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**THE FIFTH MEDICAL CONFERENCE FOR
STUDENTS**

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ABSTRACT BOOK

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ORGANIZERS

Organizing Committee:

Dean of the medical faculty №2, prof. Kaliy V.V.

Young scientists of medical faculty № 2

Editors:

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Nemesh M.I. PhD, associate professor of the department of physiology and pathophysiology

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Rostoka-Reznikova M.V. PhD MD, associate professor of the department of internal medicine

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ASSESSMENT OF ALLERGEN SENSITIZATION AND RISK FACTORS AMONG MEDICAL STUDENTS

Anish Shakya, Aditya Sharma

mf2.anish.shakya@student.uzhnu.edu.ua

Uzhhorod National University

Medical Faculty №2

Department of internal medicine

Trustee of the paper: MD, PhD Ihnatko O.I., MD, PhD Lizanets N.V.

Introduction. Allergy is a growing global health concern, with its prevalence increasing due to environmental changes and modern lifestyles. Risk factors for developing allergies include family history, early exposure to allergens, pollution, and infections. Early diagnosis is crucial for effective management. Skin prick testing is widely used to identify allergens and diagnose immediate-type hypersensitivity reactions.

The aim of the study was to investigate the sensitization profile and identify allergy risk factors among fourth-year students of Medical Faculty No. 2.

Materials and Methods: The study involved 20 fourth-year students diagnosed with various allergies: 12 had perennial allergic rhinitis, 9 had seasonal allergic rhinitis, 8 had bronchial asthma, and 5 had food allergies. The participants included 9 females and 11 males. All underwent skin prick testing, evaluation of allergic rhinitis using the Rhinitis Control Assessment Test (RCAT), asthma control assessment, and food allergy evaluation with the DEFASE score. Allergy risk factors were also assessed.

The results: Skin prick tests revealed sensitization to house dust mites in 15 students, mold in 10, cat dander in 7, birch pollen in 9, mugwort in 7, and ragweed in 5. According to RCAT, 17 out of 20 students had poorly controlled rhinitis (scores below 22), indicating persistent symptoms such as nasal congestion, sneezing, and sleep disturbances. DEFASE scores indicated mild to moderate food allergy reactions, primarily gastrointestinal and skin-related, with no severe anaphylactic cases. The impact on quality of life was moderate, with some students reporting dietary restrictions and occasional anxiety. Asthma Control Test scores averaged 17, indicating insufficient asthma control. Allergy risk factors included atopic dermatitis in 8 students, a family history of allergies in 12 (one parent), and 6 (both parents).

Conclusions: This study highlights a high prevalence of allergic sensitization and insufficient symptom control among medical students. Common allergens included house dust mites, mold, and birch pollen. Many students had poorly controlled allergic rhinitis and asthma. Mild to moderate food allergies also affected quality of life. Risk factors, such as atopic dermatitis and a family history of allergies, emphasize the need for early screening and preventive strategies.

A Comparative Study of IQ Scores Among Vegetarians, Non-Vegetarians, and Eggetarians

KHUSHI SHARMA

(mf2.sharma.khushi@student.uzhnu.edu.ua)

BIJAY PANDEY

(mf2.pandey.bijay@student.uzhnu.edu.ua)

Uzhhorod National University

Medical Faculty №2

Department of Physiology and Pathophysiology

Trustee of the paper: PhD, associate professor Nemesh M.I.

Introduction: The influence of dietary habits on cognitive abilities has become an area of interest due to increasing awareness of nutrition's role in brain function. This study investigates whether there is a difference in IQ scores based on whether individuals follow vegetarian, non-vegetarian, or eggetarian diets.

Aim of the study: This study aimed to investigate whether there is a measurable difference in intelligence quotient (IQ) among individuals with different dietary habits—specifically vegetarians, non-vegetarians, and eggetarians.

Material and methods: A total of **20** participants aged **16 to 30** years were surveyed. Each participant completed a standardized IQ test and self-reported their dietary preference. Participants were grouped into vegetarians (n=12), non-vegetarians (n=6), and eggetarians (n=2). Mean IQ scores and standard deviations were calculated for each group.

Results: Vegetarians had a mean IQ of **104.67 (SD = 9.76)**, non-vegetarians had a mean IQ of **103.43 (SD = 17.20)**, and eggetarians had a mean IQ of **104.5 (SD = 9.19)**. Differences in IQ scores between groups were minimal, and the small sample sizes limit the statistical power of the findings.

Conclusions: The findings from this preliminary study indicate that dietary preferences—whether vegetarian, non-vegetarian, or eggetarian—do not show significant differences in IQ scores. Although vegetarians had a slightly higher mean IQ, the variation between groups was minimal and not statistically meaningful, largely due to the small and uneven sample sizes. These results suggest that diet alone is unlikely to be a strong independent factor influencing IQ. It is important to consider that intelligence is multifactorial, influenced by genetic, environmental, educational, and socio-economic factors beyond diet. Future research with larger, more diverse samples and controlled confounding variables is necessary to more definitively understand the complex interplay between diet and cognitive function.

Fe-deficient, megaloblastic, aplastic anemias peculiarities in Morocco and typological aspects contribution in their development

Ouassim Maatof, Hanan Mustafa

wassimmaatof88@gmail.com

Poltava State medical university

International faculty

Department of physiology

Trustee of the paper: candidate of medical sciences, assistant Tkachenko O., Sci D., Prof. Vesnina L.E.

Introduction. 47,5% inhabitants of Morocco, 83,5% in Yemen, 55,8% in Somalia, 53,7% in Pakistan, 48,1% in Sudan, 46,4% in Afghanistan and 42% in Djibouti had anemias in 2021 by WHO. FANCA gene mutations were described in Morocco as a representative of Northern African countries. 31% of children, 52,4% of the adults (70% of males and 50% of females from which 22,5% were pregnant) have anemias (S.Bakrim et al., 2023) in Morocco Northwest.

Aim of the study. To analyze modern literature on anemias' peculiarities in Morocco taking typological factors into consideration. We paid our attention to Fe-deficient, megaloblastic and aplastic anemias.

Materials and methods. Scientific literary sources for 2019-2025 on the topic studied.

Results. Fe-deficient anemia represents serious health issue, especially in developing countries (A. El Farouqi et al., 2022). This anemia is prevalent in the 25-30-year females, in part the pregnant ones, with rate 46% in comparison with 20-25-year females with rate 12%. Primigravida in 57% women had average-degreed anemia mostly while 3,85% of the patients had anemia severe course. New megaloblastic anemia was described in infants with expressed general weakness and irritability (H.Bennani et al., 2023). 56% of the patients with megaloblastic anemia comprised males and 44% - females aged 45-63 years (Y. Azzouz et al., 2023). Average age of the patients sick in pernicious anemia was 54 years with very wide ranges from 29 to 85 years (C. Hsain et al., 2024). Four novel mutations were found in Moroccan families out at Fanconi anemia (D.Yassamine et al., 2021), the most common form of inherited aplastic anemia.

Conclusions. Thus, indeed, anemias in Morocco represent significant health issue. Our very brief literary review demonstrates expressed ethnic, ethnic-gender, ethnic-age and ethnic-gender-age typological aspects contribution in their development.

Impact of allergies on quality of life among medical students

Diya Devgun, Chhaya Rana

mf2.diya.devgun@gmail.com

Uzhhorod National University

Medical Faculty №2

Department of internal medicine

Trustee of the paper: MD, PhD Ihnatko O.I., MD, PhD Lizanets N.V.

Introduction. Allergy is one of the most common chronic diseases in Europe, affecting up to 40% of the global population, with 15% of children suffering from allergic conditions. Allergic diseases are projected to rank second in prevalence worldwide, following mental health disorders.

Aim of the Study was to analyze the prevalence of allergies among 4th-year medical students and assess their impact on quality of life, including both physical and mental health, using the EQ-5D questionnaire, Visual Analogue Scale (VAS), and the Hospital Anxiety and Depression Scale (HADS).

Material and Methods: The study involved 55 foreign students from the 4th year of the Medical Faculty 2 in 2025, conducted with informed consent. A questionnaire was used to identify allergy symptoms, and quality of life was assessed using the EQ-5D and Visual Analogue Scale (VAS). Anxiety and depression levels were measured with the Hospital Anxiety and Depression Scale (HADS).

Results: 20 students (36%) were diagnosed with allergies, including 12 with perennial allergic rhinitis, 9 with seasonal allergic rhinitis, 8 with bronchial asthma, and 5 with food allergies. The average EQ-5D score was 2.4 ± 0.2 , indicating moderately impaired health status. The VAS score for quality of life was 66.1 ± 2.3 , suggesting good health overall but room for improvement. The HADS revealed moderate anxiety (10 ± 4.1) and mild depression (7 ± 3.2) levels among the students. A significant correlation was found between the presence of allergy symptoms and poorer quality of life outcomes, particularly in terms of physical and mental well-being.

Conclusions: This study highlights the significant impact of allergies on quality of life in medical students. The findings demonstrate that students with allergic rhinitis and asthma experience both physical and psychological challenges, as evidenced by moderate anxiety and mild depression levels.

The impact of Helicobacter pylori on the development and course of chronic obstructive pulmonary disease

Yanika Tyagi, Harsh

mf2.tyagi.yanika@student.uzhnu.edu.ua

Uzhhorod National University

Medical Faculty №2

Department of internal medicine

Trustee of the paper: MD,PhD Ihnatko O.I., MD,PhD Lizanets N.V.

Introduction: Chronic obstructive pulmonary disease (COPD) is a common respiratory disorder characterized by airflow limitation. Helicobacter pylori (H. pylori) infection has been suggested to influence the progression of various diseases, including respiratory conditions like COPD.

Aim of the Study was to assess the relationship between H. pylori infection and the progression of BA and COPD, including its effect on spirometry indexes and the presence of gastroenterological comorbidities.

Material and Methods: A retrospective analysis was conducted using medical records from the pulmonology department of the State-Owned Health Care Institution "Transcarpathian Regional Clinical Hospital of A.Novak" from September 2024 to January 2025. The study sample included 118 patients (57.6% male, 42.4% female, mean age 46.5 ± 2.5 years) diagnosed with bronchial obstructive syndrome. The H. pylori status was assessed, with 22.9% of patients testing positive for the infection.

Results: No significant differences were observed in the degree of pulmonary insufficiency, FEV1 values, or the Tiffno index between H. pylori-positive and H. pylori-negative patients in either the BA or COPD groups. Additionally, no significant associations were found between H. pylori infection and the prevalence of gastritis, GERD, or functional dyspepsia in either group. However, a significant association was found between H. pylori positivity and chronic bronchitis in patients with bronchial asthma, although this may have been due to the small sample size.

Conclusions: This study suggests that Helicobacter pylori infection does not have a major impact on pulmonary function or the severity of BA or mild to moderate COPD. However, a potential link between H. pylori infection and chronic bronchitis in BA patients warrants further investigation.

The Role of Medical Terminology in Managing Multisystem Diseases:

A Focus on HIV/AIDS and COVID-19

Rossi A. Hassad

Uzhhorod National University, Faculty of Medicine

Email: mf2.rossi.hassad@student.uzhnu.edu.ua

Trustee of the paper: Associate Professor Tetiana Vainagii

Introduction. Multisystem diseases present significant challenges in clinical practice due to their ability to affect multiple organ systems simultaneously. Effective diagnosis and management of such conditions require clear, precise, and standardized communication among healthcare professionals from diverse specialties. Medical terminology serves as the foundation for this communication, enabling accurate documentation, interdisciplinary coordination, and improved patient care. This is especially important in global health crises such as HIV/AIDS and COVID-19, where timely information sharing and clarity of understanding can directly impact patient outcomes.

Aim of the Study. This study explores how accurate medical terminology supports effective diagnosis and interdisciplinary coordination in the management of HIV/AIDS and COVID-19.

Materials and Methods. This analysis encompasses a literature review, case studies, and interdisciplinary comparison, guided by Vygotsky's Sociocultural Theory, which frames terminology as a cognitive tool. Medical language, in this context, facilitates shared understanding, clinical reasoning, and collaboration across specialties.

Results. Medical terminology plays a central role in clinical practice by supporting diagnostic reasoning, including differential diagnosis, guiding treatment decisions, and enabling effective communication among healthcare professionals. Terms such as *cytokine storm*, *pneumonia*, and *neuropathy*, as well as clinical markers like *CD4 count* in HIV and *D-dimer* in COVID-19, help clinicians describe symptoms, assess severity, and make informed decisions. Terminology also connects specialists such as cardiologists, pulmonologists, and neurologists through a shared language, fostering more coordinated care. Simple and clear explanations of terms can help patients understand their condition, reducing uncertainty and anxiety. Additionally, standardized terminology is key to consistent and accurate data reporting for public health monitoring, especially in regions with limited healthcare access. Shared language strengthens both local and global strategies.

Conclusions. Standardized medical terminology is essential for the effective management of multisystem diseases such as HIV/AIDS and COVID-19. It enables accurate characterization of pathological processes and fosters interdisciplinary coordination. Consistent use of terminology enhances clarity in medical records, improves patient comprehension, and ensures reliability in public health reporting. In both clinical and public health settings, precise terminology is fundamental to clinical decision-making, diagnostic accuracy, and coordinated care.

Comparative Analysis of Surgical Techniques for Inguinal Hernia Repair: Lichtenstein vs. Classic Non-Mesh Methods vs. Laparoscopic TAPP

Bijay Pandey, Shubham Kumar Pandey

mf2.pandey.bijay@student.uzhnu.edu.ua

mf2.shubhamkumar.pandey@student.uzhnu.edu.ua

Uzhhorod National University

Medical faculty no.2

Department of Surgical diseases

Trustee of the paper: associate professor Valeriy Volodymyrovych Mashura

Introduction: Inguinal hernia repair is one of the most common surgical procedures worldwide. The primary techniques include the open Lichtenstein repair (mesh-based), classic non-mesh methods (e.g., Bassini, Girard, Postempskiy), and laparoscopic transabdominal preperitoneal (TAPP) repair. The choice of surgical technique significantly impacts patient outcomes, including complications, recurrence rates, postoperative pain, and recovery time. Each method has unique advantages and challenges, with ongoing debates about their efficacy in terms of short- and long-term outcomes.

Aim of the study: To compare postoperative complications (seroma, hematoma), recurrence rates, postoperative pain, cost-effectiveness, and recovery outcomes among these techniques.

Material and Methods: The subject of this study were 241 patients (male-187 and female-54) who underwent inguinal hernia repair between 2023 and 2024. Out of 241 surgeries done, Lichtenstein method repair-154, classic non-mesh methods (e.g., Bassini, Girard, Postempskiy), -26, laparoscopic TAPP-61. Data were analyzed using Chi-square, ANOVA test, Fisher's exact test and Statistical Analysis. VAS (Visual Analog Scale) pain scores at 24h, 1 week, 1 month. A comprehensive review of studies published between 2018 and 2024 was conducted using databases such as PubMed, Gavin publishers, and ResearchGate. Studies were selected based on relevance to different surgical procedures for inguinal hernia repair.

Result: The result shows that there was significant statistical differences between different Surgical techniques used in inguinal hernia repair. firstly, complications: Lichtenstein method had most numbers of seroma and hematoma complications after surgery ($p < 0.01$), Secondly, post operative pain on VAS: classical non mesh method (6.0 ± 1.5), Lichtenstein (5.2 ± 1.3) Laparoscopic TAPP (4.0 ± 1.1) ($p < 0.05$). Thirdly, Recurrence at one year: Classic non mesh $\approx 19\%$, Lichtenstein $\approx 5\%$, Laparoscopic TAPP $\approx 1\%$ ($p < 0.05$). fourthly, cost comparison- most expensive is Laparoscopic TAPP ($\$1,800 \pm \200) then Lichtenstein ($\$1,200 \pm \150) then Classic non-mesh ($\$700 \pm \100) ($p < 0.01$), fifthly, Recovery Time: TAPP has least recovery time- 7–14 days, Lichtenstein- 14-21 days, Non-mesh: 21–28 days ($p < 0.01$)

Conclusion- In this 2023-2024 cohort, laparoscopic TAPP repair was associated with fewer seromas, lower one-year recurrence, less acute pain, and faster recovery than both Lichtenstein and classic tissue repairs, without an increase in hematoma formation but was most expensive technique. By evaluating complications, recurrence, pain, recovery, and cost-effectiveness, the study aims to guide surgeons in selecting optimal techniques based on patient and hernia characteristics. The findings will contribute to personalized surgical care and inform international hernia repair guidelines.

References:

Comparative analysis of different surgical approaches for recurrent inguinal hernia: a single-center observational study

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11164657/>

Comparison Between Techniques of Inguinal Hernia Repair: Retrospective Study

<https://www.gavinpublishers.com/article/view/>

Comparative analysis of the surgical treatment of inguinal hernia by adapting the transabdominal pre-peritoneal laparoscopic technique (TAPP) without mesh fixation with the traditional open Lichtenstein technique

<https://www.researchgate.net/publication/373668172>

One Virus, Many Voices: HPV Insights Across Cultures

Diya Devgun, Arathi Aruldas

Devgundiya123@gmail.com

Uzhhorod National University

Medical Faculty No. 2

Department of Family Medicine and outpatient care

Trustee of the paper: Pavlo Kolesnyk MD, PHD

Introduction: With the increasing visibility and recognition of cervical cancer and human papillomavirus (HPV), it has become essential to determine whether the population has

gained knowledge about this virus and its link to cervical cancer, especially among young women. According to the WHO, HPV vaccination can prevent cancers, with cervical cancer being the most common cancer caused by HPV. The highest prevalence of cervical HPV among women is in sub-Saharan Africa (24%), followed by Latin America and the Caribbean (16%), Eastern Europe (14%), and Southeast Asia (14%). In some countries, it is included in the state-supported vaccination list, but in countries where prevalence is the highest, it is still an alternative and not supported by the government. This study focuses on the awareness and uptake of preventive measures in young female students of Uzhhorod National University (UzNU).

Aim of the study: This study investigates the awareness and vaccination status of female students studying in Uzhnu. Our goal is to assess the level of HPV awareness and determine whether women who are aware of it have received the HPV vaccine. The study further helps us to explore the barriers and motivators influencing vaccination decisions.

Materials and Methods: A questionnaire was created using Google Forms. It was designed based on prototype questionnaires used in previous studies, piloted and distributed among 57 female students of Uzhnu, comprising 29 Ukrainian, 26 Indian, 1 Sri Lankan-British and 1 Hungarian. The Survey included closed-ended questions on HPV awareness and vaccination status, as well as open-ended questions regarding reasons for receiving or not receiving the vaccine. The responses were reviewed, and the qualitative data have been categorised by the researchers after the data saturation. The consensus between the experts has been achieved in the end. Descriptive analytic statistics has been done for the quantitative data.

Results: The results indicate high awareness of HPV (96.5%) but a low vaccination uptake (19.3%). Despite this, 91.2% of participants expressed a willingness to be vaccinated in the future. Key motivators for vaccination included physicians' recommendations, parental support, self-awareness and school programs. Barriers to vaccination were primarily misinformation, cost, myths and missed opportunities.

Conclusion: Despite the awareness, vaccination among participants (19.3%) remained low, highlighting a critical gap between knowledge, motivation and actual preventive performance. Therefore, interventions are needed to bridge this gap. It is essential not only to educate young women but to raise awareness across the broader population, enabling individuals to recommend the vaccine to others.

Complex impact of methylene blue and coherent and incoherent low-energy radiation on the growth of *Staphylococcus aureus*

Tejas Kiran Dhanshetty, Shivam Bhardwaj

mf2.tejas.kiran@student.uzhnu.edu.ua

mf2.shivam.bhardwaj@student.uzhnu.edu.ua

Uzhhorod National University

Medical faculty

Department of microbiology, virology and epidemiology with the course of infectious diseases

Trustee of the paper: PhD Valeriy Pantyo

Introduction. Although antibiotics still play a key role in the treatment of infectious diseases, the widespread resistance has led to the search for and study of some alternatives to antibiotics. Due to the action on a wide range of both Gram-positive and Gram-negative bacteria, fungi, and viruses, and the absence of side effects, promising is the use of photochemical methods, in particular antimicrobial photodynamic therapy (APDT).

Aim of the study: to determine the impact of photosensitizer methylene blue and low-energy laser, and PILER-radiation of the red spectrum on the growth intensity of clinical isolates *Staphylococcus aureus*.

Material and method. Impact of photosensitizer 0.1% water solution of methylene blue and low-intense laser radiation ($\lambda = 660$ nm) and PILER-radiation (Polarized Incoherent Low-Energy Radiation) with the red light filter ($\lambda = 570-660$ nm) on the growth of *Staphylococcus aureus* clinical isolates was studied. The power density of both sources of radiation was 40 mWt/cm². To establish the antimicrobial effect of APDT, a standardized inoculum of microorganisms was prepared with the subsequent addition of 0.1% methylene blue water solution and, after a 20-minute dark phase, irradiation with a duration of 20 minutes.

Results. It has been established that APDT, with the use of methylene blue and both coherent (laser) and incoherent (PILER) radiation, caused a significant decrease in the growth intensity of investigated strains of microorganisms. Thus, the number of microbial colonies after APDT was reduced by 63.8-77.1%, compared to the control group ($p < 0.05$). The impact of irradiation alone did not cause statistically significant changes in the growth intensity of the studied strains. Also, the use of methylene blue caused a decrease in colonies number by 35.5-47.2%, compared with the control group.

Conclusions. The complex impact of methylene blue and both coherent and incoherent radiation causes pronounced antimicrobial action on investigated strains of *Staphylococcus aureus*, which is much higher compared to the influence of specified factors when used alone. Using coherent and incoherent radiation, similar results were obtained, which allows us to state that the most important parameters of radiation are the wavelength and power density.

RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND PSYCHOLOGICAL WELL-BEING

DEEPTI SHARMA

(mf2.sharma.deepti@student.uzhnu.edu.ua)

Uzhhorod National University

Medical Faculty No-2

Department of physiology and pathophysiology

Trustee of the paper: PhD, associate professor Palamarchuk O.S.

Introduction: Emotional intelligence has been defined as ability to be aware of, understand and manage one's own emotions, as well as emotions of others. Psychological well-being refers to feeling good mentally, being satisfied with life, and handling stress well. Understanding the relationship between both can provide valuable insights for improving psychological health and quality of life as it has been suggested that individuals with higher Emotional intelligence tend to experience better mental health.

Aim of the study: To find relationship between Emotional intelligence and psychological well-being.

Material of the study: 2 survey forms containing MCQ's were distributed electronically to all. One was 'PSYCHOLOGICAL GENERAL WELL-BEING INDEX' (PGWBI) by Harlod Dupuy, 1984 containing 22 questions, a self-report tool measuring recent emotional states and life satisfactions. Another form named 'THE QUICK EMOTIONAL INTELLIGENCE SELF-ASSESSMENT' adapted for the San Diego City College MESA program from a model by Paul Mohapel it measures 4 components of EQ (emotional awareness, emotional management, social emotional awareness and relationship management), with scores ranging from 0 to 40. The collected data was analyzed using "Minitab 17" to examine the correlation between Emotional Intelligence and psychological well-being.

Results: A total of 50 responses received aged (18-25 years). The analysis showed a positive relationship between emotional intelligence and psychological well-being. Among all EQ components, social awareness had the highest mean score. There was a statistically significant result between 2 components of Emotional intelligence: EMOTIONAL AWARENESS with psychological well-being ($r=0.32$, $p=0.02$), and EMOTIONAL MANAGEMENT with psychological well-being with ($r=0.29$, $p=0.036$).

Conclusion: This study suggests a positive relationship between emotional intelligence and psychological well-being, especially in emotional awareness and emotional management. While social awareness showed the highest mean score, it lacked significant correlation. The relationship is likely shaped by various individual and environmental factors. Although further research is needed to provide more insight. Still, the findings support the value of emotional regulation skills in promoting mental health and suggest that enhancing emotional intelligence may benefit psychological well-being.

Respiratory system indices distinguishing features in Pakistan and India and contributing factors into pathology development

Hanan Mustafa, Yassir Bourtal
hananmustafa8450226@gmail.com

Poltava State medical university

International faculty

Department of physiology

Trustee of the paper: candidate of medical sciences, assistant Olena Tkachenko

Introduction. Pakistan and India are undergone to increase in respiratory system pathologies. Pneumonia was prevalent twice in Pakistanian females with rate 45% (H. Sharif et al., 2023). About 60% of children were aged 1-5 years. Broncholithiasis was diagnosed in 12,2% of Pakistanian children 5-9 years by age. The majority of the sick were from Pathan ethnicity (near 53%) followed by Sindhi (approximately 24%), and near 95% of all the sick were from slum areas. Approximately 2% of all the Indians have bronchial asthma (S. Singh et al., 2022).

Aim of the study. To analyze modern literature on respiratory system peculiarities in the Pakistanians and Indians in norm and the factors contributing into pathological conditions patterns.

Materials and methods. Scientific literary sources for 2020-2025 on the topic studied.

Results. Spirography was and still remains rather informative investigative method to assess lungs' functions in norm and pathology. There is indices' dependence on the examined height and age. Pulmonary volumes were rising directly with height from Pakistanian children to adolescents with a strong positive correlation between their height and lungs' indices variables in the Karachians' population. The Western Indian adult rural population has lower lungs volumes on average (D.M. Agarwal et al., 2024). The response variability was also in dependence on age in females. There are inter-population varieties of the spirogram indices received in India. PEFR (peak expiratory flow rate) received by pneumotachometry was also bigger in old males (P.K. Nayak et al., 2025).

Conclusions. Low economical status (living in slum areas), smoking, air pollutions, typological aspects, the examined height contributed in respiratory system increased morbidity in both countries. Indian scientists emphasized to advanced age, sepsis, septic shock, liver diseases and ventilation requirements as the independent predictors of non-recovery from respiratory system diseases (M.Rashid et al., 2022). Pakistanian geneticists mention hardened inheritance important at mucoviscidosis or cystic fibrosis (A. Syed et al., 2023).

Connection between social media addiction and fear of missing out with the level of serotonin in students

KHUSHI SHARMA

(mf2.sharma.khushi@student.uzhnu.edu.ua)

GARIMA BHATIA

(mf2.bhatia.garima@student.uzhnu.edu.ua)

Uzhhorod National University

Medical Faculty №2

Department of Physiology and Pathophysiology

Trustee of the paper: associate professor, PhD Nemesh M.I.

Introduction: With the growing dependence on digital platforms, social networking addiction and the Fear of Missing Out (FOMO) have emerged as significant psychological concerns, particularly among youth. Serotonin, a key neurotransmitter, is known to influence mood regulation, anxiety and impulsive behavior.

Aim of the study: To find a correlation between Social Networking Addiction, Fear of missing out (FOMO) and Serotonin levels.

Material and methods: A total of **56** participants aged **16 to 30 years** were assessed using three validated tools: the Social Networking Addiction Scale by M.G. Shahnawaz and Usama Rehman, the FOMO Scale by Przybylski, Murayama, DeHann and Gladwell (2013), and the Neurotransmitter Deficiency Questionnaire for serotonin by Reneu Health and Medispa.

Data were collected via structured multiple-choice questionnaires and analyzed to determine correlations among the variables. The data was analysed by using a statistical programme ‘MINITAB 17’.

Results: A statistically significant positive correlation was found between social networking addiction and Fear of Missing out ($r = 0.258, p = 0.04$), indicating that individuals with higher social media addiction tend to experience higher levels of FOMO. A significant correlation was observed between FOMO and serotonin levels ($r = 0.383, p = 0.004$), suggesting that individuals with greater FOMO tendencies may have lower serotonin levels. However, the correlation between social networking addiction and serotonin was positive but not statistically significant ($r = 0.163, p = 0.231$).

Conclusions: The findings reveal a meaningful interplay between digital behavioral patterns and neurochemical well-being. While social networking addiction is moderately linked to FOMO, it is FOMO that shows a significant inverse relationship with serotonin levels, pointing toward its potential neurobiological impact. This suggests that FOMO may not just be a psychological phenomenon, but also a marker of underlying emotional dysregulation possibly tied to serotonin deficiency. Given serotonin's role in mood stability, impulsivity, and anxiety, these results raise important questions about the long-term mental health consequences of unchecked FOMO and excessive digital engagement. Future research with biological validation and larger sample sizes is essential to explore causality and to develop targeted mental health interventions for young individuals navigating a hyper-connected world.

Smoking prevalence among hospitalized patients

Sabahat Ibrahim, Ajay Kumar

mf2.sabahat.ibrahim@student.uzhnu.edu.ua

mf2.kumar.ajay1@student.uzhnu.edu.ua

Uzhhorod National University

Medical Faculty №2

Department of internal medicine

Trustee of the paper: MD,PhD Ihnatko O.I., MD,PhD Lizanets N.V.

Introduction. The destructive effects of smoking are well known. Despite ongoing efforts to reduce smoking rates, over 1.1 billion people worldwide, about one-sixth of the global population, continue to smoke. Smoking is prevalent among hospitalized patients, contributing to high healthcare expenditures related to addiction treatments, amounting to billions of dollars annually.

Aim of the study: study of smoking prevalence among hospitalized patients

Material and methods. 69 patients of the Therapeutic Departments No.2 were interviewed at the Municipal non-commercial enterprise Central Citi clinical hospital of Uzhhorod city council in order to find out in them: the status of smoking, and of smoking cessation interventions in hospitalized patients.

All patients underwent an assessment of anxiety and depression levels using the HADS scale, as well as an evaluation of nicotine and alcohol dependence using the FTDN and AUDIT questionnaires.

Results. Among 69 respondents, the proportion of smokers is 71% (n - 49), of which 30% (n - 15) - former smokers, 70% (n - 34) - active smokers. FTDN test results showed $8\pm 2,3$ points. AUDIT test $9\pm 3,2$. HADS score: anxiety $11\pm 4,2$ and depression $8\pm 3,3$. It was found that no patients were counseled about smoking cessation, either on an outpatient or inpatient basis. After analyzing the literature data, it was found that in all health care delivery stages in Europe, counseling on smoking cessation is being offered and alternative treatment options are being proposed.

Conclusions. This study revealed a high prevalence of smoking among hospitalized patients, with 71% identified as smokers, including both current and former smokers. Anxiety and depression levels, assessed using the HADS scale, were moderate, suggesting psychological factors may contribute to smoking behavior. Additionally, nicotine and alcohol dependence, measured using the FTDN and AUDIT questionnaires, were present, indicating a complex relationship between substance use and mental health. A key finding was that no patients received smoking cessation counseling during hospitalization, highlighting a gap in support services. This underscores the need to integrate smoking cessation counseling into healthcare systems.

The Role of Obesity in Inguinal Hernia: An Analysis with patient BMI Data

Bijay Pandey, Shubham Kumar Pandey

mf2.pandey.bijay@student.uzhnu.edu.ua

mf2.shubhamkumar.pandey@student.uzhnu.edu.ua

Uzhhorod National University

Medical faculty no.2

Department of Surgical diseases

Trustee of the paper: associate professor Valeriy Volodymyrovych Mashura

Introduction :Inguinal hernia, characterized by the protrusion of abdominal contents through the inguinal canal, is a common surgical condition, particularly among adult males. Obesity, defined by a BMI ≥ 30 kg/m², increases intra-abdominal pressure, weakening the abdominal wall and predisposing individuals to hernia formation. Obesity is a global health concern and despite advances in surgical techniques, obese patients face higher risks of recurrence and complications.

Aim of the study: To investigate the relationship between BMI and inguinal hernia characteristics, recurrence rates, and postoperative outcomes using real patient data and by reviewing recent studies.

Material and Methods: The subject of this study were 241 patients (male-187 and female-54) who underwent inguinal hernia repair between 2023 and 2024. BMI was categorized as: Underweight: (< 18.5 kg/m²), normal weight ($18.5-24.9$ kg/m²), overweight ($25-29.9$ kg/m²), and obese (≥ 30 kg/m²).

Data were analyzed using Chi-square, Anova test and Statistical Analysis. A comprehensive review of studies published between 2018 and 2024 was conducted using databases such as PubMed, Springer, and Research Gate. Studies were selected based on relevance to BMI and inguinal hernia prevalence or complications.

Result: The result shows that there was significant statistical differences between different groups of BMI. firstly, Hernia Incidence: obese patients had the highest hernia incidence (52% of cases), followed by overweight (26%), Normal BMI (18%), and underweight (4%) ($p < 0.01$). secondly, Surgical Outcomes, Obese patients had longer operative times (mean: 85 minutes vs. 65 minutes for normal BMI, $p < 0.01$) and higher complication rates (38% vs. 8% for normal BMI, ($p < 0.05$). Thirdly, Recurrence: No significant correlation was found between BMI and hernia recurrence ($p > 0.05$).

Conclusion: The findings of this study shows that obesity increases the incidence, surgical challenges and complications of inguinal hernia. Increased intra-abdominal pressure leading to abdominal wall weakness, Technical challenges in surgery due to thicker subcutaneous fat and Delayed wound healing due to metabolic factors. Clinicians should consider BMI in preoperative planning, potentially favoring laparoscopic approaches for obese patients to minimize complications.

References:

Association between different obesity metrics and risk of inguinal hernia

<https://link.springer.com/article/10.1007/s13304-025-02062-y>

Body_Mass_Index_and_Inguinal_Hernia_An_Observational_Study_Focusing_on_the_Association_of_Inguinal_Hernia_With_Body_Mass_Index

<https://www.researchgate.net/publication/346806876>

Risk factors for inguinal hernia repair among US adults

<https://pubmed.ncbi.nlm.nih.gov/37947923/>

Використання чату GPT як інструменту вивчення української мови іноземними студентами медичного факультету

Прізвище ім'я студента: Бхоумік Джугантор

E-mail студента: mf2.bhowmick.jugantor@student.uzhnu.edu.ua

Ужгородський національний університет

Медичний факультет № 2

Кафедра громадського здоров'я і гуманітарних дисциплін

Наукові керівники: к.філол.н., доц. Бойчук Олена, к.філол.н., доц. Малець Наталія

Вступ. Сучасні технології є невід'ємною частиною нашого повсякденного життя. Це твердження стосується й освітньої сфери, зокрема процесу вивчення іноземних мов. Такі інструменти, як інтерактивні навчальні програми, онлайн-уроки, цифрові платформи, автоматизовані перекладачі й мультимедійні ресурси осучаснили традиційні підходи до навчання, зробили його більш динамічним, гнучким та захопливим.

Особливе місце у цій трансформації займає штучний інтелект. Сучасні дослідження підтверджують, що швидке впровадження ШІ у вивчення іноземних мов у поєднанні з можливостями нейромереж відкриває нову еру в освіті як для студентів, так і для викладачів. Інтерес до теми застосування ШІ стрімко зростає. Проте в контексті вивчення української мови як іноземної, особливо з точки зору самих студентів, ця тема досі залишається недостатньо опрацьованою. Саме тому вона є актуальною.

Метою нашого дослідження є аналіз можливостей використання чату GPT у процесі вивчення української мови як іноземної (з акцентом на перевагах та потенційні ризиках такого використання з погляду студента-іноземця).

Поставлена мета передбачає виконання наступних завдань: 1) узагальнити особисті спостереження щодо ефективності використання чату GPT; 2) визначити позитивні аспекти застосування ШІ в навчанні української мови; 3) проаналізувати ризики, які можуть виникати в результаті недобросовісного використання інструменту.

Методи дослідження: спостереження, особистий досвід, аналіз, систематизація, рефлексія.

Результати дослідження. Проводячи дослідження, виокремили такі переваги використання ШІ (зокрема чату GPT):

1. Загальна підтримка у вивченні мови. Чат GPT є ефективним помічником у процесі вивчення української мови. Він надає миттєві переклади, пояснює значення слів і фраз, а також правил. Це постійна мовна підтримка, навіть поза межами аудиторії.

2. Підвищення мотивації. Оскільки відповіді на питання можна отримати у будь-який час, зростає зацікавлення і внутрішня мотивація.

3. Адаптація до рівня володіння мовою. Важливою перевагою є здатність GPT підлаштовувати стиль і складність мовлення під запит студента..

4. Практика складних граматичних структур. Особливість української мови полягає в складній системі відмінювання, узгодження, а також у вживанні доконаного й недоконаного виду дієслів. Навіть знання слова в базовій формі не гарантує його правильного вживання в контексті. Чат допомагає не лише в перекладі, а й у вживанні словоформ, поясненні правил, виправленні граматичних та синтаксичних помилок.

5. Розвиток навичок письма. GPT сприяє розвитку вмінь правильно формулювати думки письмово. Він допомагає розширити словниковий запас, удосконалити побудову речень, перевірити узгодження, а також сприяє формуванню навичок критичного осмислення написаного.

6. Зниження мовної тривожності. Чат GPT створює безпечне середовище для тренування мови без страху бути засудженим. Це особливо важливо для тих, хто соромиться помилок під час живого спілкування. GPT дозволяє експериментувати з мовою, ставити будь-які запитання, що сприяє психологічному комфорту під час навчання.

Водночас позитивний потенціал ШІ може бути знецінений через нерациональне або недобросовісне його використання.

3-поміж ризиків використання виокремили наступні:

1. Можливість формального підходу до навчання. Часто студенти використовують чат лише для виконання домашніх завдань без спроби самостійного аналізу. Наприклад, якщо викладач пропонує тексти для читання з подальшими завданнями на розвиток граматики, лексики і комунікації, студент може просто скопіювати завдання в чат і отримати готову відповідь. Такий підхід нівелює саму ідею навчального процесу.

Особисто вважаю прийнятним використання чату для перекладу окремих фрагментів, пояснення складних граматичних конструкцій або перевірки вже виконаного завдання. Проте повне делегування навчального навантаження на ШІ позбавляє студента можливості розвиватися.

2. Присвоєння чужих думок. Ще одним ризиком є несвідоме копіювання чужих ідей. У межах неформального навчання це не критично. Однак у роботах, що передбачають аналіз, варто формулювати власні думки, а чат використовувати хіба як інструмент редагування та мовної підтримки.

3. Обмеженість у практиці вимови та аудіювання. Серед обмежень GPT варто зазначити відсутність повноцінної практики аудіювання та усного мовлення.

Висновки. Таким чином, чат GPT є ефективним та сучасним засобом підтримки вивчення української мови як іноземної. Він може суттєво підвищити якість навчального процесу, допомогти в подоланні мовних труднощів і сприяти глибшому розумінню матеріалу. Водночас його надмірне або неусвідомлене використання знижує ефективність навчання. Ключовим чинником є особиста мотивація та відповідальність студента. За умови розумного підходу інструменти штучного інтелекту, зокрема чат GPT, можуть стати потужним союзником на шляху до опанування української мови.

EFFECTS OF SLEEPING WITH ARTIFICIAL INDOOR LIGHT ON HEART RATE VARIABILITY: A 13-DAY PILOT STUDY

Arzoo Mushtaq

Uzhhorod National University, Medical Faculty No. 2

mf2.arzoo.mushtaq@student.uzhnu.edu.ua

Trustee: Silvia Patskun, MD, PhD, Associate Professor of Physiology and Pathophysiology Department

Introduction: Artificial light at night (ALAN) can disrupt the human circadian system by suppressing nocturnal melatonin release and altering sleep–wake homeostasis. Chronic circadian misalignment from ALAN exposure has been linked to adverse metabolic outcomes (e.g., weight gain) and increased risk of mood disorders. Even short-term exposure to moderate indoor light during sleep (~100 lux) can acutely raise heart rate and reduce insulin sensitivity.

Amid growing concern about these effects, we conducted a pilot study to examine how sleeping with lights on affects general quality of sleep, leads to anxiety or even depression compared to sleeping in darkness.

Aim of Study: To investigate the impact of nightly indoor light exposure during sleep on circadian alignment by assessing changes in heart rate variability (HRV) parameters (HF, LF, VLF) and self-reported sleep quality, anxiety, and depression over 13 days.

Materials and Methods: Sixteen young adults were enrolled at baseline (7 assigned to sleep with a room light on, 9 to sleep in darkness). Baseline and post-intervention evaluations included subjective sleep quality (rated 1–4), self-reported anxiety and depression, and an active orthostatic HRV test using CARDIOLAB. After the 13-day protocol, 5 participants in the lights-on group and 4 in the lights-off group completed all assessments; the remaining 7 were excluded due to dropout or protocol non-compliance. Within-group pre- versus post-intervention differences were analysed on this final sample.

Results: In the lights-on group, high-frequency (HF) HRV decreased significantly from 52.2% to 24.4% ($p=0.002$) over 13 nights, while low-frequency (LF) increased from 19.6% to 40.0% ($p=0.034$). By contrast, the dark-sleep group showed no significant HF or LF changes ($p=0.15, 0.83$). VLF also showed no change in either group. Regression analysis indicated that higher nervousness and depression scores and worse sleep quality were significant predictors of a lower regulatory systems activity index (indicative of diminished autonomic regulatory capacity).

Conclusion: Sleeping with artificial light on at night degraded sleep quality and shifted autonomic balance toward sympathetic dominance (increased LF, reduced HF). The significant linkage between the regulatory activity index and sleep quality ($p<0.05$) suggests that this light-induced strain on functional systems may lead to suboptimal adaptation and diminished physiological capacity.

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