stress was experienced by managers who practised recreational sports at least three times weekly, and the highest degree by those who were not engaged in any sports activities. These results were expected on the basis of previous studies which showed that mental health indicators are closely related to physical activity, which mitigates the effects of everyday stressors. People who are regularly engaged in sports activities and thus maintain a relatively high level of physical fitness are less prone to negative stress effects (14, 15, 4).

Hypothesis 2, which stated that there were no statistically significant differences between managers as concerns their experience of occupational stress with regard to the selected socio-demographic variables (gender, age, participating in recreational sports activities), was thus partially supported at a 95% confidence level. There were no statistically significant differences between the groups in the first three variables, but they differed significantly in the variable related to recreational sports activities (one to three times a week, more than three times a week, and never).

Employers are obliged to prevent and reduce workplace stressors in their organization, by identifying work-related risk factors for stress. They must identify the most stressful positions in the organisation, and take the necessary measures to prevent damage or avoid loss in compliance with the guidelines issued by the European Agency for Safety and Health at Work. Slovene employers will have to make greater efforts to prevent stress at workplace, especially because many organizations are not yet aware of the extent of the problem and its negative consequences. In order to control stress in their employees, organizations in Slovenia will have to take a number of effective measures, and allocate funds to prevention of occupational stress consequences. It is of utmost importance for the success of a company to involve all employees in planning and realizing the company's objectives.

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