

# Stress Congress 2022

On October 8, 2022, the work of the 5th online edition of Stress Congress 2022 was completed, with the theme: "**Stress, multidisciplinary challenge in the new medical, social, economic and military paradigms**" - a national event with international participation, organized annually under the High Patronage of the University of Medicine and Pharmacy "Carol Davila" Bucharest, in collaboration with the Ana Aslan International Foundation.

## STRESS CONGRESS 2022:

- 3 days of congress (6-8.10.2022), with over 24 hours dedicated to the multidisciplinary analysis of stress, including from the perspective of capitalizing on the results of scientific research and innovation;
- More than 60 Romanian and international lecturers from various specialties and areas of expertise;
- More than 500 participants: doctors from various specialties, psychologists, students, pharmacists, nurses and other interested persons;
- Interdisciplinary approach to stress and a complex program of excellence, structured in 17 panels, three round tables, a webinar/hackathon, an e-poster contest for doctors/researchers:
- 3 round tables aiming at: Geopolitical and health context in stress management and public policies, CBD: innovative approaches in stress management and contradictions; The importance of medical recovery.
- 17 panels, which ensured the correlation between stress and various pathologies, between medicine, psychology, scientific research, innovation, including the new medical, social, economic and military paradigms, with themes regarding: stress, in the new socio-medical paradigms, stress in the new military paradigms, stress, in the new medical paradigms, oncological stress, post Covid stress state, classic and alternative perspectives in dealing with stress, the importance of health workers in the long-term care of the elderly, specific stress in different medical specialties, recovery medical and its importance for quality of life and longevity, stress in neuroendocrinology;
- special session dedicated to scientific research, in which information of interest, funding opportunities, difficulties, including proposals for improving procedures, best practices, ongoing research programs, etc. were presented, including a hackathon with news and best practices in research, the presentation of fundamental and applied research results being a source of scientific progress and dynamics;
  - An e-poster competition for doctors/researchers, with 5 winning doctors/researchers with e-posters on:
  - The use of Machine Learning in the early detection of psychiatric symptoms in

- Parkinson's disease;
- Drug hypersensitivity reactions in the elderly: diagnostic and therapeutic features;
  - Stress as a challenge among medical personnel in a pandemic and military context;
  - Stamina - intelligent support for stress management in the pandemic;
  - The impact of professional stress in triggering cognitive disorders;
  - The impact of physical activity on the intestinal microbiota with implications in the healthy aging process.
- A framework for ensuring the expression of the vision, performance and cooperation of the university/academic community, with professionals involved in the medical field, in scientific research and in innovation, including the coordinated, persistent and, above all, sustainable effort to corroborate novelties and good practices in these fields at national, European and international level, which contributed to increasing the scientific and educational value of the event and strengthened the relational, cross-border cooperation component of health and research professionals;
  - An open platform for dialogue and for the promotion of values and in-depth knowledge, verified information, in a constructive form and academic freedom, inducing excellence and a synergistic effort, for a sustainable future in the field of education, medicine, scientific research, innovation, in the context of new medical/social paradigms.

More information: <https://stresscongress.org/editii/#2022>

We present here a selection of the presented works.

## ***A special Stress Topic: The Languishing phenomenon in the context of post Covid Status***

### **Prof. Alexandru Vlad Ciurea MD. PhD.,**

Chief of the Neurosurgery Department and Scientific Director of Sanador Clinical Hospital, Bucharest, Romania; Professor of Neurosurgery at “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania; Honorary Member of Romanian Academy, Medical Science Section;

### **S.L.Dr.Dan Bentia,**

Neurosurgeon on the Department of Neurosurgery at Sanador Clinical Hospital, Bucharest, Romania; Lecturer of Neurosurgery at “Titu Maiorescu” Faculty of Medicine, Bucharest, Romania;

**Stud. Med. Horia Petre Costin and Stud. Med. Razvan-Adrian Covache-Busuioc**  
General Medicine at “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

The Coronavirus pandemic has brought to the foreground a new emotional and special stress state called Languishing. This feeling was provoked by a chronic fear produced by the Coronavirus since it represented such a sudden change of our daily life habits.

The Coronavirus realized pressure on both medical personnel as well as on every person since it signifies a real danger for our health. Moreover, this new virus affected the economy and the entire field of work, population were fired and the everyday life became harder and harder for most of the people. All of these criteria determined a great stress concerning the nervous system.

The symptoms of Languishing are represented by a feeling of helplessness and a lack of desire to set new goals and targets since there were long quarantine periods for so many people. Therefore, Languishing is positioned between depression and a flourishing emotion, altering people’s daily lives for long periods of time. Since the Coronavirus pandemic put under pressure the health, income and daily habits of everyone, the nervous system was directly affected by this great stress leading to a negative way of thinking about life and an absence of desire.

Although the term “Languishing” gained popularity during the 21st century, this emotional state was not presented for the first time in our recent times. The first accounts of these feeling date back to Ancient Greece and bore the name of "Acedia", which translates to “a lack of care”.

The entire fight against the viral infection Covid-19 and then to limit and prevent the phenomena of dysfunction of the nervous system post covid 19, is carried out through the multiple preventive measures and through the correct and sustained treatment on all levels, in the framework of the appearance of this condition which can affect all endothelium of the body. The stress on the nervous system created by Covid-19 must be limited based on the multiple knowledge accumulated in the entire literature.

However, the best treatment for Languishing is considered to be an open discussion with friends and family, without trying to hide or deny this negative emotional state which became more and more common since the Coronavirus pandemic.

***Peace within ourselves! Wellbeing as a fountainhead nurturing  
inward and outward growth***

**Mihaela-Viorica Ruşitoru,**

Associate Researcher University of Helsinki (Finland) and Associate Professor IUTAM Montréal (Canada)

**Background:** Demographic and socio-educational challenges are generating several major conceptual and practical transformations in disciplines such as education, health sciences or gerontology. In the context of secularisation, pandemic and geo-political conflicts, research and action in wellbeing, education, and mental health is currently required.

**Methodology:** Lifelong learning became an economic imperative of our societies. Nevertheless, being educated throughout life must also be founded in a social and personal manners. Thus, the main aim of our contribution is to analyse what is the specificity of Lifelong learning nowadays and how could people acquire wisdom, wellbeing, and other fundamental values for ensuring a peaceful life?

**Main results:** To give an answer to this research question, we will realise a comparative analysis of the norms learning and the acquisition of wisdom. The theories of wisdom and motivation (Lemieux, 1992 and 2001), educational reciprocity (Labelle, 1996, 2017) or differentiated pedagogy (Meirieu, 2016) highlight the link between Lifelong learning and mental and spiritual health.

**Conclusions and discussions:** Education and training approaches for people of all age should be redesigned to incorporate the procurement of wisdom, wellbeing, and fundamental values. But a question remains: are our societies able to instigate for public policies focused on wellbeing, wisdom, and Lifelong learning from the axiological perspective?

**Operational stress impact on health status in military personnel implicated in external missions. The evolution of some biomarkers –  
study on cardiovascular risk**

**S.L. dr. Laura Maria Condur, University "Ovidius" Constanța, Romania**

**S.L. dr. Sergiu Chirilă, University "Ovidius" Constanța, Romania**

**Drd. dr. Isabela Oana Stoica, Military Emergency Hospital Constanța, Romania**

**Student Filip Berariu, University of Medicine and Pharmacy Grigore T. Popa, Iași, Romania**

Stress within the military environment is a reality, the specific features of this type of organization being undeniable sources of occupational stress. Participating in foreign missions increases stress levels, having the potential to influence health status. Therefore, the periodic evaluation of cardiovascular and metabolic risk factors becomes an absolute necessity, since cardiovascular diseases have an important weight in the existing morbidity.

**Methodology.** This observational study took place during 2020-2021. Cardiovascular risk biomarkers (total cholesterol, triglycerides, uric acid, blood glucose, ALT, AST) were evaluated in military personnel from the Romanian Naval Forces, who participated in foreign missions (n=204) or did not (n=100, control lot). Biomarkers were assessed both before the start of travel and after returning. For people in the control group, biomarkers were assessed approximately one year apart.

**Results.** Although there were no significant differences between the control group and military personnel on foreign missions, we found that approximately half of the study participants presented values of at least 200 mg/dl of total cholesterol, which may indicate a present cardiovascular risk. We also identified a higher percentage of people with blood sugar > 100 mg/dl among the control group (39% versus 5.8%). In the case of triglycerides, statistically significant decreases were found in the studied group. Regarding uric acid, among those with initially normal values, 8% presented elevated values upon return from the mission, while among those with elevated values upon departure, 88.2% returned with normal values. Regarding transaminases, it can be said that in the case of TGO there are significant differences between the groups (p=0.016), with the presence of obviously increased values in the control group, and for TGP it was found that among those who went on the mission with values above the upper limit of normal, 78% returned with normal values. It is important to note that 2/3 of the military personnel on foreign missions are under 40 years of age, thus a young segment of the population.

**Conclusions/discussions.** Military personnel have an increased cardiovascular risk, generated by exposure to multiple risk factors, starting with the stress involved in the military environment, on the one hand, associated with everyday stress and lifestyle, on the other.

The stress caused by participating in foreign missions does not influence the evolution of cardiovascular risk markers, compared to carrying out specific activities in the country.

The complete, integrated assessment, from a physical, biochemical, psychological and nutritional point of view, followed by the necessary counseling at each level, we believe becomes essential for the prevention of cardiovascular disease and the reduction of risk in this occupational category.

## ***Health Promotion, Disease Prevention and Treatment in Older Adults by Physical Activity and Exercise***

**Georgiana Tache, MD; PhD**

Physical Medicine and Rehabilitation senior specialized medical doctor, Floreasca Emergency Hospital; Lecturer, University of Medicine and Pharmacy "Carol Davila", Bucharest Romania

Human ageing is inevitable and irreversible; affecting every physiological function of our body. On top of this, our lifestyle, dependents on the levels of our physical activity and exercise, can lead to decline in muscle function and cardiorespiratory fitness; and, in consequence, leads to an impaired capacity to perform daily activities and maintain independent functioning in older adults.

Physical activity acts as a preventive strategy for chronic diseases (cardiovascular, diabetes, osteoporosis, metabolic syndrome, and obesity), functionally improves the musculoskeletal system, prevents neurodegenerative diseases, and maintains mental health and quality of life; reducing mortality. It alleviates characteristics of ageing related frailty and increases cognitive function, thus improving functional capacity in older adults. In these pathological situations, physical activity, sport, and structured exercise become a therapeutic agent.

Physical activity can thus become an alternative to pharmacological treatment, playing a leading role in health promotion, and in the prevention and treatment of diseases in older adults. Prescribing physical exercise can be approached in terms of modalities and specific doses. This presentation emphasizes the impact that physical activity has on maintaining health, as well as on the prevention and treatment of diseases in older adults.

## ***Technostress among medical staff and elderly patients***

**Sorina Maria Aurelian**, University of Medicine and Pharmacy "Carol Davila", Bucharest Romania, Clinic of Geriatric in Chronic Hospital "Sf. Luca", Bucharest Romania

**Bogdan Chiper**, University of Medicine and Pharmacy "Carol Davila", Bucharest Romania

**Costina Gita**, University of Medicine and Pharmacy "Carol Davila", Bucharest Romania, Clinic of Geriatric in Chronic Hospital "Sf. Luca", Bucharest Romania

**Monica Gidei**, University of Medicine and Pharmacy "Carol Davila", Bucharest Romania

**Ruxandra Mihalache**, University of Medicine and Pharmacy "Carol Davila", Bucharest Romania, Clinic of Geriatric in Chronic Hospital "Sf. Luca", Bucharest Romania

**Andreea Zamfirescu** University of Medicine and Pharmacy "Carol Davila", Bucharest Romania, Clinic of Geriatric in Chronic Hospital "Sf. Luca", Bucharest Romania

**Ana Capisizu**, University of Medicine and Pharmacy "Carol Davila", Bucharest Romania, Clinic of Geriatric in Chronic Hospital "Sf. Luca", Bucharest Romania

**Introduction:** Healthcare staff, compared to other professions, have an increased probability of experiencing the technostress at work. Knowledge about the causes and severity of technostress and the strategies that healthcare deciders use to manage it is limited.

**Methodology:** Current demographic changes have led to an increase in interest in the development of smart technologies designed to support the current health needs of elderly users, this field being considered of vital importance in the long-term sustainability of national health systems worldwide.

**Results:** With the development of digital means of communication, the introduction of methods of interaction with patients and the efficiency of communication with them was a focus. Through online software platforms, remote consultations with patients can be carried out, with benefits in particular in the requirements to confirm drug therapy according to some measurable parameters. Their intelligent emergence has led to the emergence of a new concept of personalized intelligent environment, capable of securing technologies through sensor networks or continuous remote monitoring. The accelerated growth of medical digitization causes a stress in the medical staff who must rely on these technologies must rely on these for medical decisions.

**Conclusions:** The medicine of the future includes the adaptation of all professional categories as well as patients to the rapid development of digitalization. Future generations will be educated from an early age for this adaptation without adding stress, but there will be fewer and fewer professionals who will rely their decisions based only on their own knowledge and instinct.