

83rd INTERNATIONAL SCIENTIFIC CONFERENCE ON MEDICINE AND HEALTH SCIENCES OF THE UNIVERSITY OF LATVIA: MATERNAL, CHILD HEALTH AND NEUROLOGY

On 25 April 2025, the University of Latvia in Rīga is hosting the International Scientific Conference on Medicine organised within the frame of the 83rd International Scientific Conference on Medicine and Health Sciences of the University of Latvia (see for details: Leja, M., Stonāns, I. 83rd International Scientific Conference on Medicine and Health Sciences of the University of Latvia: Basic Medical Science and Pharmacy, p. 19, this issue).

The section “Maternal, Child Health and Neurology” brings together research dedicated to issues in maternal and paediatric health, as well as advancements in neurological sciences.

Several abstracts in this collection focus explicitly on maternal and infant health, underlining the complex interplay between physical, psychological, and environmental factors. Topics include the psychological impact of childbirth experiences, specifically examining how different modes of delivery influence maternal self-efficacy in breastfeeding and the development of emotional bonding with newborns. Further research explores postpartum depression, identifying critical maternal health indicators and psychological states associated with this prevalent and impactful condition.

In paediatric health, substantial attention is directed toward the early-life microbiome, recognising its profound influence on functional gastrointestinal disorders in infants. Researchers have also addressed the accessibility and utilisation of multisensory therapy for children with developmental disorders, stressing the importance of early, comprehensive therapeutic interventions to improve developmental outcomes.

Several studies address current clinical problems in paediatrics. One contribution is the analysis of histological patterns and clinical presentations of celiac disease in Latvian paediatric populations, providing insights into diagnostic complexities. Another study evaluates the epidemiological and reproductive risk factors associated with endometriosis, emphasising the need for awareness and preventive strategies to mitigate reproductive health burdens among women.

Neurological research within this section presents insights into disease mechanisms, diagnostic tools, and therapeutic interventions. Investigations into epilepsy reveal specific expression patterns of sodium channel NaV1.2 in human brain tissue, contributing to an improved understanding of epilepsy pathology and highlighting potential therapeutic targets. Studies on the side effects of PCV chemotherapy in central nervous system tumour patients address the crucial balance between treatment efficacy and quality of life, offering significant implications for clinical management.

Advances in diagnostic imaging, particularly the reliability of MRI in evaluating treatment responses in brain tumour patients, demonstrate the ongoing refinement of clinical assessment tools essential for precision medicine. Genetic research features prominently, illustrating associations between specific polymorphisms, such as CXCL12 and TNF- α variants, with increased disease invasiveness and susceptibility in conditions like pituitary adenomas and multiple sclerosis, respectively, notably among female patients.

Finally, translational research, exemplified by studies employing Alzheimer’s disease mouse models, evaluates novel therapeutic approaches, such as virus-like particle-based vaccines, signalling promising directions for Alzheimer’s disease prevention and management.

Daiga Šantare

EFFECTS OF STRESS ON LEARNING MOTIVATION AND VITALITY OF NURSING STUDENTS

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Background. Stress is a common experience among students in academic activities, and it can have a dual effect — either positive or negative — on a student's physiological and psychological well-being. Due to high academic demands, frequent exams, limited preparation time, students' disorganisation, and poor time management, stress often arises. This can contribute to inhibited cognitive functions, a lack of understanding, and a reduced stimulation of interest. Consequently, concentration, memory, and motivation to learn are affected, making it more difficult to absorb new knowledge and cope with exams.

Aim. This study aimed to investigate the effect of stress on the motivation to learn and the vitality of nursing students.

Methods. After receiving approval from the Ethics Committee of the Institute of Health Sciences of Vilnius University, Faculty of Medicine, a quantitative study was conducted using an anonymous online questionnaire survey. The study applied the Perceptions of Academic Stress Scale [1], the Student Academic Motivation Scale [2–4], and the Subjective Vitality Scale [5]. Statistical data analysis was performed using IBM SPSS Statistics 29.0.2.0. The study involved 188 students from the first to fourth year of the Nursing study programme at Vilnius University.

Results. The stress level of nursing students was moderate, with the highest stressors being the study workload and exams, particularly among second-year students ($p = 0.02$). Stress was caused by uncertainty, perceived high study load, lack of self-confidence, fear, anxiety about the results, and exam stress. Motivation for learning was slightly above average, with extrinsic identified motivation being predominant. Subjective vitality was average, with no statistically significant differences between courses ($p \geq 0.05$). It was

found that as stress increased, amotivation increased ($p < 0.05$), and motivation decreased ($p < 0.01$); as vitality increased, motivation to learn also increased ($p < 0.01$). Stress had no statistically significant relationship with subjective vitality ($p \geq 0.05$).

Conclusion. The study showed that nursing students experienced moderate stress during their studies due to study load and exams. Although their motivation to study was above average, their subjective vitality remained. This study revealed statistically significant relationships between stress, learning motivation, and vitality. Higher levels of stress were associated with lower motivation, whereas higher subjective vitality was associated with higher extrinsic and intrinsic motivation.

Acknowledgements. There are no conflicts of interest to declare.

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GENETIC LINK BETWEEN TNF- β RS2229094 AND MULTIPLE SCLEROSIS IN LITHUANIAN WOMEN

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Background. Tumour Necrosis Factor-beta (TNF- β), also known as lymphotoxin-alpha (LT- α), plays a complex role in multiple sclerosis (MS), contributing to both protective and harmful effects by modulating immune responses and promoting inflammatory lesions in the central nervous system. Numerous genetic variants have been associated with

susceptibility to MS, and variants located in genes involved in specific pathways, such as those affecting TNF- β , can contribute to the risk of MS. This study investigates the association between the TNF- β rs2229094 polymorphism and MS in a Lithuanian female population.