

# Research of labor stress factors in the urban environment: Causes, consequences, prevention

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**Abstract.** Stress is a global problem of modern society. The urban environment creates additional prerequisites for stress, which is confirmed by the study. One of the most common sources of stress is work. In this case, stress is called labour: professional or organizational. These concepts are identical, but there are small nuances in their application regarding the causes of stress. This article analyses the factors of labour stress, its consequences and the possibilities of stress prevention in a modern urban environment. The results of the study of differences in the stress level in different life environments are presented.

**Key words:** Work stress; Stress factors; Urban environment.

## 1 Introduction

The word "stress" in everyday speech is used quite often, mainly when describing the causes of various psychological disorders. Stress is a tense state of the body, which is a protective reaction to various adverse factors. A large number of people who are constantly under stress do not fully realize that this is an abnormal and dangerous phenomenon that needs to be eliminated as quickly as possible. Stress occurs in all aspects of a person's life: in the family, at work, on public transport, in the company of people, etc.

In the general scientific understanding, labor stress is a state of tension of an employee that occurs under the influence of emotionally negative and extreme factors caused by their work.

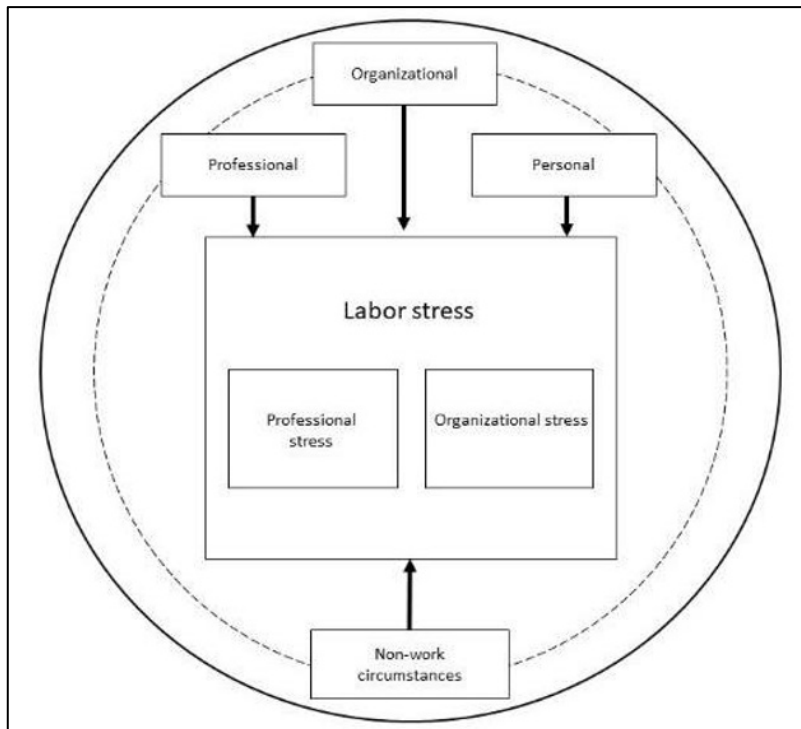
This is the functional state of a working person generated by a combination of various factors and not just the process of performing work tasks. There are also varieties of stress classified by source. One of the most common sources of stress is work. In this case, stress is called labour – professional or organizational. These concepts are identical, but there are small nuances in their application regarding the causes of stress. The concept of work stress is also found in the literature, which, according to the author, is absolutely identical with the concept of work stress.

In this case, work activity acts as a source of stress, and the causes of such stress can be directly related to the process of professional activity and the peculiarities of the ergatic system, as well as to the accompanying circumstances: interpersonal relationships in the

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process of work, management style in the organization, etc. Some authors combine the concepts of professional and organizational stress, attaching organizational causes of stress to general work (professional) [1]. The author's detailed view of the distribution of causes of labor stress and the relationship between the concepts of professional and organizational stress is presented in Fig. 1.



**Fig. 1.** Labour stress.

Work stress, like any other, affects the health of an employee [2]. In addition, and this is the reason that makes it important to manage labor stress, it also affects the employee's performance, and therefore the productivity and quality of their work. At the same time, the influence is not always negative [3].

Stress has both positive and negative effects on a person and his/her health. A positive effect can take place if stress does not have a sharply negative basis and does not take a chronic form. In this case, it serves as a powerful short-term stimulator of active work activity. For example, experiencing acute stress, you can prepare for a difficult control work or complete a large work assignment in a short period of time. If this happened once, and after the stage of increased resistance (resistance), a well-deserved rest came, allowing the body to restore strength and prevent total exhaustion – stress brought exceptional benefits, mobilizing the body and forcing a person to quickly complete an important task.

## 2 Materials and methods

Stress cannot be completely avoided, since to a certain extent any significant event can somehow lead to this state. It is important to learn how to manage stress so as not to lead to its harmful effects.

But in practice, it often happens that stress has a negative effect on the human body [4]. Such stress is called "distress". In everyday speech, the negatively colored word "stress"

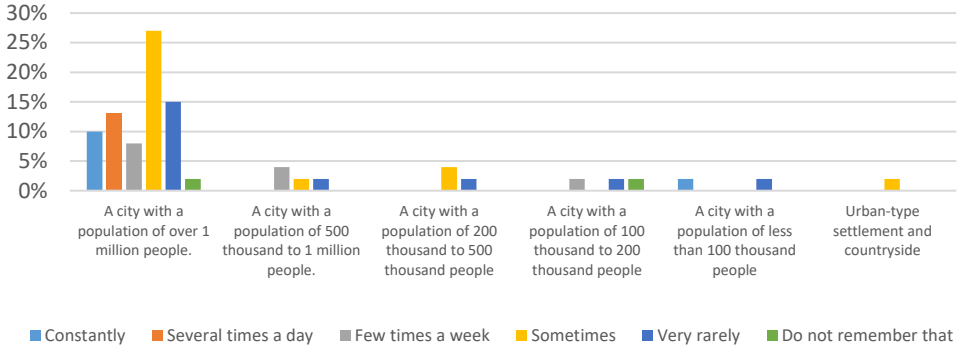
means exactly "distress". Eustress is characterized by a high degree of motivation to work, implies the activation of the processes of thinking and memory, self-awareness, which leads to the effective achievement of work tasks. Distress, in turn, is characterized by pronounced negative emotionality, interest in personal affairs and the predominance of the motive of self-realization, self-affirmation and self-preservation. In case of distress, an employee gets into a psychological state where s/he becomes unable to ensure effective work activity [5]. Frequent repetition of the state of distress entails negative consequences for the health of the employee. Eustress also has an impact on human health, but this effect is short-term, one-time, manifests itself in fatigue after a sharp rise in activity, and in the long term it is not dangerous.

The influence of two groups of factors leads to the occurrence of labor stress in any environment: professional (based on the specifics of work), organizational (related to the specifics of the management system and the team) and personal (related to the personality of the employee) [6]. The list of factors that affect work stress is constantly expanding and changing under the influence of external circumstances. The author highlights the factors presented in Table 1.

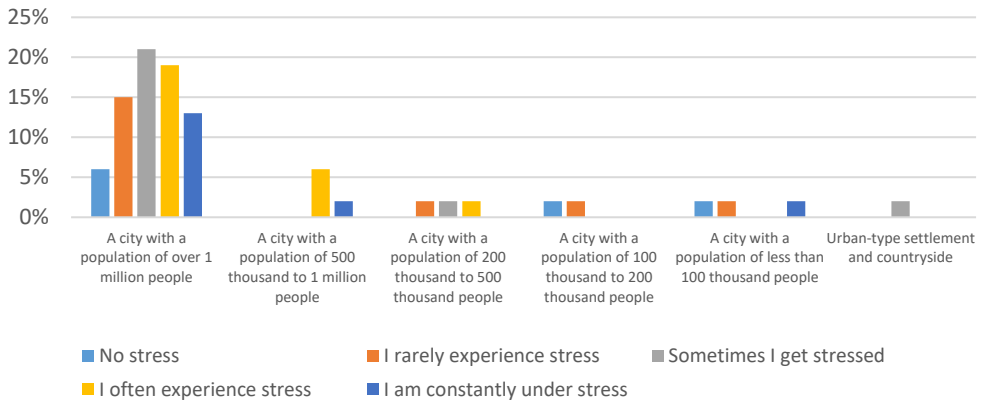
**Table 1.** Work stress factors.

Professional	Organizational	Personal
Intensity of labour activity. Amount of time to complete the task. Occurrence of non-standard working situations. Multitasking. Complexity of tasks. Lack of resources. Unsafe working conditions. Implementation of innovations	Lack of clearly defined tasks. Lack or deficiency of information. Unfair pay. Unfair management attitude. Unfair evaluation of processes and results of work by colleagues. Low professionalism and unmotivated colleagues	Psychological instability. Attention deficit. Low self-esteem. Pronounced emotional lability. External locus of control. Passivity. Personal troubles and tragedies not related to the organization

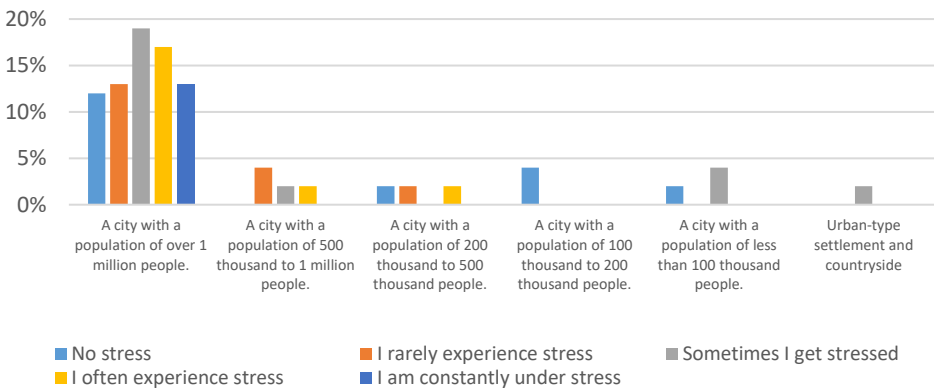
The causes of labour stress are caused by the above factors. The urban environment brings certain features to the life of people [7]. Any habitat is created due to the action of anthropogenic, abiotic and biotic factors. At the same time, each of the groups of factors has an impact on the stress of the inhabitants of this environment. The authors conducted a survey of 980 people living in different habitats. The diagram (Fig. 2) shows the results of this survey, on the basis of which it can be concluded that it is the urban environment that forms the most stressful situation.



**Fig. 2.** What locality do you live in? / How often do you experience stressful situations at work situations?



**Fig. 3.** What locality do you live in? / How stressful can you call your life right now?



**Fig. 4.** What locality do you live in? / How stressful do you think your job is?

The main living conditions in an urban environment that cause such a pronounced increase in general stress are the speed of urban life, urban noise, the need to travel long distances, large crowds of people, high competition in all spheres of life. Based on the data presented in the first graph, we can conclude that people working in large cities are more

likely to be stressed than people working in cities with small cities. Based on the data presented in the second graph, we can conclude that residents of large cities are constantly under stress, which cannot be said about residents of cities with small cities. Based on the data presented in the third graph, we can conclude that people working in large cities more often believe that their work brings them stress, while in cities with a small number of inhabitants this is not the case.

### 3 Results and conclusion

The main negative consequence of stress is its effect on human health [8]. Stress modifies many physiological processes occurring in the body.

This is confirmed by the data of electroencephalograms and electrocardiograms recording the reaction of the heart [9]. In response to stressors, the pupil diameter and galvanic skin reactions also change. The reaction is triggered in the depths of the brain: the hypothalamus and the amygdala (amygdala). In the body, they are responsible for the state of stress [10, 11]. From the point of view of the organization, the main negative consequence of distress is a decrease in labor productivity, a change in the organizational climate and an increase in staff turnover.

To prevent the negative effects of stress, cognitive therapy and regular organization of relaxing activities are recommended for urban residents [12, 13]. Relaxing activities are individually selected activities that contribute to a person's psychological and emotional reboot.

Such activities may include a walk in the fresh air, meeting with friends, reading a book in silence, meditation, visiting SPA treatments, etc. The infrastructure of the urban environment allows organizing such events, conducting personal stress prevention [14]. From the viewpoint of the organization, the prevention of distress among employees is based on leveling professional and organizational factors that affect stress, namely: improving the professionalism of management personnel, informing employees, consistent and gradual introduction of innovations, improving the safety of working conditions, etc. [15].

Work stress is a serious problem of modern society in an urban environment. Carrying out the prevention of a negative form of stress and understanding this problem are important steps towards solving this issue.

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