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**INCREASING THE EFFICIENCY OF STUDENT LEARNING
FROM A STRESS MANAGEMENT PERSPECTIVE**

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Abstract

Stress is a complex, psychosocial phenomenon, one of the 21st century disorders that affects more and more people. It is a phenomenon generated at the level of the superior personality structures, when the person is confronted with facts, situations, conditions, which are apparently insurmountable, overwhelming, provoking various types of deprivation (from physical, material, financial, to mental, interrelated, affective). In academic learning, stress can lead to poor performance, poor motivation for learning, apathy, various personality disorders, etc. Stress management may help mitigate the consequences and streamline academic learning (and beyond). Starting from these theoretical aspects, this study aims to inventory the stress factors in academic learning and to demonstrate that effective management of stress can lead to effective academic learning. The sample of our study comprised 120 students from the Faculty of Letters, who were in the third year of initial education (level I) within the Teacher Training Department, University of Craiova. The data collected and analyzed following the questionnaire survey led to the following findings: the level of stress depends on students' perception and attitude to the demands and difficulties encountered in the learning process; changing the way a situation is perceived, changing the thinking (positive, rational approach) and the attitude (assertiveness, openness to new, self-confidence), developing communication skills are some of the ways to manage stress.

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1. Introduction

1.1. Stress in everyday life. Definition and characteristics

Present and older theories on stress attach particular importance to diminishing stressors in any form of human activity, including school and academic education. Stress is at present the "causer" of depreciating human activity, being a causative factor or facilitator for various depressions and anxieties at any age.

Stanculescu (2013) believes that Selye, the specialist who is associated with the "paternity" of the concept of stress, surprises with a seemingly shocking idea: life itself is a stress. Starting from this conceptualization, we can deduce that stress is not necessarily something negative. Confrontation with stressors offers the possibility of developing adaptive psychic mechanisms (coping strategies), which will obviously be very useful in the future encounters with various challenging, stressful situations (Selye, 1984).

Researchers Vermunt & Steensman, (2005), Topper, (2007), Waters, & Ussery, (2007), Malach-Pines and Keinan, (2007) defined stress as the perception of the discrepancy between environmental requirements (stress factors) and the individual capacities to meet these requirements. While Campbell (2006) defines stress as the adverse reaction of people to excessive pressure or other types of external demands/ requirements, in relation to the subjective perception of the internal possibilities of responding to them.

Stress can be defined as the repercussion of a physical or emotional challenge that requires the body either to adapt or to suffer a physical or mental tension. Preclinical studies have indicated that stress can cause changes in multiple neurochemical systems. (Mihăilescu, et al., 2011).

Iamandescu (2002), regarding the definition of psychic stress, specifies that he is a particular case of stress, enrolled in the notional sphere of general stress, being triggered by certain stressors: the psychological ones. They are endowed with negative significance, distress inductors, or positive significance (eustres) for individuals, and operate in the consciousness only after their decoding and evaluation of the "burden" they place on the individual.

The list of stressor agents inventoried by different authors is varied, from country to country, from author to author. For example, other authors/ researchers (Malach-Pines & Keinan, 2007; Ongori, 2007; Awino & Agolla, 2008; Agolla, 2009) have long recognized the stress symptoms highlighted by lack of energy, resorting to medication, sometimes with the opposite effect, high blood pressure, depression, increased or decreased appetite for food or sex, tension and anxiety.

1.2. A possible classification of stressors

Stressor agents are harmful factors or psychic stimuli of affective significance, most often negative, strong. The multitude of these stressors has forced their classification according to certain criteria. Thus, Zorleţan, Burduş, and Căprărescu (1995), proposes the following classification: depending on the number of stressors in action, they can be: unique stressors, such as a strong noise with a tendency to prolong, or a sudden loud noise at night ; multiple stressors, for example, noise associated with heat and noxae.

According to the number of people affected, there can be identified: stressors with strictly individual significance (prolonged dissatisfaction of some physiological needs: intense thirst and the lack of perspective to quench it, hunger, sleep); stressors of collective, family "group" or professional significance

(failure of a child to take the exam, the death of parents, divorce, the prospect of unemployment in an organization, etc.); stressors of general significance affecting any individual (disastrous sudden events specific to natural disasters: floods, earthquakes, war, etc.).

By their nature, stressors can be classified as: physical stressors (stressors that induce physical discomfort to people and thus force their bodies to adapt: noise, vibration, radiation, prolonged physical activity, trauma, external haemorrhage, burns, light stimuli, illness, chronic headaches, extreme temperatures and humidity, etc.; chemical stressors (chemical poisons that have toxic effects on the body and can also induce psychological stress; biological stressors (this category includes viruses, bacteria, parasites by which various diseases are installed); psychological stressors (they are stimuli of noxious significance, subjectively interpreted by the human psyche at the level of thinking operations).

Depending on the connection with the problems of life, we can speak of: peripheral stressors that are materialized in transitory difficulties such as bad weather, crowded places, traffic jams, etc.; central stressors (important issues that can cause disruptions in a person's life).

The authors mentioned (Zorletan et al., 1995), based on research, have highlighted the existence of a long list of stress-generating causes, which, grouped by nature, appear in the form of conflicts that can be: family conflicts, professional conflicts, social conflicts, conflicts in the area of intimate life. Obviously, other causes can also be identified by different criteria, but it is important to emphasize that these causes (etiology) are often cumulative, triggering stress from different angles and perspectives.

2. Problem Statement

2.1. Stress and academic life

In the case of academic activity we can also talk about a certain type of stress in students. The students' academic performance can be affected by many factors. Bernstein, Penner, Stewart, & Roy, (2008) define the sources of stress as any circumstance or event that threatens to disturb daily functioning and forces them to make adjustments. Similarly, Phinney and Haas (2003) stressed the sources of stress, which include: difficult financial challenges, internal responsibilities, responsibilities related to maintaining a job during the faculty and the activities/ tasks deriving from the responsibilities of student life.

Essel and Owusu (2017) consider that one of the main stressors in academic life is the relationship or relationships the students have with the other members with whom they come into contact, conflicting relationships that can be financial, sexual, religious, with family, friends, relatives.

2.2. Stress factors in academic activity

The same authors (Essel, &Owusu 2017) also inventorize the possible factors that can be stressors in academic life.

2.2.1. Personal Factors

These factors vary from one person to another, which leads to a different set of perceptions, attitudes and behaviors. Personal factors can take different forms, in one way or another, and affect student performance. Among the factors identified by the authors of the study there can be identified: changing the

living environment; changing the biorhythm and sleeping habits; new responsibilities; financial difficulties; combining a job with studies: health problems; poor/ improper diet.

2.2.2. Academic Factors as Stress Source (Essel & Owusu 2017)

Among the academic factors, according to the mentioned authors, we identify: factors belonging to the academic curriculum and the academic educational policy; high expectations, mediocre results; too many study hours; the difficulty in communicating in the national language and (above all) foreign languages (for students studying in countries other than the home country); the linguistic competence can have a profound effect on an individual's ability to learn and develop, due to his key role in transmitting the information and in regulating the cognitive processes (Binder & Smith 2013). Other academic factors: the postponement/ avoidance of tasks; the difficulty of exams, the absence from courses/ lectures/ laboratories is an option for students who sometimes do not entirely depend on them. When some students do not attend courses or lectures, they become disturbed and particularly concerned about the course, they have difficulties in understanding and learning (Mogonea, 2010, 2014; Ștefan, 2014). Frustration due to misunderstandings occurs when students do not understand or misunderstand what the teacher is telling them.

2.2.3. Environmental factors

Among these, we mention (Essel & Owusu 2017): the lack of holidays or breaks; computer related issues (online, virtual); unpleasant living conditions; divorce between parents; placement in unfamiliar situations; fear; future worries: unrealistic expectations.

As with stress-generating causes, we can talk about stress factors in academic life, too, of a multitude of such factors, as well as the possibility of combining several of them into generating academic stress.

3. Stress management. Methods of managing stress.

There are many studies on the management of professional or daily stress (Hampel, 2007; Patel, 2009; Rollin, 2003; Singh, 2001; Borcoși, 2017; Ștefan, 2014). For example, Nădășan (2009) sums up some of the basic techniques and methods, simple and available to anyone, including to students, to relieve stress: participation in religious services, confession, return to religion, physical exercises, aerobics, walking, running, cycling, gardening, flexibility exercises, weight training, refreshing gymnastics, muscle relaxation exercises, antistress massage, melotherapy, ludo therapy (with age-appropriate games), stopping negative thoughts and stimulating positive thinking, relaxation reading (other than the mandatory faculty classes), meditation and recollection.

Besides the methods listed above for reducing academic stress and learning efficiency, other authors (Ștefan, 2014) further suggest the use of cognitive strategies in autonomous learning (methods for the primary processing of information and mental image formation, methods and techniques for understanding, the abstract processing of information, methods for generalizing, conceptualizing, and solving problems, methods of fixing-updating the cognitive experience and the information into the memory, methods for the efficient capitalization of learning, of transfer and application); metacognitive control or self-regulation strategies; motivational and affective strategies; the use of mobilization and self-projecting methods of learning, self-assessment methods, self-evaluation and self-regulation methods, reading methods and

techniques, practical and demonstrative learning methods, creative learning methods and techniques, constructivist learning methods, the elaboration of applied studies etc.

Other methods of reducing academic stress and learning efficiency aim at: correct time management (Macan et al., 1990), whether it is work, recreation or study; adopting a positive attitude and removing negative thoughts (Thompson, &Gaudreau, 2008); avoiding to delay difficult tasks; staggering tasks over time, according to the academic priorities; giving free time for parties and socializing with friends; water therapy (Lewis & Webster, 2014), (hot baths with aromatic oils and water consumption to hydrate the body enough.

3. Research Questions

What is the general experience, positive or negative, when referring to student life?

Which are the factors that determine academic stress?

Which are the ways to approach/ react when confronted with a problem/ a stressful event?

What are the ways students propose to relieve stress

4. Purpose of the Study

4.1. Objectives pursued

Our discovering research has as a **fundamental objective** to investigate students' views on some aspects of academic stress.

The specific objectives derived from the fundamental objective were as follows:

- Identify the general feelings of investigated subjects, how they relate affectively to student life;
- Identify the academic factors that cause stress;
- Identify the ways to manage academic stress in the students' vision;
- Find the influence of stress on academic performance.

5. Research Methods

The sample of our study included 120 students from the Faculty of Letters, who were in the third year of initial psycho-pedagogical training (level I), within the Department for Teacher Training, University of Craiova.

The research methods we used were the survey based on a questionnaire and the analysis of school documents. The applied questionnaire was elaborated by us and it contained various items, with both closed responses (most of them) and open responses. From the point of view of the questionnaire structure, some of the items turn to the Lickert scale, the students being asked to express their opinion on a scale marked with numerical values from 1 to 5, (1 - "not at all" 2 - "to a very low extent" 3 - "to a small extent" 4 - "to a great extent" 5 - "to a very large extent").

The first two questions were meant to "break the ice" between the subjects and the interviewer and to make the transition to the questions focused on the management of academic stress.

The other questions in the questionnaire asked for the opinion of the subjects on: general experience, positive or negative, when referring to student life (item 3), factors that determine academic stress (item 4),

ways to approach/ react when confronted with a problem/ a stressful event (items 5, 6), proposed ways of reducing stress (items 7, 8).

Item 9 required the subjects to perform a self-assessment of the level of stress perceived at the time of finalizing the Psycho-pedagogical Training Program. The last question in the questionnaire asked the subjects to propose strategies to reduce the stress of an academic type.

Another way of collecting the data we used was to analyze the school documents, more precisely to analyze the catalogs in order to make comparisons between the scores obtained in the exams and the level of stress of each subject.

6. Findings

We are going to present below, selectively, the answers given by the interviewed subjects. The data collected and analyzed after the application of the questionnaire led to the following findings:

a) Most subjects have intense stress, as shown in Table 1:

Table 01. The level of academic stress perceived by the students

Crt. no.	The level of stress	Frequency	Procentage
1.	Low level	29	24.17%
2.	Medium level	37	30,83%
3.	High level	54	45%

b) As for the subjects with a high level of stress, most of them have negative affective feelings: fear, restlessness, panic, terror (see table no. 2); only 38% say they have positive feelings (joy, enthusiasm, desire to discover new things, etc.)

Table 02. The affective reference to student life

Crt.no.	The nature of the students' feelings	Frequency	Procentage
1.	Most of them are positive	46	38%
2.	Most of them are negative	74	62%

c) the low-stress subjects are aware of the stressors, their own reactions to them, and have realistic expectations about their own capacities and possibilities to solve the problems;

d) the level of stress depends on the students' perception and attitude towards the demands and difficulties encountered in their academic activities; the factors determining the academic stress, in the students' view, can be found in table no. 3:

Table 03. Stressful academic factors/ events

Crt. no.	Factors/events that determine academic stress	Frequency	Percentage
1.	Multiple tasks under the pressure of time	24	20%
2.	Too high expectations from the teachers	22	18%
3.	Attitudinal-relational factors	20	17%
4.	Focus on grades: competition	16	13%
5.	Focus on work: the desire to do as many things as possible in as little time as possible	13	11%
6.	The desire to prove to the others your own competencies	13	11%
7.	Absent-minded and unmotivated teachers	8	7%
8.	Useless and boring tasks and activities without the intention of requiring/ developing capacities, abilities	4	3%

e) Most of the students have not developed stress management capabilities, as shown in table no. 4:

Table 04. Reactions of the subjects in stressful situations

Crt. no.	The reaction to confronting a problem/ stressful event	Frequency	Percentage
1.	When I encounter a problem, I avoid it (I pretend that nothing happens)	21	17.5%
2.	I try to address the problem from a different perspective, so as the problem would be easier to solve	18	15%
3.	I get frustrated when things do not happen as I want them to happen	18	15%
4.	In strenuous situations I get lost in imagination and fantasy	16	13%
5.	I accept things that are not following my planning	15	12.5%
6.	When things seem difficult to achieve, I get tired, I lose concentration and I often give up	10	8.3%
7.	I confront myself with the opinion of other people/ share with others my perception, my concerns	10	8.3%
8.	I do not know	10	8.3%
9.	Other answer	2	1.7%

f) The change of the way a situation is perceived, the change of thinking (a positive and rational approach) and of attitude (assertiveness, openness to the new, self-confidence), the development of communication skills are some of the stress management measures proposed by the investigated subjects;

g) The students with grades between 8 (eight) and 10 (ten) stated, in the questionnaire, that their stress levels are moderate (at least this is the perceived level, if we applied a standardized questionnaire to assess the level of stress, we might find that some subjects do not realistically perceive their own stress level).

7. Conclusion

- In the case of academic activity we can speak of a certain type of stress in students; the results are worrying: most students have a high level of stress when it comes to academic life;
- Students' academic performance may be affected by how they relate to events that threaten to disturb the daily routine; streamlining learning clearly targets stress management capabilities; students' perception and attitude towards the demands and difficulties encountered in academic activities determines the level of stress;
- Most of the students have not developed capabilities of managing the internal resources (when a problem occurs, 21% avoid thinking about it; they get angry when things do not happen as planned or as they want them to - 15%; they are lost in imagination and fantasy - 13%, they get tired, they lose focus and even give up - 8.3%);
- Among the most stressful academic factors, in the students' view, there are: multiple tasks/ time pressure; too much expectations from the teachers, attitudinal-relational factors, classroom atmosphere (the feeling of marginalization from colleagues and/ or teachers; tension generated by the temper of colleagues and/ or teachers, conflicts, no recognition/ appreciation of well-done work, etc.). It is an alarming signal for the teachers because all of these factors identified in this study are subject to the teachers' decisions and actions.

References

- Agolla, J.E. (2009). Occupational Stress among Police Officers: The case of Botswana Police service. *Research Journal of Business Management*, 3 (1), 25-35. <https://dx.doi.org/10.3923/rjbm.2009.25.35>.
- Awino, J.O., Agolla, J. E. (Eds.) (2008). A quest for sustainable quality assurance measurement for universities: case of study of the University of Botswana. *Educational Research and Review*, 3(6), 213-218. Retrieved from http://www.academicjournals.org/app/webroot/article/article1379591218_Awino%20and%20Agolla.pdf
- Bernstein, D.A, Penner, L.A, Stewart, A.C & Roy, E.J. (2008). *Psychology*. 8th ed. Boston New York: Houghton Mifflin Company.
- Binder, P., Smith, K. (2013). The Language Phenomenon. The Language Phenomenon: Human Communication from Milliseconds to Millennia. *The Frontiers Collection*. Springer-Verlag Berlin Heidelberg, 2013, 1. Boston - New York: Houghton Mifflin Company. Retrieved from https://play.google.com/books/reader?id=bUpEAAAQBAJ&printsec=frontcover&source=gbs_atb&pg=GBS.PP1
- Borcoși, C. A. (2017). Managementul stresului – metode și tehnici de combatere a stresului. [Stress Management - Methods and Techniques to Combat Stress]. *Analys of the « Constantin Brâncuși », University of Târgu Jiu, Letter and Social Science Series*, 3, 145-150. Retrieved from http://www.utgjiu.ro/revista/lit/pdf/2017-01.3.Supliment/18_Borcosi.pdf
- Campbell, F. (2006). *Occupational Stress in the Construction Industry*. Berkshire, UK: Chartered Institute of Building.
- Essel, G., Owusu, P. (2017). *Causes of students' stress, its effects on their academic success, and stress management by students. Case study*. Finland: Seinäjoki University of Applied Sciences.
- Hampel, P. (2007). School-based Stress Management Training for Adolescents: Longitudinal Results from an Experimental Study. *Journal of Youth and Adolescence* 37(8), 1009-1024. <https://dx.doi.org/10.1007/s10964-007-9204-4>
- Iamandescu, I. B. (1995). *Manual de psihologie medicală [Manual of medical psychology]*. București: Infomedica Publishing House.

- Iamandescu, I. B. (1995). *Stresul psihic și bolile interne [Mental stress and internal diseases]*. București: All Publishing House.
- Iamandescu, I.B. (2002). *Stresul psihic din perspectivă psihologică și psihosomatică [Mental stress from a psychological and psychosomatic perspective]*. București: Infomedica Publishing House.
- Lewis, J., Webster, A. (2014). *Sort Your Brain Out: Boost Your Performance, Manage Stress and Achieve More*. Capstone.
- Macan, T. H., Shahani, C., Dipboye, R. L. & Phillips, A. P. (1990). College Students' Time Management: Correlations With Academic Performance and Stress. *Journal of Educational Psychology*, 82(4), 760-768. Retrieved from <https://pdfs.semanticscholar.org/ea72/13c01261e9e172f1c362be3781df30f6f5b7.pdf>
- Malach-Pines, A., & Keinan, G. (2007). Stress and burnout in Israeli police officers during a Palestinian uprising (Intifada). *International Journal of Stress Management*, 14(2), 160-174. Retrieved from <http://dx.doi.org/10.1037/1072-5245.14.2.160>
- Malik, S. (2018, July, 08). Stress Management Tips for Students. Retrieved from <https://psychcentral.com/blog/stress-management-tips-for-students/>
- Mihăilescu, A. et. al. (2011). Investigarea distresului emoțional și a cortizolului salivar la subiecți tineri, sănătoși, în perioada de stres acut [Investigating emotional distress and salivary cortisol in young, healthy subjects during acute stress]. *Revista Medicală Română*, LVIII(1), 45-50. Retrieved from https://rmj.com.ro/articles/2011.1/RMR_Nr-1_2011_Art-10.pdf
- Mogonea, F.R. (2010). *Dificultățile de învățare în context școlar [Learning Difficulties in the Scholl Context]*. Craiova: Universitaria Publishing House.
- Mogonea, F.R. (2014). *Psihopedagogia dificultăților de învățare. De la teorie la practică [Psychopedagogy of Learning Difficulties. From theory to practice]*. Cluj-Napoca: Presa Universitară Clujeană Publishing House.
- Nădășan, V. (2009). *Față în față cu stresul: o aventură în lumea stresului cu Robinson Crusoe [Face to face with stress: an adventure in the world of stress with Robinson Crusoe]*. București: Viață și Sănătate Publishing House.
- Ongori, H. (2007). A review of the literature on employee turnover. *African Journal of Business Management*, 1(3), 49-54. Retrieved from http://www.academicjournals.org/app/webroot/article/article1380537420_Ongori.pdf
- Patel, A. (2009). Stress Management and Gifted Children. *European Journal of Psychology of Education*. 24(2). 222-228.
- Phinney, J. S., Haas, K. (2003). The process of coping among ethnic minority first generation college freshmen: A narrative approach. *The Journal of Social Psychology*, 143(6), 707-726. Retrieved from <http://www.sjsu.edu/faculty/masucci/ethnic&minoritycoping.pdf>
- Rollin S. A. (2003). A Stress management curriculum for youth. *British Journal of Developmental Psychology*, 25(4), 663.
- Scott, E. (2018, March, 29). *Stress Relievers: 70 Ways to Reduce Stress. Best Stress Relievers for All Types of People*. Retrieved from <https://www.verywellmind.com/tips-to-reduce-stress-3145195>
- Selye, H. (1984). *Știința și viața [Science and life]*. București: Politică Publishing House.
- Singh, P. (2001). *Stress Management Scale*. National Psychology Corporation. KacheriGhat: Agra.
- Stănculescu, E. (2013). *Managementul stresului în mediul educational [Management of stress in the educational environment]*. București: Universitară Publishing House.
- Ștefan, M. A. (2014). *Dezvoltarea competenței de învățare autonomă la studenți [Developing autonomous learning competence in students]*. Craiova: Sitech Publishing House.
- Thompson, A., Gaudreau, P. (2008). From Optimism and Pessimism to Coping: The Mediating Role of Academic Motivation. *International Journal of Stress Management*, 15(3), 269-288. <http://dx.doi.org/10.1037/a0012941>
- Topper, E.F. (2007). *Stress in the library workplace*. New Library World, (11/12). 561-564. University of Melbourne. <https://dx.doi.org/10.1108/03074800710838290>
- Vermunt, R., Steensma, H. (2005). How can justice be used to manage stress in organisations? In J. Greenberg and J.A. Colquitt (Ed.). *Handbook of organisational justice*, 383-410. Mahwah, NJ: Erlbaum.
- Waters, J. A., Ussery, W. (2007). Police Stress: History, Contributing Factors, Symptoms and Interventions. *Policing: An International Journal of Police Strategies & Management, Strategies Management*, 30(2), 169-188. <https://doi.org/10.1108/13639510710753199>
- Zorlețan, T., Burduș, E., Căprărescu, G. (1995). *Managementul organizației [Management of the organization]*. București: Holding Reporter Publishing House.