ANALYSIS OF THE IMPACT OF STRESS ON STUDENTS' MENTAL HEALTH

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Abstract: The research paper focuses on analyzing the level of stress experienced by students in the faculty and the various influences on their mental state. Through a comprehensive study utilizing questionnaire research methods, we aim to evaluate the variables associated with academic and psychological stress in the university setting. The results of this research have the potential to bring understanding and clarity regarding the needs and challenges of students, aiding in the development of more effective educational and mental health policies and services tailored to the specificities of each higher education institution. By identifying stress factors and management strategies, this paper makes a significant contribution to promoting the well-being and academic success of students.
Key words: psychological stress, students, mental health, management strategies.

1. INTRODUCTION

Academic and psychological stress pose significant challenges for students in the university environment, with the potential to affect both academic performance and mental health. Assessing the variables associated with these forms of stress is essential to better understand the drivers and develop effective management strategies. Variables associated with academic stress include workload, exam pressure, academic expectations, and work-life balance [1-3].

Also, psychological stress can be influenced by factors such as interpersonal relationships, adapting to a new environment, social support and available coping resources. Through a careful assessment of these variables, higher education institutions can create interventions and support programs that help reduce stress and improve students' mental health [6-9]. This paper aims to explore these variables in detail, highlight their impact on students, and suggest practical solutions for managing stress in the university environment.

Within the academic university environment, the stress and mental state of students have become increasingly relevant and concerning topics in recent years. Adjusting to university life, managing multiple academic and emotional challenges, and maintaining a balance between personal and academic life are essential aspects for the well-being and success of students. In this research paper, we aim to explore in-depth the level of stress among students and the multiple influences on their mental state [4,5].

Our objectives are manifold. Firstly, we aim to investigate the impact of adapting to the university environment on students' stress levels. Secondly, we intend to analyze academic pressure and the evaluation process and how these influence students' mental health. Additionally, we will examine students' relationships with professors and the impact of this relationship on their stress and psychological well-being.

To achieve these objectives, we will employ a research approach that includes collecting and analyzing primary and secondary data to assess the level of stress and mental state of students. By identifying stress factors and management strategies, we aim to contribute to promoting a healthier academic environment and improving students' academic success.

2. METHODS FOR ASSESSING PSYCHOLOGICAL STRESS IN ACADEMIA

The school environment is one of the most important sectors, in which tests, examinations and other forms of evaluation of acquisitions occupy a very important place. Assessment is an essential component of the educational process, often generating dissatisfaction, fear or indecision among students [8]. One of the factors that have been directly related to the evaluation of school performance is the anxiety about the evaluation situations that many of the students feel. Anxiety about testing is one of the individual characteristics that has begun to attract the attention of researchers in the field of education [9, 10]. It is felt as an excessive level of worry before, during and after the testing situations about the consequences of possible poor results and the discrepancy of thoughts regarding undervalued self-esteem, which in turn implies the low level of self-image, thus the anxiety about the test drains the student of energy, destroys his interest in studying and causes frequent mood swings [4]. The evaluation of school results is a complex and complicated process, which requires objectivity and fairness on the part of teachers and responsibility on the part of students. For an optimal and correct evaluation, it is necessary to apply different evaluation methods specific to the school discipline and the age of the students. The way of assessing school results must correspond to the needs of students and motivate them to learn [9].

Assessing psychological stress in academia is essential for identifying stressors and developing effective interventions. Various methods and tools are used to measure stress levels and understand its impact on students. These include questionnaires and psychometric scales, interviews and observations, as well as physiological measurements.

a) Questionnaires and Psychometric Scales - Questionnaires and scales are among the most used tools for assessing psychological stress. They allow data to be collected quickly and efficiently from many students.

- **Perceived Stress Scale (PSS) -** This scale is used to measure the general perception of stress in everyday life. Students rate how frequently they have experienced certain stress-related thoughts and feelings in recent weeks.
- **Academic Stress Inventory** (ASI) - This academic-specific scale assesses the level of stress associated with different aspects of university life, such as workload, exam pressure, and interactions with professors and peers.
- **Depression Anxiety Stress Scales** (DASS) - DASS is a tool that measures three dimensions of psychological stress: depression, anxiety, and stress. It is useful to differentiate between the different components of psychological stress.

b) Interviews and Observations
Interviews and observations provide a more detailed and qualitative perspective on the experience of psychological stress in students.

- **Semi-Structured Interviews**: These interviews allow for in-depth exploration of students' individual experiences. Open-ended questions facilitate detailed discussions about the sources of stress and the coping strategies used.
- **Observations**: Observing student behaviors in various academic contexts (e.g., during classes, in the library, or during exams) can provide valuable clues about manifestations of stress.

c) Physiological measurements - Psychological stress can also be assessed through physiological measurements, which provide objective data about the body's response to stress.

- **Heart Rate Monitoring** - Heart rate variability (HRV) is an important indicator of stress. A low level of variability is associated with increased stress;
- **Salivary Cortisol** - The level of cortisol, a stress hormone, can be measured by saliva samples. High cortisol levels are correlated with chronic stress;
- **Electrodermal Response** (EDA) - This method measures the activity of the sweat glands, which increases under stressful conditions.

d) Digital Technologies - Modern technologies offer new ways of assessing psychological stress in the academic environment.

- **Mobile Apps and Wearables** - Mobile apps and wearables can monitor stress indicators such as heart rate and physical activity in real time, providing continuous data on students' stress levels;
- **Online Assessment Platforms** - These platforms allow students to complete questionnaires and receive instant feedback on their stress levels, facilitating monitoring and early intervention

The use of a combination of methods allows a comprehensive assessment of psychological stress in the academic environment, providing valuable data for the development of personalized support and intervention strategies.

3. THE METHODOLOGY USED

3.1. Description of the method

The Stress Level Measurement Questionnaire is an essential tool in assessing psychological stress in students, providing a systematic and standardized method of collecting data about their experiences of stress. The use of such a questionnaire makes it possible to identify specific sources of stress and assess their impact on students' mental health and academic performance [3]. A well-designed questionnaire for measuring stress levels and impact on students includes structured questions covering various areas of academic and personal life. These questions are formulated to assess students' subjective perceptions of stress, frequency, and intensity of stressful experiences, and their effects on their mental and physical health. The questionnaire structure consists of the following parts:

1. Demographic:
- Age, gender, year of study, specialization;
- Socio-economic information (e.g. employment status, housing situation);

2. Sources of Academic Stress:
- Academic workload (homework, projects, exams);
- The pressure of grades and academic performance;

- Relationships with teachers and colleagues;
- Participation in extracurricular activities;

3. Sources of Personal Stress:
- Financial problems;
- Interpersonal relationships (family, friends, partners);
- Adapting to university life and distance from family;

4. Stress Perception:
- Questions about how often students feel stressed in various situations;
- Subjective assessment of stress intensity;

5. Stress Reactions:
- Physical symptoms (e.g., headaches, fatigue, sleep problems);
- Emotional symptoms (e.g., anxiety, depression, irritability);
- Coping behaviors (e.g., exercise, use of technologies, substance use);

6. Impact of Stress:
- Academic performance (grades, concentration, class attendance);
- Mental health (psychological diagnoses, use of counselling services).

Questionnaire Implementation - The questionnaire can be distributed through various channels, including online, by email, or in physical format, depending on the preferences and accessibility of the students. It is important that the questionnaire is anonymous to encourage honest responses and to protect the privacy of participants.

Data Analysis and Interpretation - Once collected, the data is analyzed to identify patterns and correlations between different sources of stress and student reactions. Statistical analysis may include:
- Descriptive statistics: Mean, median, standard deviation for reported stress levels;
- Correlation analyses: Identifying relationships between variables, such as academic stress and school performance;
- Regression analyses: Determining predictors of stress and its impact on mental health and academic performance.

Impact on Students - Assessing stress levels through questionnaires provides valuable insights into the impact of stress on students:

1. Identifying Critical Factors:

- Allows universities to identify the main sources of stress and implement specific interventions to address them;
- Highlight the groups of students who are most affected by stress (e.g., first-year students, international students);

2. Improvement of Support Services:

- The data collected can guide the development and improvement of counseling and psychological support services;
- It facilitates the creation of stress management programs, such as resilience workshops, mindfulness sessions, and support groups;

3. Educational Policies:

- Informing educational and administrative policies to create a healthier and more supportive academic environment.
- Adjusting curriculum and academic requirements to reduce unnecessary stress.

Using the questionnaire to measure stress provides a comprehensive insight into the challenges faced by students and enables higher education institutions to take proactive steps to improve student well-being and promote a more balanced and supportive learning environment.

3.2. Questionnaire development

The questionnaire was developed using the Google Forms platform to assess students' stress levels, academic pressure, and their relationship with professors. It consisted of 15 questions with "Yes/No" responses, covering aspects related to academic and emotional stress, difficulties in managing academic pressure, and perceptions of the relationship with professors.

1. "Have you ever felt stressed about not knowing which field to pursue in your career?" - This question aims to assess the uncertainty related to the student's future career and possible pressures associated with choosing a specialization.
2. "Did you find it easy to transition from high school to college?" - This question explores the experience of transitioning from pre-university education to university education and adapting to academic and independent life requirements.
3. "Have you ever felt that you haven't chosen the right college/field?" - This question investigates possible doubts or regrets regarding the choice of college or specialization.
4. "Have you adapted to the new learning environment?" - This question examines the student's level of adaptation to the university academic environment and its specific requirements.
5. "Have you adapted to living conditions with someone/alone?" - This question refers to adaptation to dormitory life or independent living and managing interpersonal relationships in these environments.
6. "Have you integrated well into the class community?" - This question explores the degree of social integration and interpersonal relationships of the student within the academic environment.

And so on, each question addresses different aspects of the student's academic and personal life that may influence their level of stress and mental health. These questions are designed to gather essential information for understanding and addressing academic stress and the specific needs of students.

Participants were selected from university centers across Romania. To be eligible, they had to be university students enrolled in higher education institutions from various counties of the country.

The link to the questionnaire was distributed online through social media platforms and specific discussion groups within the student community. Participants completed the questionnaire voluntarily and anonymously. Data collection took place from March 4th, 2023, to March 18th, 2024.

Methodology - The data collected were processed in Excel spreadsheets, where we obtained graphs corresponding to the responses obtained from the questionnaires. The data

collected from the questionnaires are related to the area, accommodation in the university environment, the relationship between student and professor, and extracurricular activities, thus obtaining risks regarding mental health status, followed by the elaboration and implementation of solutions.

The action plan will be implemented and monitored to see if the expected effects have been obtained, followed by another questionnaire for the same sample of individuals.

The research was conducted in accordance with relevant ethical principles and respecting the confidentiality of participants' personal data. Participation in the study was voluntary, and participants' personal information was kept anonymous.

4. RESULTS AND DISCUSSION

In Fig. 1 the total distribution of participants is presented according to their place of origin. It can be observed that most participants come from Bucharest, followed by Constanța, Brașov, and Sibiu, while other locations (Timișoara, Iași, Pitești, and Suceava) have a smaller number of participants.

Fig. 2 highlights the percentage of participants who responded "yes" or "no" to the question regarding stress related to uncertainty about career field choice. It can be observed that a significant percentage of participants indicated experiencing stress regarding this issue.

Fig. 3 illustrates the distribution of "yes" and "no" responses to the question regarding feelings of unease regarding the choice of college or field of study. The results show that a significant percentage of participants have experienced such doubts regarding their academic choices.
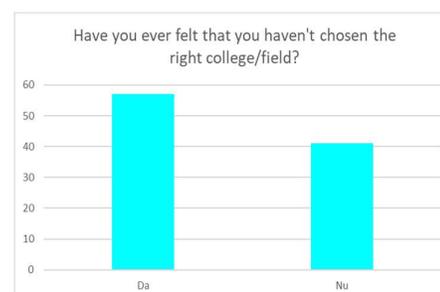
Fig. 4 presents the distribution of responses regarding the level of stress related to university education. It can be observed that a significant percentage of participants indicated feeling stressed during their university studies, thus emphasizing the importance of proper management of this aspect.
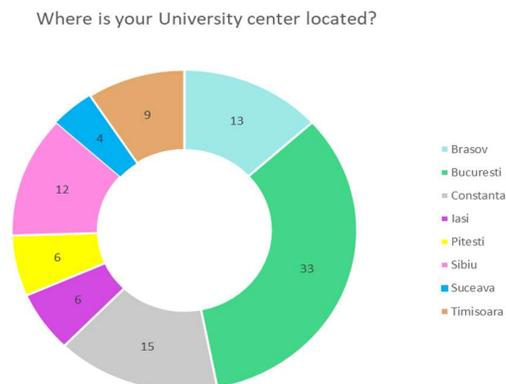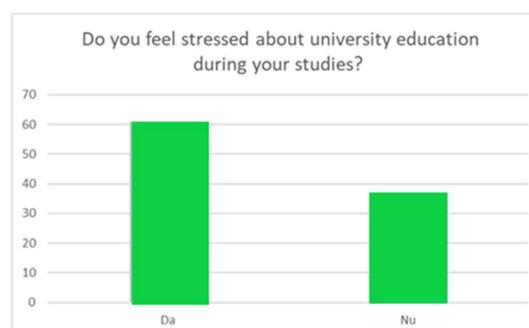

Fig. 1. The total distribution of participants according to their place of origin.
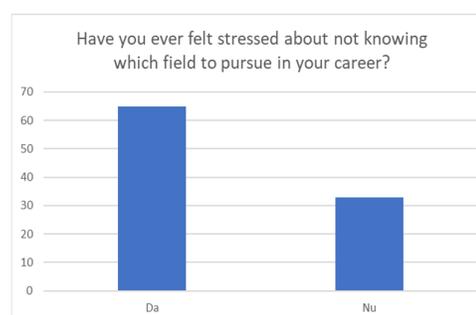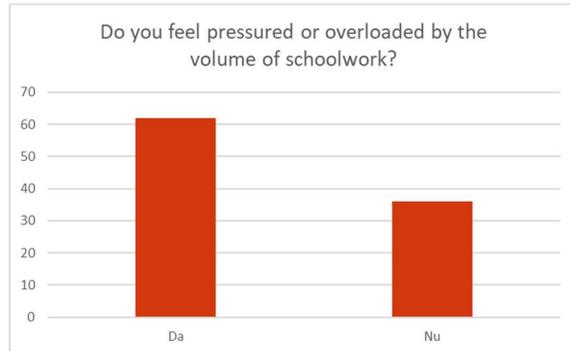

Fig. 2. Have you ever felt stressed about not knowing which field to pursue in your career?

Fig. 3. Have you ever felt that you haven't chosen the right college/field?

Fig. 4. Do you feel stressed about university education during your studies?

**Fig. 5**. Do you feel pressured or overloaded by the volume of schoolwork.

Fig. 5 highlights the distribution of responses regarding the pressure and overload caused by the volume of schoolwork. The results suggest that a significant percentage of participants indicated feeling pressured or overloaded by the volume of school tasks, which can represent a major source of stress for them

Fig. 6 presents the distribution of responses regarding difficulties in concentration and maintaining attention during classes or study sessions. It is observed that a significant percentage of participants indicated having such difficulties, which can negatively influence academic performance and contribute to the level of perceived stress.

Fig. 7 highlights the distribution of responses regarding communication and provision of details by professors regarding activities within and outside of the faculty. It is observed that a significant percentage of participants indicated that professors do not provide sufficient details, which can influence students' perception and contribute to the level of stress.
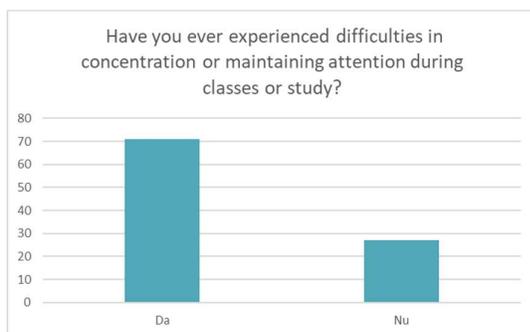
Fig. 6. Have you ever experienced difficulties in concentration or maintaining attention during classes or study?
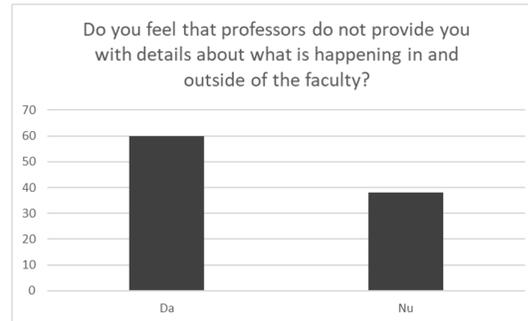

Fig. 7. Do you feel that professors do not provide you with details about what is happening in and outside of the faculty?

Fig. 8 presents the distribution of responses regarding students' comfort in discussing their mental health issues with professors.

The results show that a significant percentage of participants indicated that they do not feel comfortable having such discussions with their professors, which can be a negative aspect for accessing the necessary resources and support for students' mental health.

Fig. 9 illustrates the distribution of responses regarding the discomfort caused by students not passing certain subjects and how this can influence their emotional balance.

The results show that a significant percentage of participants indicated experiencing such feelings of discomfort and emotional imbalance, thus emphasizing the importance of a sensitive approach from educators in managing these situations.
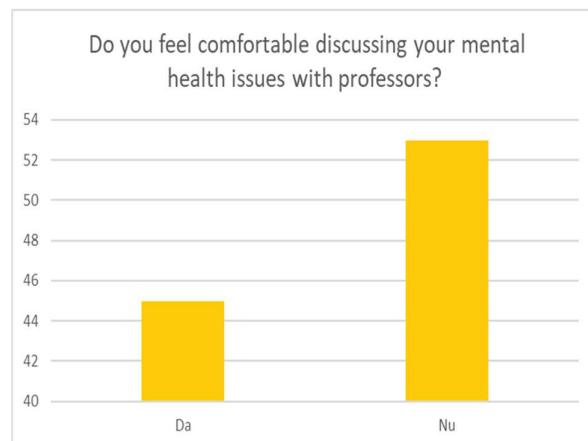
Fig. 8. Do you feel comfortable discussing your mental health issues with professors?
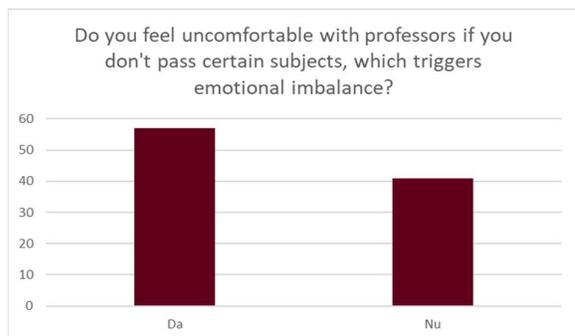
Fig. 9. Do you feel uncomfortable with professors if you don't pass certain subjects, which triggers emotional imbalance?

5. CONCLUSIONS

Because students do activities that can be considered "work," they are at risk of developing mental health disorders and academic burnout. The development of academic burnout can leave students vulnerable to high levels of stress that can negatively impact their psychological well-being and resilience.

Through the investigation and optimization of occupational risk assessment and related objectives, this research has provided a solid foundation for supporting the working hypothesis and for further development of research in this direction. In the context of increasing concerns regarding occupational health and safety, the results obtained demonstrate the importance of effective occupational risk assessment and the necessity of applying appropriate methods and techniques in this regard.

The emotional and psychological impact of the workload, the pressure to perform and the transition to a new environment can generate stress and anxiety. Some students experience emotional difficulties related to balancing their academic and personal lives. As students adapt to university challenges, develop their abilities to cope with difficulties, become more resilient and autonomous, once students overcome initial challenges and improve their skills, their confidence in their own strengths can increase, contributing to personal development.

The key findings of the research are related to the following:

- Stress Sources - Many students experience stress related to career choices and academic decisions;
- Influencing Factors - Academic stress is influenced by workload, grade pressure, and relationships with professors;
- Impact - Stress and adaptation to the university environment can affect students' mental health and academic performance.

Therefore, this research represents not only a significant contribution to understanding and optimizing occupational risk assessment but also a solid foundation for further development in this research field.

The implications of this work are particularly relevant for promoting a safe and healthy work environment, both for employees and employers, and for improving practices and policies in the field of occupational health and safety. Thus, this research offers a significant contribution not only at the theoretical but also at the practical level, by providing arguments and recommendations for optimizing the assessment and management of risks related to psychosocial risks that arise during the transition from high school to university education.

Finaly, as a general recommendation we suggest that there is a need for more effective educational and mental health policies and services to support students in higher education institutions

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Analiza impactului stresului asupra sănătății mintale a elevilor

Lucrarea de cercetare se concentrează pe analiza nivelului de stres experimentat de către studenții din facultate și influențele multiple asupra stării lor mentale. Investigăm impactul adaptării la mediul universitar, presiunea academică, procesul de evaluare și relația cu profesorii asupra nivelului de stres și sănătății mentale a studenților.Utilizând metode de cercetare cu chestionare, ne-am propus să evaluăm variabilele asociate cu stresul academic și psihologic în mediul universitar. Rezultatele acestei cercetări au potențialul de a aduce înțelegere și claritate în ceea ce privește nevoile și provocările studenților, ajutând la dezvoltarea de politici și servicii educaționale și de sănătate mentală mai eficiente și adaptate specificului fiecărei instituții de învățământ superior. Prin identificarea factorilor de stres și a strategiilor de gestionare a acestora, această lucrare oferă o contribuție semnificativă la promovarea bunăstării și succesului academic al studenților.

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