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Stress and Quality of Life among Higher Education Students in Macedonia

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Abstract

This paper elaborates the problem of stress among students from higher education at Faculty of Tourism and Business Logistics, "Goce Delcev" University, Stip, Republic of Macedonia. The survey includes several questions about the causes for emergence of stress. After conducting the survey at all study programs of the Faculty, the data were processed, and a survey report was prepared. This comprehensive report contains an analysis and evaluation of the largest and most significant part of students' activities at the faculty and its study programs. This research could be a starting point for referring and thinking about some other study models for full-time students who are alarmingly exposed to stress, which can negatively affect not only the results of studying, but also the ability to work, and their health.

Keywords: student burnout; students' activities; self-efficacy; social support; academic achievement.

1. Introduction

The student is a key element in contemporary higher education. The role of the student is big in the teaching process and the science where not only participates but is also a user of the processes. The significance of students is even greater with the fact that they represent a critical mass in society as bearers of new ideas, perspectives and creations. The human organism develops a state of disbalance under the influence of various external and internal factors. Stress aims to enable the body's adjustment, adaptation to sudden changes, i.e. to altered living conditions (Petz, 2005). Most people experience stress as part of everyday life (Li & Hong, 2007; Triandis & Suth, 2002; Yang, 2004). Adjusting to a new environment, a new work place, a new start, can be very stressful. It is true that stress cannot always be avoided, but one can learn to live with it, with a tendency to reduce the risk of various physical and mental illnesses. Many authors attempted to provide a concise and comprehensive answer to this question, describing the phenomena (stressor) of the stressful situation and the response to stress individually (Maslach, et al., 1996). In addition, the stressful situation is determined as a condition caused by changes in the external or internal environment. While a stress response is defined as a response to an organism toward a particular trigger-stressor (Larsen & Buss, 2008; Knezevic, et al., 2004).

The main goal of this study is the impact of stress, as one of the major factors that can affect the prosperity of the student, not only in a professional manner, but also on their individual development.

This study covers a number of indicators (stressors), such as: daily worries, unfulfilled expectations, various constraints among students, etc. They play a major role in presenting a clear picture that shows the impact of stress on students from higher education (McCrae, & John, 1992; Smederevac & Mitrovic, 2006; Zhang & Zhang, 2009).

This research seeks to fulfill the following individual goals:

- ❑ To indicate the importance of stress on students' mental development;
- ❑ To analyze the degree of stress among students; and
- ❑ Make important recommendations for reducing stress among students through reforms in higher education and applying new, mental models that will affect the overall quality of life of students.

In the direction of achieving the set objectives, this study is methodically structured in several parts. After the introduction, the second part gives an overview of the theory that addresses the problem of stress among the students and the concept of quality living, as well as the benefits of developing healthy generations. The third part explains the applied research methodology, while the fourth part contains the analysis and interpretation of the results of the research. The conclusions and recommendations are presented in part five.

2. Literature review

Stress is a state of endangering the bio-social balance of the organism (Havelka, 1995). Interesting is the definition of Lazarus and Folkman (1984) one of the modern pioneers – stress researchers, who defines stress in a very original way as: a sum of total wearing of the body over the course of its lifespan. The modern man is under the strong influence of many factors. He is under constant pressure to maintain adaptation to the accelerated changes in the environment and in his own body (Backovic, 2002).

At the same time, the accelerated dynamics of developments in the environment and the conditions to be adapted to create more obstacles to the possibilities of meeting internal needs, which is experienced as a state of increased frustration (Pines,

1993, according to Mejovsek, 2002).

The dangers that lurk around the environment to impair human integrity are multiplied, thus human being is often confronting with fears and concerns, as well as with the uncertainty of the future. Everyday disruptions to the environment, the more frequent wars spread around the world, existential uncertainty, and disruptions in family and social relations become real and lasting sources of stress. The effect of physical stress on the body can be easily measured. For example, if an individual is doing something exciting, as the excitement increases, so does the number of heartbeats and the rate of breathing. The emission of adrenaline and cortisol increases, energy release into the body, but a large amount of that energy is released through the heart rate and accelerated breathing. In this way, the body copes with physical stress (John, 1990; Digman, 1990).

In emotional stress, the situation is different. Under the pressure of time and activities, or under the pressure of passing an exam, with the desire to respond to the test the best way, psychic stress grows more. Again, two types of hormones are activated. The body constantly releases cortisol, but the extra energy that is obtained through this hormone remains unused. It is precisely this that leads to a series of problems. Often comes to occurrence of health problems and osteoporosis, diabetes, heart disease, and various psychiatric disorders (Maslach & Schaufeli, 1993).

Adults often say that youth is the most beautiful and carefree period of life. In reality, as much as youth has a magic in itself, it also brings difficulties and challenges that young people need to face.

Non-acceptance by adults is one of the stressors that put young people in a stressful situation because it is very important to them how are they perceived by adults (Farsani, et al., 2012).

The number of significant changes among young people in transition periods, such as going from elementary to high school, as well as from secondary to university, is also high, in taking over bigger responsibilities and decisions that need to be made. As a stressor, student failure is also involved, which is often a source of additional disturbing situations like a conflict with parents (McCrae, & John, 1992; Schaufeli & Buunk, 2002).

The uncertainty of the future, the overwhelming expectations of parents, ending of a relationship, conflict with friends and many others (Bakker, et al., 2002; Bulik, 2005; Storm & Rothman, 2003) are just a series of possible stressors for the young population.

Based on the actuality of the topic – stress among young people, in this study research was carried out to determine the impact of stress on students from higher education.

3. Methods in the research

In general, the contribution of this research is threefold:

❑ Provides in-depth knowledge of the implementation of new concepts for stress reduction among the young population, outlining certain new challenges that need to be addressed in managing stress;
❑ Presentation of the awareness of the degree of stress among the students at the Faculty of Tourism and Business Logistics, which can serve as an example to the other faculties in Macedonia in relation to the stress situation among students in everyday living and studying; and
❑ Enrichment of the modest literature on this subject in Macedonia.

The teaching and learning process of the Faculty of Tourism and Business Logistics at the University "Goce Delcev", Stip, is carried out through the realization of five (5) study programs: Tourism, Business Logistics, Gastronomy, Nutrition and Dietetics, Business Administration and Hotel-Restaurant Program with the possibility of three and four years of study. In the academic year 2016/2017, a total of 608 full-time students enrolled in the faculty, who are subject to research in this study, listed in Table 1.

	Total number of students enrolled in the first year of study	Total number of students in the second year of study	Total number of students in the third year of study	Total number of students in the fourth year of study
Business Logistics	80	56	56	66
Business Administration	81	31	41	26
Gastronomy, Nutrition and Dietetics	24	32	21	4
Hotel-Restaurant Course	15	25	24	11
Tourism	14	0	0	0
Total	**214**	**144**	**142**	**108**

Table 1. Total enrolled students at the Faculty of Tourism and Business Logistics, Skopje, at the University "Goce Delcev" – Stip in the academic year 2016/2017

For the purpose of this research, qualitative and quantitative methods were used. The qualitative approach includes a review of the literature of many publications that generally address the problem of stress among students and the implementation of mental models for quality of life among students. At the same time, many websites were followed where information on stress prevention initiatives among students in higher education was available. The quantitative approach consisted of a survey designed for students of all years of study and all study programs at the Faculty of Tourism and Business Logistics. The survey was conducted in the period of April 2017. The sample was made according to the list obtained from the student service at the Faculty of Tourism and Business Logistics (Table 2). In the survey that was conducted in March 2017, out of the total number of 608 full-time students enrolled at the faculty, answers were received from 395 students. The participation of students in the survey is 65% of the total number of enrolled full-time students, which is a good basis for analyzing the results of the stress impact of students from higher education.

	Total number of enrolled students	Total number of surveyed students	Percentage data (%) per year of study
First year	214	184	**85**
Second year	144	83	**57**
Third year	142	71	**50**
Fourth Year	108	57	**52**
Total	**608**	**395**	**65**

Table 2. Dispersion of results by student years at the Faculty of Tourism and Business Logistics at the Teaching Center, Skopje

The percentage distribution of surveyed students per study programs at the faculty in terms of the total number of enrolled students in 2017 is given in Table 3.

The survey is a powerful weapon for data collection and is one of the most used research methods, since the information

	Business Logistics	Business Administration	Gastronomy, Nutrition and Dietetics	Hotel-Restaurant Program	Tourism
Percentage data display (%)	65	80	56	30	42

Table 3. Percentage distribution of surveyed students by individual study programs in the total mass of enrolled full-time students in 2016/2017

arrives in a form that is easy to analyze and is most easily carried out and collected. The survey consisted of a questionnaire structured in two parts:

Part I: General data (two open questions on the basis of the year of study and the study program);

Part II: Indicators for measuring stress among students (forty-six questions for measuring stressors).

In general, the questionnaire consisted of one type of question: (1) Answers according to a 5-degree Likert scale (where 1 = at least, and 5 = the most). Thus, in the interpretation of the values of the results, in the quantification of the influence factor, the following scheme was applied: 1.00-1.80 (very low); 1.81-2.60 (low); 2.61-3.40 (moderate); 3.41-4.20 (high); and 4.21-5.00 (very high).

The questions in the questionnaire are composed of 46 indicators selected from the numerous indicators previously applied and discussed by many authors for determining the impact of stress on the student himself.

By obtaining the results of the questionnaire from the student survey – stress test, a solid basis for quantitative analysis of the impact of stress among students is obtained.

4. Analyses of the results

In general, the survey concluded that the surveyed students had different views regarding the research topics, and the asked questions and indicators that were measured were aimed at determining the existing degree of stress among the students at the Faculty of Tourism and Business Logistics.

The intention was to identify whether enrolled students in the higher years were more or less exposed to stress from students in the lower years and vice versa.

Table 4 summarizes the results of stress-related questions measured according to the student year of enrollment (average grade). Namely, it can be noted that students of the fourth year as well as students from the first year show significantly the most stress in their everyday life compared to second and third year students.

	First year	Second Year	Third Year	Fourth Year
Level of stress measured per year of study (average grade)	2.96	2.94	2.80	2.99

Table 4. Level of stress among students measured by study years (average grade)

Table 5 shows the summary results of questions related to level of stress among students measured according to the study program they are enrolled in (average grade). If we look at the distribution of results on the basis of study programs it is surprising that there is an average level of stress among all students, but is more evident among students enrolled in study programs tourism, gastronomy, nutrition and dietetics.

While table 6 summarizes the results obtained from the answers to the questions that relate to 46 indicators for assessing the level of stress among students.

	Business Logistics	Business Administration	Gastronomy, nutrition and dietetics	Hotel-Restaurant	Tourism
Level of stress measured per study programs (average grade)	2.93	2.93	2.98	2.82	3.14

Table 5. Level of stress among students measured by study programs (average grade)

	Indicators to assess the level of stress among students in higher education	Average grade
1	I consume at least one balanced meal a day	2.54
2	I sleep 7-8 hours. 4 nights a week	2.64
3	I have at least one person in my surrounding, from which I can ask for help any time	1.64
4	I exercise at least twice a week	3.01
5	I smoke	3.65
6	I drink less than 5 alcoholic beverages per week	3.33
7	My body weight is appropriate to my height	2.44
8	I drink less that 2 cups of coffee per day	2.89
9	I have a network of friends and family that I can rely on	1.58
10	I have confidence in at least one person from my surrounding	1.37
11	I'm generally in a good health condition	1.53
12	I'm able to speak openly about my feelings when I'm furious, worried, or under stress	2.34
13	I do something for fun at least once a week	1.81
14	I can recognize the symptoms of stress	2.26
15	In the course of the day, I devote time to privacy and tranquility	2.62
16	I find myself being imprisoned with less empathy for people who may deserve it	3.46
17	I don't do anything on my own	3.40
18	I feel exhausted and tired, with a lack of psychic or physical energy	3.70
19	I show calmness when I'm stuck in traffic jams, and I'm late for a meeting	3.08
20	I conduct calm conversations with the people I live with regarding the adoption of solutions to problems of family nature	2.11
21	I'm in race with the time during the day	2.97
22	I regret about the time I wasted in the past	3.72
23	I feel organized and I keep everything under control	2.35

Indicators to assess the level of stress among students in higher education		Average grade
24	I can recognize when I'm not dealing good with things while under pressure	2.20
25	I feel rested	2.80
26	I think many things are expected from me	3.13
27	I feel short-tempered. not in shape	3.77
28	I feel lonely and isolated	4.25
29	I'm in conflict situations with myself	3.83
30	I do things that I really love	1.91
31	I feel tired	3.56
32	I feel that I cannot achieve my goals	3.73
33	I feel calm	2.44
34	I have to make many decisions	2.76
35	I feel frustrated	3.75
36	I'm full of energy	2.32
37	I feel tensed	3.60
38	It seems that my problems are getting bigger	3.64
39	I feel secure	2.18
40	I have a lot of worries	3.39
41	I feel that I'm under pressure from other people	3.74
42	I feel discouraged	4.07
43	I'm afraid of the future brings	3.98
44	I think I do things because I have to, not because I want to	3.76
45	I'm overloaded with responsibilities	3.42
46	I feel light hearted	2.53
Arithmetic mean of values		2.94

Table 6. Summary results obtained from the answers to the questions related to the indicators for assessment of the level of stress among students (average grade)

Note:
The impact factor is presented visually with color according to the following legend:

1.00-1.80 (very low)	1.81-2.60 (low)	2.61-3.40 (moderate)	3.41-4.20 (high)	4.21-5.00 (very high)

From table 6 it can be seen that there is a small number of indicators where stress among students is low, and this is related to issues of trust, socialization and health. Table 7 presents those indicators for assessing the level of stress among students in higher education who are high on the scale for stress levels.

Indicators for assessing the level of stress among students	Average grade
I smoke	3.65
I found myself being imprisoned with less empathy for people who may deserve it	3.46
I feel exhausted and tired, with lack of physical and psychic energy	3.70
I feel sorry for the time wasted in the past	3.72
I feel short-tempered, not in shape	3.77
I feel lonely and isolated	4.25
I'm in a conflict situation with myself	3.83
I feel tired	3.56
I feel that I cannot achieve my goals	3.73
I feel frustrated	3.75
I feel tensed	3.60
It seems that my problems are getting bigger	3.64
I feel that I'm under pressure of other people	3.74
I feel discouraged	4.07
I'm afraid of what future brings	3.98
I think I do things because I have to, not because I want to	3.76
I'm overloaded with responsibilities	3.42

Table 7. Collective results obtained from the answers to the questions related to the indicators for the assessment of the level of stress (high and very high) among the students (average grade)

Note:
The impact factor is presented visually with color according to the following legend:

3.41-4.20 (high)	4.21-5.00 (very high)

While Table 8 shows the extreme indicators in relation to the level of stress, from very low to highest level, as well as the arithmetic mean of the values of all indicators, which is 2.94, according to the factor of influence is in the middle zone.

I feel lonely and isolated	4.23
Arithmetic mean of values	2.94

Table 8. Summary results obtained from the answers to the questions related to the indicators for the assessment of the level of stress (very low, moderate, and very high) in students (average grade)

Note:
Color is represented by the following legend:

1.00-1.80 (very low)	2.61-3.40 (moderate)	4.21-5.00 (very high)

5. Conclusion

The research seeks to identify approaches under which Macedonian students will become happy and satisfied in the process of higher education. However, during the last few decades, stress has become a contemporary term, often used throughout the talks, also known as the main culprit for anything that happens when health and disease are concerned. The life of today's man is like "the speed of light," his tasks and responsibilities lie behind him, and he is not even aware of it. In addition to the fact that a person focuses on his existence, he also strengthens his status, education, new knowledge, and so on, in order to keep up with the progress of this world.

At the moment when the human organism with its limitations comes in a state that it cannot master all the tasks that life sets before it, the individual comes to a certain state, called stress. Because stress has a significant impact on health and is impossible to avoid, the question is how to deal with it.

It is obvious that academic stress, with everyday stressors, affects the development and level of stress among students, some in larger, and in others to a lesser extent. Of course it is not the same, if the student upon returning home, encounter children and domestic responsibilities who awaits them, or, there are no other obligations besides studying, as is not the case if after the lectures they have to go to work or not.

If students are stressed, there is law probability that completing of tasks will be successful. It is very important to know and recognize the signs of stress, because, when they are recognized, they can be managed. At the same time is also important to be able to recognize the symptoms of stress in other people, so that they can be better understood and there will be ease in the communication. This research could be a starting point for referring and thinking about some other study models for full-time students who are alarmingly exposed to stress, which can negatively affect not only the results of studying, but also the ability to work, and their health.

Positive effects have those activities that affect the body against the effects of stress. Such activities include relaxation techniques, autogenic training, biofeedback, Jacobson's technique of progressive relaxation, yoga, meditation, and so on. These techniques are commonly used with visualization techniques that the student applies with the feeling that he leaves the faculty with successfully passed exams and a day well spent.

Some studies show that positive emotions in the body cause effects other than the effects of stress. It is therefore advisable to practice various exercises of positive psychology that improve satisfaction, happiness, optimism, hope etc. During the breaks in between studying, activities that do not mentally burden are needed. Physical activities are recommended, but they must not be exhaustive in order to have energy to continue learning. It is also an essential element to strengthen self-esteem and to strengthen the spirit.

How Can Students Manage Stress?

To be provided with an adequate social network. If surrounded by friends, family and other cozy people are more likely to find support for their problems, and maybe they will have the opportunity to help others with similar problems.

To find a trusted person with whom can openly talk about the problems, especially when they become unbearable. Most often, it is someone from the close family, a friend or a professional who can be trusted.

To maintain constant physical activity. Whether professionally or not sport must be present in student's life, any physical activity has a positive effect on the mental health.

Incorporating healthy foods in a diet with balanced meals.

Ability to manage stress. To make a balance between the duties at the faculty and the private life, in particular by putting emphasis on various forms of hobbies, socializing with friends and all that is not related to the faculty.

Do not understand life too seriously, but also not light-hearted. In each activity a certain amount of humor is included, especially in moments of failure.

Make a timetable of the responsibilities. In this way, there will be full control over the servicing of responsibilities that would be distributed over the timetable without making any additional pressure.

Pay more attention and care for the health because long-term exposure to stress will cause contrary health effects. If the responsibilities are heavy, it is not a shame to reduce the goals and criteria

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