



Students Scientific Conference

Workplace stress

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Banská Bystrica
2017

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INTRODUCTION

“The greatest weapon against stress is
our ability to choose one thought over another.”

(William James)

I have met a lot of tensed and nervous people in my environment, and I have always been interested in the causes of stress, the reason why it develops and particularly interested in how to help, cure or prevent it. This was the main force, why I chose ,STRESS‘as the topic of my thesis. Stress is nowadays is considered one of the most common health problem our society face with. In my thesis I would like to highlight stress as a negative factor, and evaluate stressors and their impact. Furthermore I will define the concept of stress, and clarify events that can trigger stress, known as stressors. I will present two methods and couple of practical technics to cope with stress. My intention is to point out in greater details the topic of work related stress, especially work stressors. I will discuss task and role-related stressors in the hierarchy within the organization (company). In connection with the stress at work, I would like to draw attention not only to the mental and physical state of the workers, but at the same time outline the impact of work-related stress on the companies. During my research I examined three hypotheses. My brief summary on the subject is that employee's stress levels are too high. Secondly, if stress level is high, the stress handling capacity is low. Finally, the last hypothesis confirms, that students‘s ability of stress tolerance are generally low. These hypotheses were examined with the support of a questionnaire.

1. THE DEFINITION OF STRESS

1.1 The general concept of stress and Janos Selye's theory

The word "stress" is English origin, which means the voltage, pressure. This concept was mainly used in physics in which it was associated with external pressure. In the 20th century this phrase has been taken over by medicine. According to their interpretation stress can mean external conditions on to the body such as strong shocks or internal changes taking place in the body. Definition according to the American Medical Association, Stress is an effect that disturbs physical and mental state of the person. The introduction of the concept of stress is linked to Janos Selye. He defines it as the „non-specific response of the body to any demand of change.“¹His theory suggests that you have to distinguish between good and bad stress. Good stress, also known as eustress, is the self-fulfillment stress. It triggered by activities that are important, or a new challenge for the individual. These stressors have strengthening effect on situations what are surmountable to us. For example, presenting a piano concert or winning a marathon. The artist becomes stressed, because the task is difficult. However when performing the task his skills will develop. Which subsequently help to handle stressful situations in the future. In contrast the bad stress, also known as harmful distress, discomfort. It can occur, if we can not use existing capabilities in coping with stressful events, or it is not possible to acquire new skills. Loss of balance, uncontrollable features. An example of this can be a monotonous work; where skills do not develop, partly because the current job does not require advanced skills nor we can utilize our plus skills. According to Selye the essence of stress is adaptation. Thus, the stronger the stress, the higher the required adaptability to the body.

1.2 Stressors

The factors that cause stress are called stressors. A stimulus becomes a stressor if the stress inducing event uncontrollable, unpredictable, so no preparatory process and it concerns the limits of our abilities which forms the negative of self image, thereby increasing the possibility of failure.

- ✓ uncontrollable: The mere belief that we are able to influence the particular event, brings the peace of mind. From the moment we no longer feel the power over an event and can not influence it we will feel more and more pressure and we will become more and more anxious.

¹Janos Selye: Stress without Distress

- ✓ unpredictable: Partly, if an event is predictable, we have the opportunity for a preparatory process. We can think through what may be the outcome of a particular event, so we can prevent or reduce the impact of the unpleasant stimulus. On the other hand, by an event that we can think through, we calm down, because we know what can happen, and we feel safe. An unpredictable event can have particular stressor for people who due to their day by day work are exposed to it such as paramedics and police officers.
- ✓ touches the limits of our abilities: in connection with a specific stress-inducing event we already feel that we can not cope with it, we do not have the required capabilities. If you can not cope with it we experience the events as failure that shaped our self-image negatively.

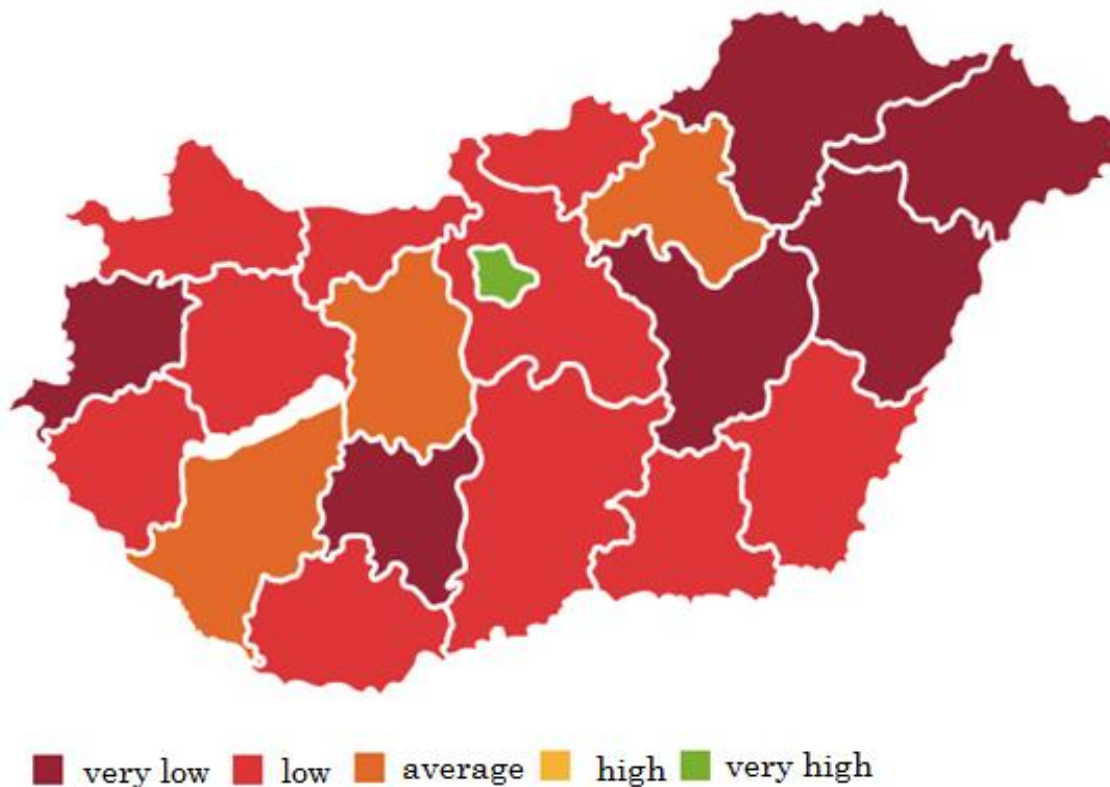
1.3 Symptoms of stress

Stress affects many parts of the body, and makes us more susceptible to physical and mental diseases. Under the influence of stress will be more adrenaline and more cortisol produced, which causing changes in heart rate, in blood pressure and in metabolic processes. If stress effect persists for a long time, occurs frequently or on the wrong time, it may cause a wide variety of negative feelings. These negative feelings may include sweating, fatigue, weakness, or a period of excessive vigilance, numbness and much more physical symptoms. Stress can increase blood pressure, which will enhance the risk of myocardial infarction. Stress can also cause a variety of gastrointestinal diseases and worsen pre-existing ulcer as well. It can intensify asthma and other lung problems. Stress can cause many mental and emotional problems. A number of other symptoms can be clearly seen in the figure below.

1.4 Ability of stress tolerance

Too much stress can harm your health, can create obstacle to both work and social life. Due to the repeated and continuous stress it is difficult to overcome the factors that cause stress. How an individual respond to pressure depends on human character, components raised by the difficulties of life, as well as diseases. These are the features which will determine the individual's relationship within the family and in the workplace and how the person will handle family issues or emerging financial problems. In order to be able to live with the stress, we especially need to recognize the situations that give rise to stress. Stress tolerance partly inherited, partly developed. The essence of stress tolerance is to recognize the problem and overcome it. Later I will discuss methods that can reduce or even can stop the emerged stress.

Figure 1: Ability of stress tolerance in Hungary (2015)



Source: <http://www.life.hu/nagystresszteszt/index.html>, date of download: 04 March 2017

The map shows the distribution of stress tolerance by counties in Hungary. As shown in the figures the level of stress tolerance is very divided. There are counties where the stress tolerance is especially low. The map reveals another interesting fact, notably that people living in the capital have the highest level of stress tolerance, regardless that the highest sources of stress factors can be found in larger cities. Based on this figures it can be concluded that there is a linear relationship between stress levels and stress tolerances. The higher the stress level, the greater the stress tolerance, but this can not be generalized.

1.5. Stress control methods

The process by which a person attempts to defeat suffered stress, is called coping. There are two main forms of coping. One of the form is when a person focuses on the situation, try to avoid or change it in the future. This process is called Problem-focused coping. The second form called emotion-focused coping, in this case the person is trying to ease the emotional reactions associated with stress inducing situation.² The most important step to overcome stress is to recognise the problem. The fact that we can determine what is causing the tension,

what change to make, understand the impact of stress and how to minimize its effect. One way to overcome stress is to include sport, physical activity into your daily routine. Regular exercise, for instance aerobic, while ensuring the body's health and fitness, improves the state of mind as well. Exercises for the buttock and arm muscles are stimulate the "pleasure hormone production," thereby increases our good mood. Keep in mind when making the choice of sports choose a form of exercise that you enjoy, and you may want it for a long time, as part of your life. Relaxation is also an important method to overcome stress. Relaxation techniques are meant to promote the development of physical and mental balance. There are many treatment and relaxation techniques, which serves to relieve stress. One of the well-known method is meditation. Meditation is effectively influences the heart rate, breathing, migraines, and high blood pressure. In parallel with meditation tenseness and anxiety can be reduce. Yoga includes postural exercises that improve body condition. Yoga techniques help us to better understand our body, our body's functions and its reactions. With the help of these techniques, we will be able to deal with the stress affecting us. In addition to the exercises, conscious breathing also plays an important role. Conscious breathing is easy to learn and very effective under stress.

Furthermore our diet is also very important. Some foods specifically have stress-reducing effect such as spinach. Spinach helps the production of dopamine, which is basically a pleasure inducing compound. The greater the dopamine production the higher our peace of mind. Another similar dish is salmon. The salmon contains lot of omega-3 fatty acids, which can compensate for the effects of adrenaline and cortisol, produced under stress. Significant focus should be on how we respond to stress. In particularly our attitudes, our perceptions and our intelligence will determine to what extent stress affects us.

In the rest of the essay I'd like to comment on the topic of work-related stress , and I would like to focus on the related research.

2. WORKPLACE STRESS

2.1 Workplace stressors

Work stressor is called the factors that cause stress for most people in the workplace, as well as a result of it. The law 1993 XCIII. was established to regulate stress at work. The law oblige the employer to do everything possible to avoid psychosocial risks related to work.

² Rita L. Atkinson – Richard C. Atkinson– Edward E. Smith--Daryl J. Bem – Susan Nolen-Hoeksema: Psychology

Psychosocial risk mean the totality of effects (conflicts, work schedules, status of employment) an employee experience at work, which influence the responses given to this, and can be triggered by stress, work accident, possibly psychological disorders. The types of workplace stressors:

- Work-related stressors task
- Hierarchy and stress in workplace

2.1.1 Work-related stressors task

All work has elements that may be stress sources for certain people. This includes quantitative or qualitative over- or underload. Quantitative overload occurs when a worker has been given too many task within a specified period of time. It is a growing phenomenon, for example, that a person who working in an eight-hour shifts are incapable to complete the task during the 8 hours but instead can execute it in 9-10 hours. Such an overload can lead to short-term physical and mental fatigue. The opposite is quantitative underload. This is the case when the employees are bored because the tasks assigned to them doesn't ensure full-time employment, or when the employee must perform simple, routine work. In case of a qualitative overload the worker need to cope with too complicated tasks. This type of overload, according to some studies leads to decrease in self-esteem. The employer is obliged to provide the necessary tools to carry out the work. In the absence of appropriate working tools it might be difficult for the employees to carry out the work, which can become the source of stress. Another possible source of stress for the employee, if there is no right to have a say on work process and what tools to use, have no influence on work schedule. Stress can trigger working conditions for instance when you have to work in dangerous conditions, work in shifts or on the weekends. One of today's typical stressor a rapidly changing world. These changes have an impact on work, because nowadays most work can be performed with machines. Besides to the above mentioned work stressors, we also need to name deadlines, fatigue resulting from physical work, or from overtime work.

2.1.2 Hierarchy and stress in workplace

In this chapter we distinguish stressors arises at individual level and at group level. First, I'll give details of the stressors that appear on the individual level. Sometimes the workers do not have adequate information regarding their work. This is what we call role ambiguity. In this case, the work goals are unclear for the individual, he is uncertain about the expectations of the staff regarding his role, precarious about the area that his responsibility covers. Another case in which employees opinions collide, it is called conflict role. It is also a potential source

of role conflict when a person has to perform a task, what he does not want to do or he himself did not feel part of the job. It can be stressors for someone with too much responsibility for the promotion or even the dismissal of other employees.

On the Group level I would like to highlight three stressors. One is the lack of cohesion. To get a working group be operational cohesion is needed. Greatly complicates the job when in a working a place employees instead of helping to each other, they work against each other. Problems may arise from the fact that the staff are not on good terms. Poor working relationship exists where there is little trust, insignificant support and interest of the problems toward others. Considered as a special case of conflicts within the group the so-called psycho-terror. This conflict is a process in which some were harassed, abused, hurt over a longer period of time.

2.2 The effects of work-related stress for the company

Peter Nesztger, the head of the Ministry of Economy Labour Inspection Department in a press conference in 2015 he made the following findings public. The number of workplace accidents in 2014 increased by 14 percent. This expressed in numbers 19661 workplace accidents were recorded in 2014, of which 78 had fatal outcome. In addition, the employees were absent from work up to 21.5 million days. According to an EU survey, more than half of this absenteeism is due to stress at work. In Hungary, nearly HUF 440 billion losses identified within the enterprises, due to workplace generated and poorly managed stress. In Europe, current surveys show that a third of employers have processes that are suitable to narrowing the psychosocial risks. In Hungary the National Labour Office in collaboration with the National Focal Point has launched a campaign Titled as "Healthy Workplace - Manage your stress!" This methodology campaign intended to provide methodological assistance to companies in developing appropriate stress management practices. Surveys conducted earlier by the European Agency states that following occupational accidents, work-related stress is the second largest risk factor. At EU level, this affects 56 million workers, about 1.1 million people in Hungary could be affected directly. The Member States of the European Union spend an average of 4 percent of the GDP per year, the Hungarian government and employers spent about HUF 880 billion as compensation for accidents at work and occupational diseases.

3. THE RESEARCH

3.1 Hypotheses

1. My opinion is that these days we can hear more and more often about stressful jobs. This suggests that workers' stress level is high.
2. I believe that those who have high stress levels, these have low ability of stress management.
3. My assumption is that stress tolerances level of students is low, because the stresses which affect the mare not as intense as in the case of an employee.

3.2 Description of the model

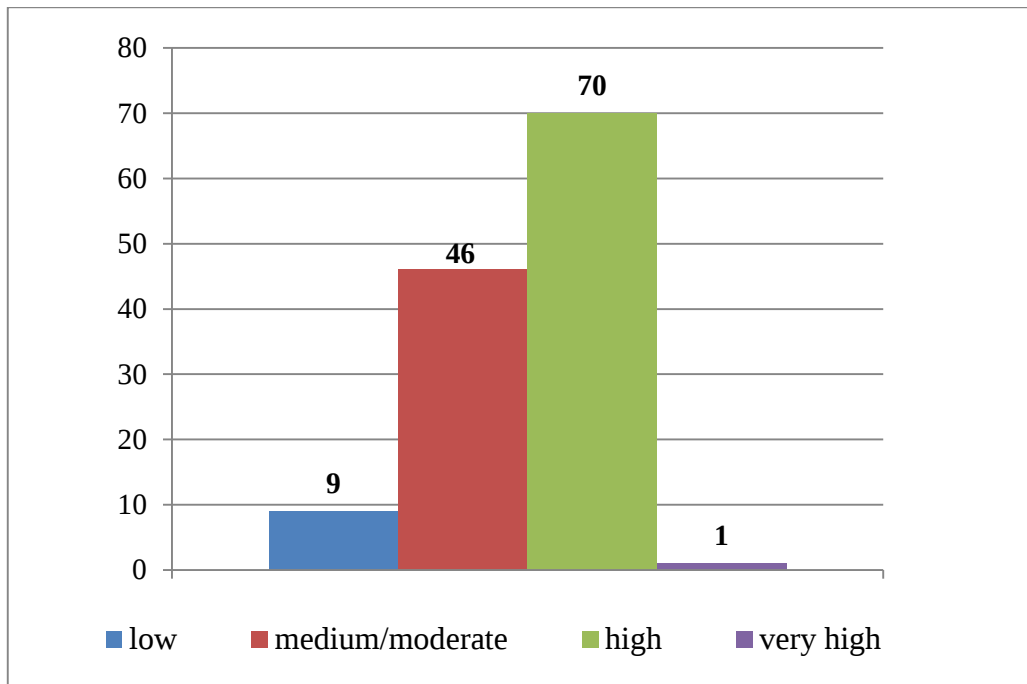
208 responses were received to the questionnaire, of which 137 are women (65.9%) and 71 men (34.1%). The majority of respondents (45, 2%) were between 19 and 25 years. I got the least responses from people over 55 years (11%). The key issue of my research was the profession, because my research is build on the employees and prospective employees' stress levels. Of the 208 respondents, 126 people are currently employed and 82 are students.

3.3 Analysis of replies

First of all, I wanted to measure how high is the stress level of the respondents. These levels were classified into four categories: low, medium, high and very high stress levels. The assessment was as follows: stress values are between 1 and 5 of which 1 is low; 2. medium / moderate, between 3-4 high, and finally 5 is very high. Respondents were examined individually by profession (employed/students).

Having examined the stress levels among employees, I got the following results:

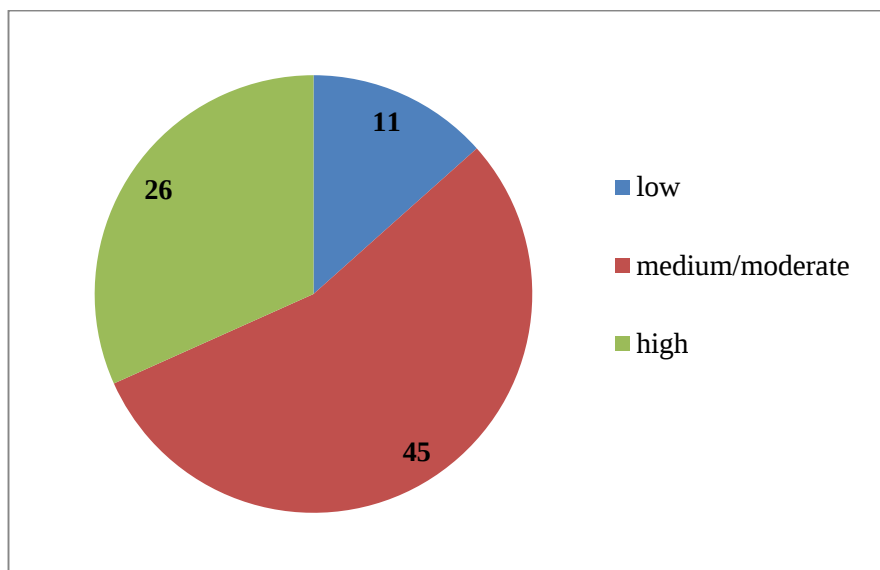
Chart 1: Stress levels of employees



Source: The compilation based on the responses received to the questionnaire

As the chart shows 55.6% of the employees have high stress level. In addition 46 person of the 126 respondents were observed with moderate stress level. These workplaces should look for activities, such as team-building to reduce the level of work-related stress. Observing working environments where a variety of methods are used to make the atmosphere more familiar, shows that workers relationship to work are in general more positive.

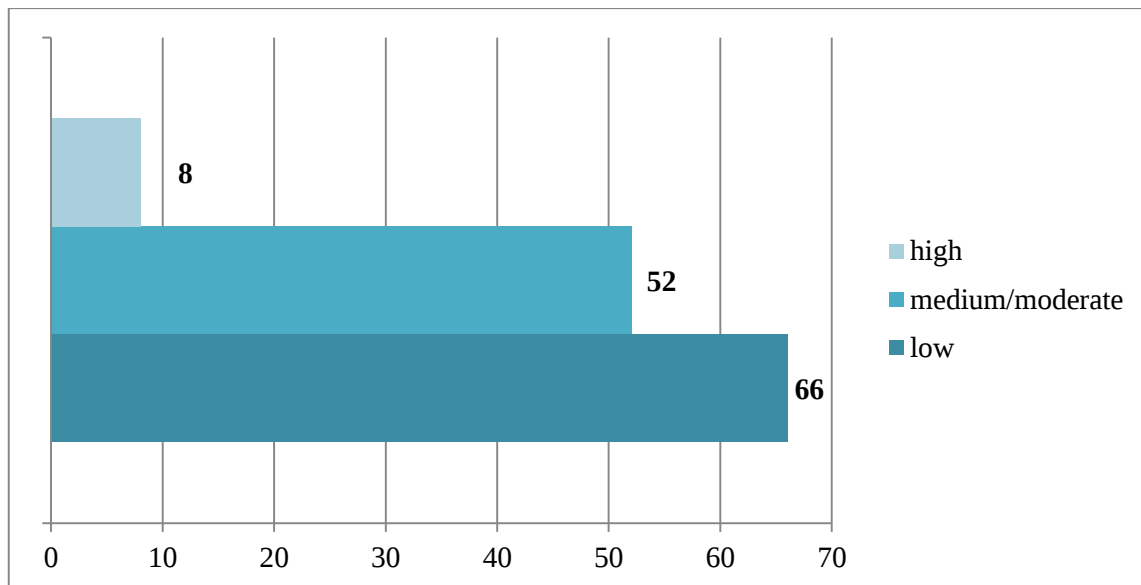
Chart 2: Stress levels of students



Source: The compilation based on the responses received to the questionnaire

More than the half of respondents, precisely 54.8% - belong to the category of moderate stress levels. In addition, 26 of 82 respondents have a high stress level. This is due to the fact that the majority of high school students are also working part time as a student. Although they are less exposed to stress, they still experience work-related stress.

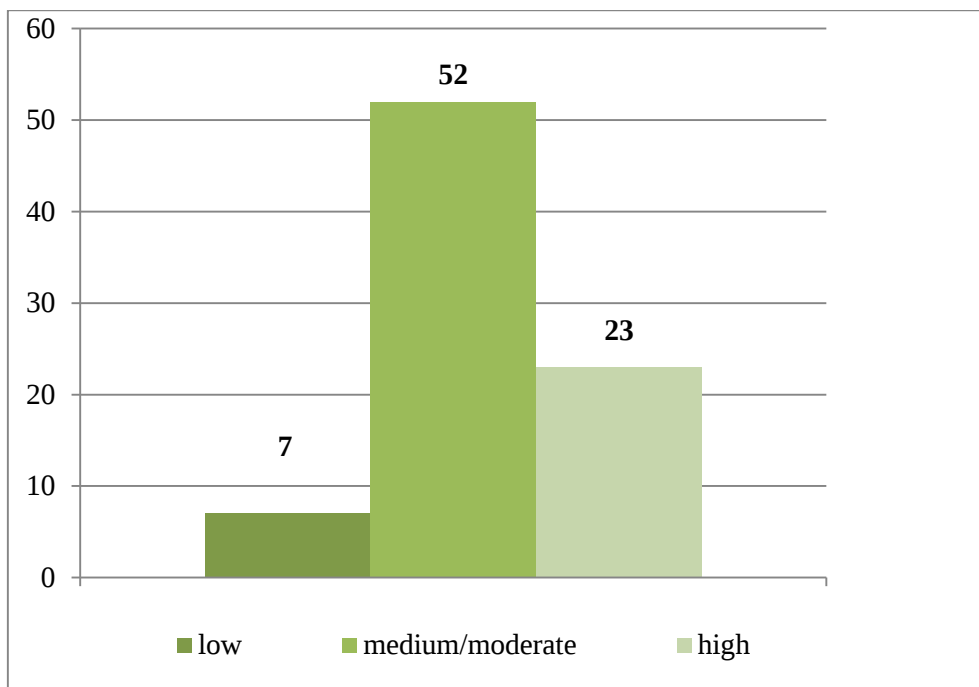
Chart 3: Stress Management skills among employees



Source: The compilation based on the responses received to the questionnaire

Another major component of my research is related to ability to handle stress. As the chart illustrates 52.4% of workers have a low-stress handling ability. For approx. 41.3% of respondents moderate levels can be observed. There were a total of 8 people with high stress management skills. From these data we can see that besides the high stress levels of employees, the other problem is that workers ability to handle stress is low.

Chart 4: Stress Management skills among students



Source: The compilation based on the responses received to the questionnaire

The chart shows that students' ability to handle stress is moderate. High stress management skills grounded to 28% of them. Based on these results my third hypothesis is, that students have a low ability to handle stress, but this is contradicted by the fact that more than 60% of the respondents have moderate stress management ability. The reason for this perhaps that although students have been experiencing stress during the student's work, but not to the extent that would make them unable to deal with. Furthermore its widely known that students in general, tend to have more social connections than working families and this is an important fact because this is what helps to reduce stress level.

4. SUMMARY

Not by chance that stress is called epidemic of the 21st century. Stress is the most common problem these days, more and more people have to deal with. My study represents several methods by which stress can be managed. One of the most important thing is to recognize the problem in time and seek appropriate help. It is important to understand that stress effect dependents on how we respond to it. We all have the ability to develop resistance against stress, which will results in less stressful situation in the future.

It is important for companies that the employees and the employer is aware of their responsibilities. Therefore the employer's actions should meet the obligations and create ideal conditions for the workers. The worker must take himself and his companions into account. In

order to be operational a company should exclude as many stressors as possible. Recently, many enterprises have a personal staff, who monitors the psychological state of the employees and if necessary they lend support. Particular attention should be paid to those events that provoke large amount of stress. Such events may include for example death, a serious illness, or termination of employment capability.

Examining the hypotheses I determined the following conclusions. According to the first hypothesis stress level of workers is high. This hypothesis confirmed by the responses of the questionnaire, because 55.6% of the employees lead high stress level.

The second assumption was that if someone exposed to high levels of stress, have low ability of stress tolerance. The hypothesis proved to be true, because if I examine the responses of employees there was low ability of stress tolerance at the side of the high stress levels.

Finally, the last hypothesis that students ability of stress tolerance of is low. It has been based on the results, but this hypothesis was disproved, because more than 60% of the respondents have medium level of stress tolerance.

I believe companies should pay attention to two things: first of all reduce workplace stress. On the other hand companies should make effort to help employees to improve their stress handling ability. Companies must use methods which filter out workers in low stress handling capability. Then must help them develop these skills.

In my opinion, people in all areas of life have to learn to live and deal with stress, all of us should learn to recognize stress symptoms in time and seek help in case we find it difficult to handle the case.

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FULL QUESTIONNAIRE

How typical of you the following statements? *

1.very not , 2. not really, 3.a little bit, 4.typical 5.very typical

	1	2	3	4	5
I'm afraid to criticize and tell people what I think.	☐	☐	☐	☐	☐
I dare not refuse tasks.	☐	☐	☐	☐	☐
I can hardly sleep at night and wake up sleepless.	☐	☐	☐	☐	☐
The relationship with others is more based on safety, it is difficult, if you don't know what to expect someone from you.	☐	☐	☐	☐	☐
Often I leave half my stuff, and I'm starting something else.	☐	☐	☐	☐	☐
I'm afraid to speak in public.	☐	☐	☐	☐	☐
I often feel tense or overwhelmed.	☐	☐	☐	☐	☐
I can not sit still, so I walk around constantly.	☐	☐	☐	☐	☐
There is not enough energy in order to comply all tasks.	☐	☐	☐	☐	☐
I feel that I am in a completely impossible situation.	☐	☐	☐	☐	☐

How typical of you the following statements? *

1.very not , 2. not really, 3.a little bit, 4.typical 5.very typical

	1	2	3	4	5
I know how to handle the unsettling situations.	☐	☐	☐	☐	☐
I think that I can be well overcome difficult situations.	☐	☐	☐	☐	☐
It is difficult to stand in stressful situations.It is difficult to stand in stressful situations.	☐	☐	☐	☐	☐

I can handle stressful situations without becoming too nervous.	☐	☐	☐	☐	☐
I can also keep my composure in difficult situations.	☐	☐	☐	☐	☐
I can hardly face the unpleasant things.	☐	☐	☐	☐	☐
I am anxious nature.	☐	☐	☐	☐	☐

How typical of you the following statements? *

1.very not , 2. not really, 3.a little bit, 4.typical 5.very typical

	1	2	3	4	5
It's hard to restrain myself when you feel angry.	☐	☐	☐	☐	☐
If I start talking, hard to stop.	☐	☐	☐	☐	☐
If you explain to something, mostly I used to tell me to talk more quietly.	☐	☐	☐	☐	☐
I'm neurotic.	☐	☐	☐	☐	☐
I am impulsive nature.	☐	☐	☐	☐	☐
I am impatient.	☐	☐	☐	☐	☐

Respondent data:

Your gender: *

- ☐ female
- ☐ male

Your age *

- ☐ 15-18
- ☐ 19-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ Over 55 years

Currently you are: *

- ☐ student
- ☐ employee

Your highest level of education: *

- ☐ primary school
- ☐ graduation
- ☐ university degree