# Ministry of Education and Science of Ukraine SHEI "Uzhhorod National University" Medical faculty № 2

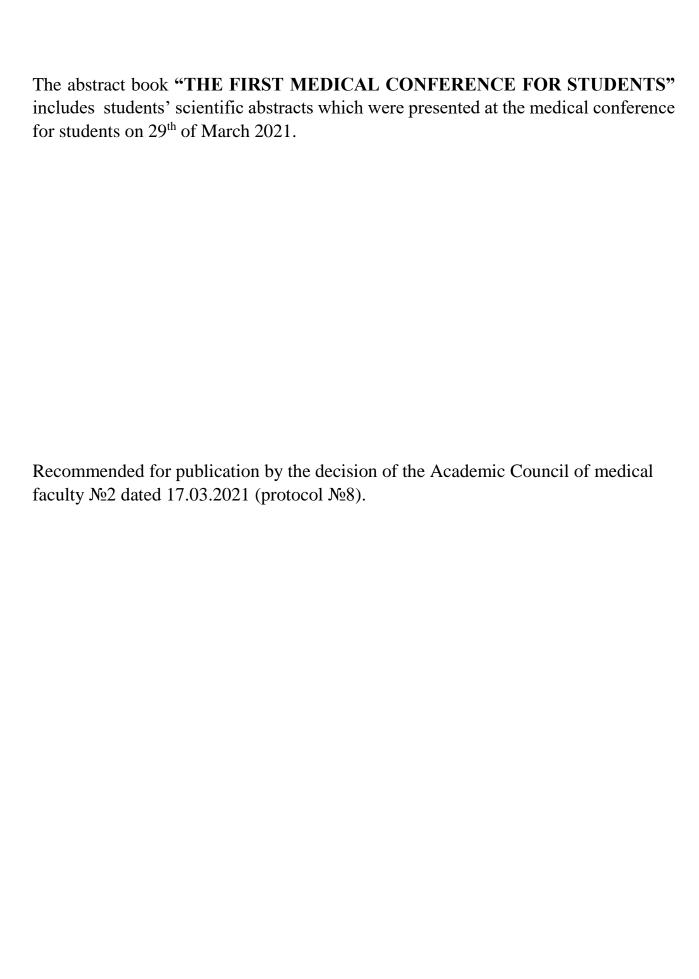
# THE FIRST MEDICAL CONFERENCE FOR STUDENTS



**ABSTRACT BOOK** 

# Ministry of Education and Science of Ukraine SHEI "Uzhhorod National University" Medical faculty № 2

# THE FIRST MEDICAL CONFERENCE FOR STUDENTS March 29, 2021 ABSTRACT BOOK



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Department of fundamental medical disciplines

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# 1. Endothelial function depending on the visceral fat level in the health young students

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**Introduction.** It is known that visceral fat has been linked to metabolic disturbances and increased risk for cardiovascular disease. Obesity is one of today's most blatantly visible public health problems. There is a major concern that medical progress in reducing coronary heart disease, high cholesterol, and hypertension could be reversed by the escalating global epidemic of overweight and obesity - 'globesity'. Obesity is a risk factor for hypertension, congestive heart failure, stroke, renal dysfunction, gallbladder disease, cancer, osteoarthritis, and impaired quality of life. The hemodynamic profile of obese hypertensive subjects is characterized by high intravascular volume, high cardiac output, and increased peripheral vascular resistance.

**Aim of the study**. To find the relationship between endothelial function and the level of visceral fat in the body of young students.

Material and methods. The subject of the study was 33 young men age 18 to 25. The weight, BMI, and the indices of body composition: percentage of body fat (BF, %), percentage of fat-free mass (FFM, %), visceral fat (VF) were measured by body-analyzer Tanita BC-601(Japan). A non-invasive method was used to test the functional state of endothelium by causing endothelium-dependent vasodilatation (device 'REOKOM', Ukraine). Also, we measured the indexes of cardiac function by using thoracic rheography. We measured cardiac output (CO l/min), systemic vascular resistance (SVR, dynes/sec/cm-5.). The data were

analyzed by using the correlation method with statistical program STATISTICA 10.

**Results.** The results show that there was the statistical significant correlation between the index of vasodilatation and cardiac output (r= 0.3916, p<0.027). We found the statistical significant relationship between the level of VF and the index of system vascular resistance (r=-0.4320, p<0.014). Also, we found a negative statistically significant relationship between the index of vasodilatation and the systemic vascular resistance (r=-0.3629, p<0.041).

Conclusions. Our data indicate that the increase in the level of visceral fat leads to a decrease in systemic vascular resistance. Such continuous vasodilatation further could lead to endothelial dysfunction. Due to the negative influence of adipokines on the visceral fat, endothelial cells will lose the ability to synthesize nitric oxide. We suppose that increased visceral fat leads to endothelial dysfunction. Therefore, it could be a risk factor for appearing cardiovascular diseases in the future.

# 2. Association between the functional condition of autonomic nervous system and the level of stress among medical students

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**Introduction.** Stress is a huge problem in today's society. Stress is a physical, mental, or emotional factor that causes bodily or mental tension. A recent study reported stress among undergraduate medical students to be 25.6% - 78% with likely severe personal and professional effects.

**Aim of the study**. To find the correlation between the functional condition of the autonomic nervous system and the level of stress among students.

Material and methods. The subject of this study was 24 young students with the age group from 17 to 22. The functional condition of the autonomic nervous system was evaluated by the analysis of the rhythmogram of heart rate variability (HRV). We used the medical device CardioLab to determine the HRV. The main parameters of HRV were low frequency (LF, %) which describes the sympathetic activity, high frequency (HF, %) which describes the parasympathetic activity and very low frequency (VLF, %) – central the neurohumoral activity. All students were given a Medical Student Stressor Questionnaire (MSSQ) to determine the stress domain which affects them most. Domain I is academic-related stress, Domain II is intrapersonal (self-motivation) related stress, Domain III is teaching and learning related stress, Domain IV is societal and community relationships related stress, Domain V is drive and desire related stress, Domain VI is group activities related stress. The Data was analyzed by Statistica 10, correlation method.

**Results.** The results show that there was a statistically significant correlation between parameters of HRV and the level of stress. Firstly, it revealed that the domains I, II, and VI affect the ANS activity frequently than other domains. Secondly, Domain I had shown the significant correlation with parameter LF (r = 0.57, p < 0.008). Thirdly, Domain II had shown the statistical correlation with LF (r = 0.47, p < 0.034). Fourthly, Domain VI had shown the statistically significant correlation with LF (r = 0.69, p < 0.001).

**Conclusions.** The findings of the study suggest that medical students are overly stressed by their study workload, they have difficulty with interpersonal relationships. These types of stress directly increases the sympathetic activity of nervous system in medical students. Minor level of stress is beneficial and enables a student to become more dynamic and better performer.

### 3. Influence of fat distribution on cardiac function among girls

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**Introduction.** As a standard of living continues to rise, obesity is a growing threat to health in countries all over the world. Obesity is a chronic disease. Although Body Mass Index (BMI) and Waist Hip Ratio (WHR) is widely accepted as denoting obesity, but they do not distinguish between type of adipose tissue, which is accumulate in the body.

**Aim of the study**. To find the connection between the indices of fat distribution and the functional condition of cardiovascular system.

Material and methods. This experiment was done with 20 young girls. All of them were at the age from 18 to 21. They were all completely examined with body analyzator Tanita BC-601 to measure such indices as % of body fat (BF, %), visceral fat (VF, un.), waist hip ratio (WHR), and % of trunk fat (TF, %). The medical device 'REOKOM' was implemented to study the indices of cardiovascular function. The data was analysed by statistical program 'STATISTICA 10'.

**Results.** The results show that WHR has statistical significant correlation only with the index the power of contraction left ventricle (r=0.54, p<0.036). Visceral fat shows positive correlation with cardiac output (r=0.62, p<0.013) and the workload of left ventricle (r=0.72, p<0.002). Trunk Fat shows a statistical significant correlation with stroke volume (r=0.55, p<0.32) and the workload of left ventricle (r=0.62, p=0.013), and the power of contraction left ventricle (r=0.60, p=0.017).

Conclusions. This experiment apparently proves that waist hip ratio does not give full information about the accurate result of regional fat distribution. Moreover, it does not demonstrate the connection with the indices of cardiac function. The indices of regional fat distribution better identify the abnormal accumulation of fat, and have high level of influence on the functional condition of cardiovascular system.

# 4. Interrelationship between the functional state of autonomic nerve system and body composition in young people with different level of anxiety

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**Introduction.** Anxiety is defined as the response to prolonged, unpredictable threat, a response that encompasses physiological, affective, and cognitive changes. Anxiety is a major worldwide health problem with a sizable psychological, social, economic cost, in view of the importance of the autonomic nervous system (ANS) to instantaneously regulate many functions in line with mental and physical needs, therefore it is important to consider the connection between the autonomic nervous system and anxiety with different body composition.

**Aim of the study**. To find the connection between the functional condition of the autonomic nervous system and body composition in young people with different level of anxiety.

**Material and methods**. The subjects of the study were 43 young men with age 18 to 25. The weight, BMI, and the indices of body composition: percentage of

body fat (BF, %), percentage of fat-free mass (FFM, %), visceral fat (VF) were measured by body-analizator Tanita BC-601(Japan). The functional condition of ANS we measured by device 'Cardiolab'(Ukraine). The level of anxiety was estimated by using the 'Anxiety self-assessment questionnaire' the data was analyzed by using the statistical program STATISTICA 10, correlation method. **Results.** We find a significant correlation between the level of anxiety and % of FFM (p<0.005). This connection describes that increasing % of FFM could lead to a reduction of level the anxiety (r=0.4162, p<0.05). We observe a significant connection between the level of anxiety and the % BF (r = 0.3665, p<0.05). Our result demonstrated that PARS has significant positive correlation with a level of anxiety (r=0.3805, p<0.05).

**Conclusions.** Our study suggested that a high percentage of adipose tissue in the body is associated with autonomic dysfunction, which is presented by a reduced level of stress resistance. Moreover, people with a high level of adipose tissue are likely to have a high level of anxiety.

# 5. Research of risk the health problems related to alcohol use among medical students

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**Introduction.** In 2014, WHO reported that alcohol contributed to the occurrence of more than 200 diseases and injury-related health conditions. The use of alcohol as a "sedative drug" remains a major problem of abuse. It is not excluded that

such "sedative" is used by students. Regular consumption of alcohol, especially at high doses, adversely affects the whole body, especially the nervous system.

**Aim of the study**. To analyze the frequency of alcohol consumption among students of the medical faculty  $N_2$  in the gender-age aspect, as well as to analyze the related risks.

Material and methods. An online survey was conducted on the prevalence of alcohol consumption (n=98). A unified AUDIT test was included in the structure of the questionnaire to assess alcohol consumption and its associated risks. Statistical analysis was performed using IBM SPSS Statistics 23 using the  $\chi$ 2-Pearson test and Spearman correlation coefficient.

Results. It was found that 65,3% of respondents did not drink alcohol at all, 15,3% prefer undistilled drinks, and 19,4% distilled drinks. In terms of frequency of alcohol consumption, 10,2% of respondents – once a month or less, 13,3% – 2 or 4 times a month, 6,1% – 2 or 3 times a week, 4,1% – 4 times a week or more. Analyzing the results of the AUDIT test, it was found that 18,4% – increased risk of health problems related to alcohol use and 10,2% – increased risk of health problems related to alcohol use and a possible mild or moderate alcohol use disorder. It was found a correlation between age and frequency of alcohol use (p=0,267, p=0,008). An association was found between gender and risks of alcohol use (p=0,04).

**Conclusions.** 35% of students consume alcohol. It is found that 30% of students have an increased risk of health problems related to alcohol use. The above results highlight the importance of promoting a healthy lifestyle and refusing alcohol consumption, especially among young people.

# 6. Influence of nutritional status on the risk of prediabetes and the frequency of dyspepsia in medical students

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**Introduction.** The global prevalence of prediabetes was estimated at 7,3%. There are many factors that can make a normal person a prediabetic patient and this type of prediabetes can develop into diabetes type 2 in this patient. Students, including the faculty of medicine, are in a state of constant nervous overload and eat poorly which decreases the quality and standard of life. Students usually don't do physical exercises. More consumption of hyperglycemic food has a great impact too.

Aim of the study. To analyze the relationship between nutritional status, prediabetes risk, and frequency dyspeptic symptoms among medical students. Material and methods. An online survey was conducted on the nutritional status and frequency of typical symptoms of gastrointestinal tract pathology (n=119). Also, a unified Prediabetes Risk Test was included in the structure of the questionnaire. Statistical analysis was performed using IBM SPSS Statistics 23 using the  $\chi$ 2-Pearson test, Fisher's exact test, and Spearman's correlation coefficient.

**Results.** The distribution of students by body mass index (BMI) was as follows: 9% – insufficient body mass, 72% – normal weight, 19% – overweight. The frequency of dyspeptic symptoms in the respondents was as follows: heartburn – 10,1%, regurgitation – 9,2%, belching – 10,9%, epigastric discomfort – 13,4%,

epigastric pain – 3,4%, bloating – 10,9 %. nausea. None of the respondents had a risk of prediabetes. However, during the statistical analysis, an association and correlation were found between the risk of prediabetes (in points) and the following characteristics: gender (p<0,001), smoking (p=0,066), alcohol consumption (p=0,043), fast food consumption (p=0,061), physical activity (p=0,007); the correlation BMI and risk of prediabetes ( $\rho$ =0,517, p<0,001).

Conclusions. Prediabetes risk was associated with eating patterns and bad habits. It was also found that 10% of the students had dyspeptic symptoms. Thus, a disorder of nutritional status adversely affects the health and quality of life of students, which requires the introduction of preventive measures.

# 7. Relationship between functional condition of the autonomic nervous system and the level of happiness among students

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**Introduction.** The autonomic nervous system (ANS) is the subconscious arm of the peripheral nervous system, which controls involuntary body function. Moreover, sensory feedback produced by the effects of the ANS contributes to many of the familiar feelings associated with emotions.

**Aim of the study.** To find a correlation between the quotient of happiness and measured activity or functional ability of the autonomic nervous system.

**Materials and methods**. In the study we involved, the Oxford Happiness Questionnaire was used to evaluate the happiness quotient of 15-20 students of age group 18-21(both males and females). The functional condition of their ANS

was examined, using the method of heart variability. Then parameters such as high frequency (HF), low frequency (LF), and very low frequency (VLF), total power (TP) were evaluated. The device "Cardiolab" was implemented to study the indices of the autonomic nervous system. The data were analyzed by the statistical program 'STATISTICA 10'.

**Results.** Analyzing the evaluations, 8 students had a high level of happiness (M=4.36) and 7 had a comparatively low level of happiness (M=3.68). According to the level of happiness, we divided students into two groups with a high and a low level of the happiness. We have found a statistically significant difference between these groups among the level of HF (p<0.05). The level of HF was higher in the group with high level of happiness (M=897.5) in comparison with the group with a low level of the happiness (M=517.8).

**Conclusions.** The findings suggest that the students having a higher happiness quotient had a higher influence on the parasympathetic division of ANS. We could predict, that such emotions as contentment with the life lead to the high activity of the parasympathetic division of the autonomic nervous system.

# 8. Functional conditions of Autonomic Nervous System in young people with sleep disturbances

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**Introduction.** Humans are the only mammals that delay their sleep. Sleep deprivation or disturbances is a silent killer. In recent times, the quantity and quality of sleep have decreased manifold. Chronic sleep deprivation or other

sleep disturbances have an adverse effect on the entire physiology and psychology of an individual, irrespective of any age or gender.

**Aim of the study.** To find the statistical differences between the indices of the functional conditions of the autonomic nervous system in students with and without sleep disturbances.

**Materials and methods.** The subject of the study was students of the 2<sup>nd</sup> course of medical faculty No. 2 with age 18-23. We divided students into two groups: Group 1 included 6 students with sleep disturbances and Group 2 included 6 students without sleep disturbances. We used Pittsburg's Quality Sleep Index (PQSI) to assess sleep quality. The functional condition of the autonomic nervous system (ANS) was measured by a device called 'Cardiolab'. To assess the functional conditions of ANS, we used indices of low frequency (LF, %), high frequency (HF,%) and very low frequency (VLF,%) and the parameter of the regulatory system activity (PARS, un/). The data was analyzed by t-t independent by variables method, STATISTICA 10.

**Results.** This analysis found evidence for significant differences between index of VLF in students with sleep disturbances (M = 41.5 + 12.17) and without sleep disturbance (M = 19.23 + 4.43), (p<0.001). We found a significant difference among the two groups in the index of HF(p<0.004). There was not found a significant difference between the two groups among LF and PARS (p>0.05)

Conclusions. From the above experimental study, we can briefly conclude that students who have sleep disturbances likely to had higher scores according to Pittsburg's quality of sleep index in comparison with students who had not to have any sleep disturbances. Moreover, students with sleep problems have higher activity of the high center of the nervous system and the low activity of the parasympathetic divisions of the autonomic nervous system.

# 9. The accurate measurement of the body composition among young students

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**Introduction.** Nowadays, there are different techniques for the measurement of body composition. Traditionally, body mass index, waist circumstance are widely used in the practice of the general physician. These methods could predict overweight or obesity but could give more detailed information about body composition.

**Aim of the study.** To identify, which method is better for the evaluation of body composition and overweight among young students.

Material and methods. 14 males and 10 females ages 18-20 years old took part in our scientific project. Firstly, we measured the wrist to identify the somatotype. Secondly, we measured the waist-hip ratio(WHR) to identify the peripheral or abdominal fat. Thirdly, we measured body mass index (BMI) and the indices of the body composition by the weight –analyzer Tanita BC-601 to identify the overweight and to receive a detail analysis of the level of lean mass, subcutaneous and visceral fat in the body of the young students. Data were analyzed by statistical method – correlation. The results were significant if the p-value was <0.05.

**Results.** Our results demonstrated that males had a mesomorph type (17.5-20 cm diameter of the wrist). The average value of BMI was  $21.4\pm4.6$  kg/cm<sup>2</sup> and WHR 0.83 that are normal results. According to the body composition, the average value of visceral fat was  $2.4\pm0.58$  un., which means a healthy level.

According to the correlation analysis, we concluded that the index of somatotype had a connection with the index of lean mass (r=0.91, p=0.001), but did not have a connection with fat indices (p>0.05). WHR did not have a statistically significant connection with the index of visceral fat or % of fat around the trunk (p>0.05). According to the female group, participants had also the mesomorph type (wrist is equal to 15-17 cm). The average value of the BMI was  $18.7\pm1.25$  kg/cm² and WHR was 0.8. The value of VF was  $1.8\pm0.36$  un.. These results also corresponded to the healthy level. According to the correlation analysis, the index of somatotype had a connection with % of fat in the trunk (r=0.72, p<0.18). The WHR did not have a correlation with % of fat in the body or visceral fat (p>0.05).

**Conclusions.** On this basis, we concluded that the WHR is not an appropriate index to identify the peripheral obesity among young people. The identification of somatotype also did not give the correct explanation of the physical condition of the human body. The measurement of the indices of body composition is more accurate method to identify the physical condition among young people.

# 10. Intercorrelations among metabolic age, vital capacity and body composition among young students with and without smoking habits

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**Introduction.** An estimated one billion men and 250 million women worldwide are daily tobacco smokers, primarily through cigarettes. Cigarette smoking is the cause of about 90 percent of the world's lung cancer cases. Smoking produces a

chronic inflammatory state, causes endothelial dysfunction, enhances thrombogenesis, can cause insulin resistance and diabetes, and is associated with an atherogenic lipid profile

**Aim of the study**. To find the correlation within the body composition and the metabolic age and the difference between the vital capacity of lungs among smokers and non-smokers students.

Material and methods. The subject of the study was 16 students of the age group 18 to 23. We divided them into two groups: 8 men, who have been smoking for more than one year (group- 1) and 8 non-smoking men (group-2). The weight, BMI, and the indices of body composition: percentage of body fat (BF, %), percentage of fat-free mass (FFM, %), visceral fat (VF), Metabolic age, percentage of fat in the trunk and muscle in the trunk were measured by body-analizer Tanita BC-601(Japan). The vital lung capacity (VLC, l) we measured by a regular spirometer (device 'SPIROKOM'). The data were analyzed by statistical program STATISTICA 10, by using correlation and t-test for independent variables methods.

**Results**. Firstly, we found a statistically significant difference between values of VLC among the group of non-smokers (VLC= $5.84 \pm 0.94$ , l) and the group of smokers (VLC= $3.91 \pm 1.66$ ,l) (p<0.012). Secondly, our results demonstrated that the metabolic age had a significant positive correlation with the level of VF (p<0.001) and the index of BMI (p<0.002) in both the smokers and non-smokers conjointly.

**Conclusions.** Our study suggested that smoking for a long time has a higher risk of having reduced VLC thereby causing a disruption in the respiratory function. Also, we could predict, that people with smoking habits and increase levels of VF are likely to have elevated metabolic age of their body.

### SECTION OF CLINICAL SCIENCES



#### CONTENT

### SECTION OF CLINICAL SCIENCES

### 1. Tuberculosis and pregnancy (obstetric- perinatal aspects )

I-Hsin Yang

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# 2. Smoking status and level of depression among higher education students of medical faculty $N_2$

Mohammed Issah Bin, Nataliya Lizanets

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# 3. Features of psychoemotional status of patients with hepatogenous and peptic ulcers

Sabah Sarmad Hindi, Mousa Faqih, Suhaib abu Zahra.

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### 6. Smoking prevalence among hospitalized patients

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# 7. Comparative evaluation of dyspeptic manifestations in students of first and second years

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### 1. Tuberculosis and pregnancy (obstetric- perinatal aspects)

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Introduction. Tuberculosis (TB) continues to be a major public health problem and challenge in the world. Pregnancy and childbirth are among the factors at an increased risk of tuberculosis. Critical for a woman is the first half of pregnancy, the last weeks before childbirth, childbirth and the postpartum period. Tuberculosis at different stages of pregnancy has a different course. Therefore, it is important to study the features of the course of tuberculosis in pregnant and postnatal women.

**Aim of the study.** To study the peculiarities of the course of tuberculosis in pregnant and postnatal women; to calculate the relative risk of having premature babies between groups of pregnant women.

**Material and methods.** The statistics of Uzhgorod maternity hospital activity were analyzed and it was found that in 2019 in Uzhgorod, 20 cases of tuberculosis were detected among 6010 pregnant women (11 cases of first diagnosed tuberculosis and 9 cases of relapse). The investigated pregnant women were divided into 2 groups: group 1 - first diagnosed with tuberculosis, group 2 - relapse of tuberculosis.

**Results.** Based on the analysis of cases of TB in pregnant women, it was found that the most common (80%) clinical manifestations of tuberculosis were observed in the 2nd and 3rd trimester of pregnancy, and in 20% of women in the 1st trimester had an asymptomatic course and was detected only by the results of the examination as contact persons. According to Fisher's exact test, no

statistically significant association between the groups was detected at p > 0.05. Therefore, the risk of having premature babies in both groups is the same.

**Conclusions.** Thus, tuberculosis has a significant impact on the course of pregnancy, childbirth and the health of newborns (whether or not they are already infected with mycobacterium. Therefore, the task of physicians is to carry out sanitation work to raise public awareness of the need to undergo screening as the most accessible and informative method for detecting tuberculosis.

# 2. Smoking status and level of depression among higher education students of medical faculty N2

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**Introduction.** Smoking is one of the leading factors in the development of negative structural and functional changes in the heart and blood vessels. There are 1,5 billion smokers in the world, with around 5,5 million dying from tobaccorelated diseases (according to data of WHO). Psychiatric disorders, like anxiety and depression, are risk factors for drug abuse and smoking behavior.

Aim of the study. To explore the prevalence of smoking among students of medical faculty  $N_2$  considering alternative methods of nicotine consumption; study of the relationship of smoking with the level of depression.

**Material and methods.** 228 students of medical faculty № 2 were interviewed in order to find out from them: their smoking status, level of depression, and correlation between them. The level of depression was assessed using the patient health questionnaire -9 (PHQ-9). The students gave their informed verbal

consent to participate in the study and were assured about confidentiality. They were asked not to say anything about their identity including their names, families or student numbers. Both questionnaires were anonymous.

**Results.** Among 228 respondents, the proportion of smokers is 38% (n=86), of which 70% (n=60) – current smokers, 30% (n=26) – ex-smokers. However, nicotine consumption through cigarette smoking was 66% (n=57). The majority of students did not have depression, attributed to the fact that most of them belonged to the senior courses of education and are therefore adapted to staying in a foreign country. There was also no reliable relationship between depression and smoking status (p < 0.005). Therefore, after the survey, there was a positive trend toward smoking among students.

**Conclusions.** In addition, most smokers have expressed a desire to quit smoking, which encourages further youth education to regulate this harmful habit. We understand the limitations of our sample, so we plan to continue our research in the future for reliable results.

# 3. Features of psychoemotional status of patients with hepatogenous and peptic ulcers

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**Introduction.** Peptic ulcer refers to psychosomatic diseases. Many scientists attach increasing importance to the role of psychosomatic factors in ulcerogenesis. In the development of chronic liver diseases and portal hypertension, there is a gradual deepening of neuropsychiatric disorders.

**Aim of the study.** To identify differences in the psychological status of patients with duodenal ulcer and symptomatic hepatogenous ulcer.

Material and methods. 36 patients were examined, which were divided into two groups: 18 patients with chronic liver diseases and combined pathology of the gastrointestinal tract and 18 patients with peptic ulcer of the duodenum. All patients were given general-clinical examinations, and for assessing the psychological status, a set of questionnaire tests were performed: Luscher test (color choice test), SAN test (differential functional self-assessment), Spielberger's questionnaire (reactive and personal anxiety scale), and Eysenck questionnaire (to determine the level of neuroticism and indicators of extraversion and introversion). Test results were evaluated in points.

**Results.** By the method of Luscher, in patients of both groups a significantly increased anxiety is accompanied by instability of the emotional sphere. The general condition of the patients according to the SAN deteriorates in both groups of patients and is significantly improved under the influence of treatment, although not all indicators are fully normalized. Analyzing the data of Spielberger's technique, we observed increased levels of reactive and personality anxiety in both groups of patients and a significant decrease in them after the treatment (p<0,05). The Eysenck test in both groups of investigated patients shows the unidirectionality of psycho-emotional disorders in patients and their improvement under the influence of treatment. However, according to its results, the psycho-emotional profile of women with a duodenal ulcer is affected more significantly (p<0,05) than in men, in contrast to patients with hepatogenous ulcers in women and men (p>0,05).

**Conclusions.** In both groups of examined patients, there are marked disorders of the psychoemotional sphere in the form of disturbing and depressive tendencies, instability of the emotional sphere and neuroticism of the person, which should be taken into account during therapy.

### 4. Tuberculosis and HIV infection (the features of combined clinical course)

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**Introduction.** HIV is one of the leading predisposing factor for developing an active tuberculosis disease. The risk of patients with HIV developing active (post primary) tuberculosis or primary progressive tuberculosis increases by 10% every year in the absence of its treatment. If a person with latent tuberculosis infection gets HIV, it can progress to active tuberculosis. As the tuberculosis progresses, it worsens the clinical course of HIV, and eventually the patient suffers. That is why HIV related tuberculosis is called "A DEADLY DUET". Therefore, distinguishing features of the clinical course of tuberculosis on the background of HIV infection in patients with this co-infection is relevant and necessary to improve the health of its population.

**Aim of the study**. Study of the clinical course of the infectious process in patients with tuberculosis in combination with HIV infection.

**Material and methods.** A retrospective analysis of 72 case histories of patients of inpatient wards of the Center for pulmonary diseases was carried out, according to which the following parameters were evaluated: anamnestic data (age, gender, place of residence, type of tuberculosis, resistance to anti-TB drugs, comorbidities and social indicators); laboratory parameters (complete blood count and basic metabolic panel).

**Results.** HIV infection in tuberculosis patients has an atypical clinical course. In patients with tuberculosis combined with HIV infection were detected a decrease in hemoglobin, erythrocytes, leukocytes, monocytes, and total bilirubin in

peripheral blood, an increase in ESR and total protein levels, is significant compared with HIV-negative patients. We found a reliable correlation between the effect of resistance on the type of tuberculosis process and the frequency of complications, the increase of CD4 cells in the peripheral blood of HIV-infected patients during the intensive and maintenance phase of antituberculosis therapy against antiretroviral therapy was found.

**Conclusions.** Since HIV infection in patients with tuberculosis has an atypical clinical course, taking into account the features of the clinical course will avoid errors in diagnosis and management TB in combination with HIV.

### **5.** Influence of genetic factors on left handness

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**Introduction.** Studies suggest that 10% of the world population is left-hand dominant. In India alone, more than 12% of the population is left hand dominant. Because of this enormous difference in the population between left and right-hand dominants, we must consider the possibility of inheritance in this subject matter. There are various factors responsible for left-handedness, the most important of which are genetic factors and yet the importance of inheritance in left handedness is still unclear and scattered.

The scientists have found that handedness has a genetic component (multiple genes, up to 40, contribute to this trait; each of these genes has a weak effect by itself, but together they play a significant role in establishing hand preference;

some of them help determine the overall right-left asymmetry of the body in the earliest stages of development); they stated that being left-handed is just a consequence of the developmental biology of the brain (one of the mutations in left handed people is in protein that organizes cytoskeleton, which changes the development of the brain in utero).

**Aim of the study**. To study the pedigree and inheritance patterns of the left handed people.

**Material and methods**. The pedigrees of 6 left-handed Indian students from our university were studied in details from the position of the main hand.

**Results.** Left-handedness is a complex condition, the pedigree has demonstrated that left-handedness does not follow autosomal recessive, autosomal dominant, X-linked recessive or dominant, Y-linked pattern, mitochondrial inheritance. The family background revealed that from the early childhood if the child used left-hand dominantly, he/she was taught to use right-hand, because LEFT IS CONSIDERED AS SIN. Not everyone was able to do it. This didn't happen in left-handed parents because it was easy to follow them.

### Conclusions.

- 1. The study revealed no clear patterns of inheritance in each family analyzed.
- 2. The left-handedness is not sex linked sign.
- 3. The dominant hand of parent/parents influences their child's decision in using the left hand.

### 6. Smoking prevalence among hospitalized patients

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**Introduction.** The destructive effects of smoking are well known. Despite continued efforts to reduce smoking, more than 1,1 billion people (about one-sixth of the world's population) continue to smoke. There is a high prevalence of smoking among hospitalized patients in hospitals. Health care expenditures for inpatient care associated with addictions amount to several billion dollars annually.

Aim of the study. Study of smoking prevalence among hospitalized patients Material and methods. 69 patients of the Diagnostic and Therapeutic Departments were interviewed at the Center for Pulmonary Diseases in order to find out in them: the status of smoking, and of smoking cessation interventions in hospitalized patients. A systematic review of over 100 literature sources on the prevalence of tobacco smoking, its health effects, treatment modalities, and prevention of tobacco dependence has been conducted. The source of the data was peer-reviewed literature in the specialized registry of EMBASE, PsycINFO, MEDLINE, PubMed, Web of science and Cochrane, the results of randomized controlled trials

**Results.** Among 69 respondents, the proportion of smokers is 71% (n - 49), of which 30% (n - 15) - former smokers, 70% (n - 34) - active smokers. 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.** Therefore, following the worldwide trend of FCTC (Framework Convention on Tobacco Control)-recommended anti-smoking measures, even trying to persuade patients to quit smoking can have a positive effect in the future. This creates the preconditions for extending this practice into the health care network.

# 7. Comparative evaluation of dyspeptic manifestations in students of first and second years

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**Introduction.** Dyspepsia or indigestion is a pain or discomfort in the upper abdomen, including upper abdominal fullness, bloating, nausea and in some cases even vomiting. The relevance of the investigated topic is due to the widespread prevalence among young people around the world and its growth, which has been observed in recent years and in many cases relatively late in diagnosis.

**Aim of the study.** To conduct a comparative assessment of the frequency of dyspeptic symptoms in students of 1 and 2 years.

**Material and methods.** The subject of this study were 62 students from our university, including 30 from the first year and 32 from the second year. They were asked to fill in a confidential and anonymous survey form, which included 20 questions. The data were analyzed by using Microsoft Excel.

**Results.** The results show that students of 1<sup>st</sup> year have symptoms of dyspepsia 20% more often than students of 2<sup>nd</sup> year. The main cause of this increase can be a change in the lifestyle and adapting to a new environment. From the responses of the questionnaire, 60% of students from the 1<sup>st</sup> year eat fast/junk food at least 2 times a day whereas the 2<sup>nd</sup> year students consume junk food as low as once in 2-3 days. Also, nearly 75% of students of the 1<sup>st</sup> year feel fatigued and bloated after consuming this food. The highest percentage in both years was the lack of physical activity and water consumption. It was found that before modules dyspeptic symptoms are more expressed in the students of both years. 85% of

students of the 1<sup>st</sup> year students feel heaviness in the stomach, nausea and urge to vomit but in the 2<sup>nd</sup> year students this percentage is higher and almost close to 90%.

**Conclusions.** The findings of this study revealed that dyspeptic syndrome is more often present in the 1<sup>st</sup> year students. The lack of physical activities and dependence on junk food are the main causes. This study gives us a general idea about the way how the health of the students and especially newcomers can be improved for e.g. by organizing a workshop for the newcomers addressing them about a healthy lifestyle.

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## 1. The comparative specification of public and private health-care system of India: city and rural areas

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Introduction. We live in a century of restructuring, which is significantly related to the health-care system of India. The first revitalization of the health-care system happened in 2002, but the last main four revitalizations were in 2017: the creation of a strong health-care system; focus on increasing of non-infection diseases; increasing of fragile costs, due to the considerable costs for the health-care system and economical increasing on which will extend fiscal capacity. Medical insurance didn't spare India and in 2018 has been developed a project of the public health-care system "Ayushman Bharat". But despite attempts by the country to improve the health-care system of India, in 2015 a higher percentage of costs for health-care goes to personal expenses – 65,06%, and public expenses account for 3,85%. The public structure of the health-care system is not the only one, there is a private structure, which has more better quality of work, funding and capacity.

**Aim of the study.** To investigate the level of the public and private health-care system of India in the different territories and analyzing their work.

**Materials and methods**. For research has been used official materials of the Ministry of the Health-care System and family providing "National politics of health-care", separate articles from economic, medical and political magazines, credible internet sources.

**Results.** In exploring, analyzing, and researching all sources we got the results that the private health-care system of India is more developed than the public. Public expenses account for 75% of common costs for health-care and the only 1/5 part goes to public funding. This is very different from the majority of other countries in the world. According to data of 2017 citizen of India depends on private medical care and amount spent for this care is bigger in 24 times, then costs for the public medical care. About cities and rural areas, according to data 74% of doctors work in the cities and only 26% - in towns. Also there were researched, that rural areas haven't enough financing. It causes a problem of acute shortage of qualified and skilled medical staff, unavailability of diagnostical equipment, medical instrumentation and materials, the high level of abuse by medical stuff of their duties (irrational dispending of drugs, unnecessary surgeries). In local public establishments also there is a problem of lack of stuff and uncompleted system of government organizations, about the financing of these establishments of health-care. That's why people in big cities and other city areas have to go to the private medical establishments.

**Conclusions.** According to the results of research, the public health-care system is not enough developed in comparison with the private health-care system. Medical service in city and rural areas have a list of the same problems: insufficient and inaccessible health care. But they can be solved in the process of reforming the system of health-care.

### 2. Crisis Phenomena in Today's Multicultural World

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**Introduction.** The crisis of culture is a concept that captures the situation that arose as a result of the gap between culture and all its institutions and structures and the dramatically changed the conditions of social life. This phenomenon is most characteristic of the XX – XXI centuries because of the collision of spiritual and ethical ideals with real life: the contempt and cynicism to the ethical norms of the cultural person increase, as well as the envy and nihilism, the elementary politeness is forgotten. Anxiety for tomorrow gets worse as a result of increasing situations of gloomy scenarios and forecasts, extends omnivorous aesthetic.

**Aim of the study.** Identify the main trends of crisis phenomena and way of overcoming them in today's multicultural world.

The urgency of the problem. In a situation of systemic crisis, the most important question is about the importance of culture, spirituality, norms of morality and their security. The security of culture, in the broadest sense, involves protecting the citizens of the country from violent spiritual and ethical upheavals, collisions and destruction. The problem of the close interconnection of culture, science, education, art, religion, and its impact on a person comes to the fore. The XX – XXI centuries demonstrated to mankind culture as an integrative element of social development embraces not only the sphere of the spiritual but, to a greater extent, the material sphere. All the qualities of industrial society were able to turn out in full measure just in our century. In today's society the tendencies connected with the actualization of crisis phenomena, determined by the priority of material values, continue to grow. There is an uncontrolled desire to approve their own benefits, material values that reflect the socio-cultural significance and form a social motivation. Crisis phenomena that have become aggravated in the XXI century require humanity to re-examine certain priorities and concrete actions on the way to solve problems that arise in modern society. The international community shows some concern about the situation in the world. But the obvious is their inability to respond adequately and quickly to the dangerous challenges of the present. In addition to the economic and political problems in the modern world, the environmental is very topical. Global climate change has a significant impact on health, living conditions, and the means of livelihood of all biological organisms, including humans. Besides environmental, other global problems are gaining significant dynamics: human resources supply, disease and demographic development, violence and organized criminality, etc. All these problems are interconnected and multifaceted, they encourage the development of tendencies toward unlimited desire to find as much material goods as possible, which certainly creates social inequality.

Conclusions. A catastrophic gap is growing every year between the traditional humanitarian culture of the European West and the new, so-called scientific culture, derived from the scientific and technological progress of the XX century. Hostility between the two cultures can lead to the death of mankind. There are a number of reasons that give rise to the persistent cultural crisis of the XX – XXI century culture. The common fate of different cultural regions is represented by "catastrophes" which were captured not only by individual nations but by the entire European community in the XX-XXI century: world wars, totalitarian regimes, fascist expansion, international terrorism, economic depression, environmental shocks, and so on. All these processes could not proceed locally, without affecting the inner life of other people, without violating the style of cultural development.

### 3. Peculiarities of english professionally oriented speech of future doctors

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**Introduction.** English professional competence is an integral part of the vocational training of future doctors, since English as the lingua franca is a leading language in the international labour market. For medical students whose medium of instruction is English, it is especially important to have a sufficient level of English professional competences, since their future careers will most likely take place in English professional environments.

**Aim of the study.** The present paper aims to identify the main types of English professionally oriented speech typical for doctors in order to consistently deepen and complicate the vocational content of medical students' speech activity and equip them with the knowledge necessary for effective professionally oriented communication at receptive and productive levels.

**Material and methods.** The following methods have been used in the study: theoretical (analysis of scientific works on ESP methodology and Medical English textbooks with the object to identify the main types of speech presented in them); empirical (polls of medical practitioners in order to identify the main types of speech in medical professional discourse).

**Results.** In English professional speech of medical practitioners, English professionally oriented dialogues prevail among monologic and dialogic discourse. It is more relevant for medical students to study English vocational dialogues, as they are used in a broader range of professionally oriented situations (e.g., dialogues between doctors and patients (medical examinations, interviews,

consultations, discussions of stages and treatment strategies, etc.), dialogues between medical practitioners, dialogues at the councils of physicians). English professional monologues are less common in the medical field (e.g., reports at international conferences; presenting a patient's anamnesis at professional meetings/councils; explaining the course of treatment, diagnosis, etc.). Depending on the leading communicative function performed by a professionally oriented dialogue, there are four functional types of dialogues: dialogueinterview, dialogue-arrangement, dialogue-exchange of impressions/thoughts and dialogue-discussion. The analysis of the content of Medical English textbooks as well as polls of medical practitioners have showed that the dialogueinterview is the most common type (over 50% of all dialogues). Mainly these are dialogues between doctors and patients carried out during medical examinations, interviews, discussions of treatment and diagnosis, etc. The dialoguearrangement (25% of all dialogues) is the second most prevalent type. These are dialogues which are carried out between doctors and patients (dialogues on the appointment of medical examinations and treatment, coordination of treatment plans, etc.) and as well as between doctors and auxiliary medical personnel (dialogues on the course of treatment of the patient). The dialogue-exchange is the third most common type (about 12% of all dialogues). These are chiefly dialogues carried out between doctors (discussion of symptoms, diseases, and causes). The least common type is the dialogue-discussion (about 10% of all dialogues). This type is presented solely by discussions between physicians on possible diagnoses, treatment strategies or symptoms and causes of their occurrence.

**Conclusions.** As the most common type of professional dialogues is the dialogue between doctors and patients, therefore, the development of English professional competence in the dialogue-interview is a priority in studying English for medical purposes.

### 4. The role of English in medical profession

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**Introduction.** As we all know communication has been the source for the exchange of information and thoughts since centuries. This phenomenon of communication more over differentiates us, humans, from other animals. A crucial part of communication is our language. Language has always been a matter of concern, especially when you are a student in search of better carrier opportunities, a good job and a good salary. Hence, it is a big deal in the field of medicine, since this field always has a prominence in the society. With globalization, the internet, television etc., the desire of people to be economically fit is increasing and they are in search of better opportunity to do so.

**Aim to study.** To acknowledge the role of the English language in professional fields like medicine.

Materials and methods. Nowadays the overall development and technological advances have created a global society and globalization has brought a lot of professionals into the international province. Consequently, many professionals from various linguistics backgrounds have to cooperate with the aim of further progress in scientific research. Such situations require the usage of the same language for communication in a multinational scientific community. Due to its extensive usage, English has become the most common language for international communication in a wide range of fields, including medicine. That is why learning English for medical purposes is becoming more and more essential.

**Results.** As a result, in order to expand your knowledge and reach out to the world you need, you should have at list basic knowledge of the English language for better understanding and communication in your specific field, whether it is medical field or any other profession.

**Conclusions.** To summarize, we would like to draw attention to the fact that learning and using a common language like English in our professional and educational lives will help and support people on an international level.

# 5. Role of the gravitational component influence on the jaw bone augmentation results: Statistical hypothesis, prognosis and its argumentation

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**Introduction.** There is no available statistical data that proves the influence of different level of gravity on the success of bone augmentation in condition of normal gravitation and its minor deviation all over the Earth. Most of the researches dedicated to the question of microgravity influence.

Aim of the study. To establish the role of the gravitational component in the structure of augmentation results prognosis by using the method of statistical analysis and mathematical hypothesis in the condition of limited accessible data. Material and methods. Bayesian inference was used to update the probability level for a hypothesis of gravity influence on maxillofacial augmentation results, due to the growth of facts on the different stages of research. The categorization of clinically registered and previously published augmentation results was

provided using the normal distribution curve as a referent for the identification of deviations parameters. Multivariate analysis was provided for establishing the possible range of gravitation influence on the geometrical parameters of jaw bones in natural conditions and after bone augmentation procedures. Bivariate correlation between the range of gravitational force and parameters of jaw bone geometry changes was evaluated by correlation coefficient (Pearson's r) and checked by statistical hypothesis testing.

**Results.** During the statistical analysis of jaw bone augmentation results on the base of provided systematic reviews, meta-analyses and registered clinical trials, it can be noted that with considering the account of random errors and mean deviations, the obtained final data is grouped in accordance to the central limit theorem and the specific character of the distribution, which after approximation can be presented as binomial or normal. Normal distribution of maxillofacial augmentation results provides the possibility to conclude that level of bone augmentation success depends on the large number of impact factors, among which gravity as omnipresent physical phenomenon plays a sufficient role. The data that considering the influence of the normal gravity factor on the results of augmentation interventions in geographical regions with different altitudes was systematized in the form of a polynomial model (equation), considering the possible maximum negative impact of gravity influence in the condition of Earth at peak range of  $2,4\pm0,4\%$  (p<0,05).

**Conclusions.** One of the reasons for the binomial distribution of the augmentation results is based on the dependence of the procedure success on a number of factors (including environmentally-related), one of which is represented by a gravity component. The negative influence of gravity increase could be statistically proven in 0-2,4% range (p<0,05), considering all available data. Nevertheless, by the results of forensic dental examination, there is a statistically proven trend of geometrical jaw bone parameters changes due to the

variations of gravity component parameters at the different territories of Earth, characterized by different gravity-associative derivatives and addictions.

## 6. Statistical phenomenon of cluster loss among patients undergone dental implantation procedure

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**Introduction.** The use of different implant types has been widely prevalent during patients' rehabilitation after critical deformities or alterations of the locomotor system. Considering specifics of dental implants (small size, possibility to insert several objects simultaneously, the capability of replacement), they represent an optimal study model for further analysis of so-called cluster loss, which stands as a statistical phenomenon with a small amount of patients responsible for more than 50% unsuccessful treatment cases in the relationship "study subjects – study objects".

**Aim of the study.** To evaluate the statistical pattern of implant loss among dental patients undergone implantation procedure.

Material and methods. Considering the representation of just unsuccessful cases of dental implant treatment, we have provided a retrospective analysis of patients' medical data of one of the dental clinic in Uzhhorod with anonymization of all study subjects and study base also. Overall analysis included 731 implants placed among 136 patients. Implant success was graded due to the International Congress of Oral Implantologists (ICOI) criteria with implant loss as a target criterion of the study. Further analysis included the clustering process of study

subjects (patients) and study objects (implants) and evaluation of the statistical relationship between them. All data was categorized and systematized using Microsoft Excel software (Microsoft Office 2019).

**Results.** Registered implants survival rate was equal to 92,6%, which represents that 54 of 731 implants get disintegrated in the period of 5-7 years. Results also show that there was a specific statistical pattern of association between quantity of study subjects and quantity of study objects from the point of target criteria (implant loss): 10,3% of the patients with implant loss were responsible for 70,37% cases of implant disintegration, while this correspondence remained stable after 1<sup>st</sup> year of implant functioning. Due to the cluster phenomenon presence from the group of patients among which implant disintegration has developed each patient was responsible for 2,71 implant loss, but among other patients correspondence of implant loss due to the number of subjects with implant loss was equal 1,77.

**Conclusions.** The findings of this study suggest that cluster implant loss remains not only as evidenced statistical pattern, but also as a serious clinical problem, further investigation of which could help to identify for risk factors associated with implant loss.

### 7. Antonyms in Ukrainian modern language: human characteristics

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**Introduction.** The tendency to oppose is one of the characteristic manifestations of the natural features of human thinking. In the process of cognitive activity, the

individual imaginary compares objects, properties, processes, and actions of the surrounding reality, compares them, distinguishing among them the opposite. The objective world, divided in the mind of the individual into pairs of polar concepts, is verbalized in lexical units with contrasting semantics – antonyms. Thus, antonymy is a complex and multifaceted lexical-semantic phenomenon is based on the interaction of extralinguistic categories, concepts of thinking and linguistic units.

**Aim of the study.** The aim of this work is to research the functions of antonyms in semantic sentence organization in the modern Ukrainian language in the texts of Ukrainian literature. The functional and semantic classification of antonyms, their stylistic functions of artistic means were analyzed.

**Material and methods.** The subject of the study is the antonyms in Ukrainian modern language that denote human characteristics. The material for the research is the texts of Ukrainian literature. A comprehensive approach to the studied phenomenon is applied. The main is the descriptive method.

**Results.** The analyzed oppositions are used to denote a person's appearance, character, emotional state, physical properties, and so on. We distinguish antonymous that characterize the appearance of a person (високий — низький, товстий — худий); the features of the character (вдячний — невдячний, розумний — дурний, талановитий — бездарний); human behavior and character (балакучий — мовчазний, добрий — злий, хороший — поганий); age (молодий — старий); mental state, emotions, feelings: (веселий — сумний, спокійний — неспокійний, щасливий — нещасливий); physical properties and human condition (здоровий — хворий, сильний — слабкий, ситий — голодний, живий — мертвий); social characteristics of the person (багатий — бідний, вільний — невільний, рідний — чужий).

**Conclusions.** Polar concepts play an important role in the process of learning the world around us. Binary oppositions reveal the mental state of a person, they

measure moral and ethical principles. That's why a study of antonyms in Ukrainian modern language that denotes human characteristics helps to understand the linguistic and mental picture of the world of Ukrainians.

## 8. The patterns of speech and non-verbal communication of the physician with the patient through the medical ethics and deontology

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**Introduction**. An important part of a successful physician practice is a high level of professionalism which contains a multivariate approach to understanding the subjective world of the patient, the ability to find ways to create friendly contact with the patient. The study of the linguistic units which are conceptual positions of the ethical and deontological picture of the world in medical texts clarifies the formation of scientific text which forms a picture of the world, and promotes the study and practical use of the models of speech and non-verbal doctor's behaviour. The topicality of the research is preconditioned by the lack of study of the content expressive means for the ethical and deontological picture of the world in medical texts.

**Aim of the study**. The aim of this work is to elucidate the patterns of speech and non-verbal communication, that in practice will support the effective communication of the physician with the patient in the course of treatment, which is a primary factor for successful treatment.

**Material and methods**. The subject of the study is the linguistic means and methods of presentation of conceptual meaning in the medical ethical and deontological text. The material for the research is the corpus of medical texts

that have a practice-deontological direction. The study has used descriptive, comparative methods, as well as the method of linguistic experimentation to study a specific linguistic and cultural situation.

**Results.** In the texts on medical ethics and deontology the conceptual model with the binary center "doctor – patient" prevails, where the doctor and the patient alternately act as both the subject and the object, and the concept of "disease" is the basic component of this model. The analysis of the physician's linguistic behaviour has revealed the strategies and techniques that are the communicative mechanisms of the doctor's professional communication. These include settings for comforting, encouraging, compassion, reducing the patient's negative reaction, and psychological support through which the doctor tries to help the people who report on their problems.

**Conclusions.** A study of professional communication of the doctor has identified types of physician professional communication that are relevant to medical ethics and deontology.

# 9. Main nozological forms of malignant neoplasms in the sex-age structure of morbidity and mortality of the population of Ukraine in the period from 2014 to 2018

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**Introduction.** Cancer is one of the leading causes of morbidity and mortality worldwide. In recent decades, malignant neoplasms in various countries have begun to occupy a leading position, only slightly yielding to diseases of the circulatory system.

**Aim of the study.** Retrospective analysis of cancer morbidity and mortality in Ukraine by sex and age from 2014 to 2018.

**Materials and Methods**. The materials of the National Cancer Registry of Ukraine were used to conduct the study and the Microsoft Office Excel was used to process statistical data.

**Results**. The study examined the incidence and mortality of the most common nosological forms of cancer among men and women of different ages.

For the age group 0-17 years, the most common causes of the disease are leukemia (women - 27.38%, men - 31.36%) and brain oncopathology (women - 13.22%, men - 14.62%). Regarding the mortality in this group, the same diseases predominate both among women (leukemia - 28.04%, brain oncopathology - 27.02%) and men (leukemia - 26.06%, brain oncopathology - 24.16%).

Among people aged 18-29 years, Hodgkin's lymphoma in both women (13.2%) and men (14.16%) has the highest incidence, while the highest mortality rate is due to brain damage - women - 11, 08%, men - 13.1%. In the sex distribution - testicular cancer is in the lead among men (15.28%), and thyroid cancer - among women (20.24%) in the study of morbidity, while mortality among men most often occurs due to leukemia (14.36%) and among women due to diseases of the cervix (11.2%).

Among men aged 30-54, the most common pathologies are malignant neoplasms of the trachea, bronchi, lungs, and stomach (morbidity - 13.2%, mortality - 19.58%). Among women of the same age category, oncological lesions of the breast (morbidity - 26.94%, mortality - 23.62%) and cervix (morbidity - 13.26%, mortality - 15.04%) predominate.

Among men older than 55 years, the first position in the incidence is occupied by prostate lesions (11.84%), while in men older than 75 years, prostate cancer is one of the most common causes of death (17.12%).

Women 55 years and older most often suffer from breast cancer (20.32%) and uterine cancer (11.7%), and mortality is most common due to colon cancer (8.38%) and breast cancer (20.84%).

Conclusions. Analysis of the results of the study suggests that younger men and women are more likely to suffer from brain damage and leukemia, while with age the risk of disease of the trachea, bronchi, lungs, and prostate in men increases; breast and cervix in women. According to statistics - women with age have a higher risk (than men) of developing cancer.

# 10. Relation between dietary habits of Transkarpathian region population and alimentary obesity level growth. Possible ways of obesity problem solution

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**Introduction**. Over the past decades, overweight and obesity have become a global and socially significant problem. According to experts, about 1.7 billion people on our planet are overweight, and about 300 million are obese. According to the WHO, the number of obese people has doubled in the last thirty years. Overweight and obesity are serious food problems and are associated with premature mortality, an increased risk of cardiovascular disease, diabetes, cancer, and other dangerous conditions.

**Aim of the study**. Retrospective analysis of the prevalence and incidence of alimentary obesity in the population of the Transcarpathian region.

**Material and methods**. Materials of the annual collection "Chain of institutions and key performance indicators of the health care system of the Transcarpathian region", Microsoft Office Excel was used to process statistical data.

**Results**. Based on our statistical data analysis on the incidence of the Transcarpathian population we can say about the increase in the number of patients with alimentary obesity in the period from 2014 to 2018 by 21.6%. The number of patients diagnosed for the first time decreased by 11.9%, and the number of patients under dispensary supervision increased by 20.7%. Morbidity and prevalence increased by 12.9% and 21.7%.

Conclusions. Obesity is associated with high morbidity, mortality, and reduced quality of life. Based on the study and synthesis of statistics, we can state a tendency of obesity incidence increasing in the period from 2014 to 2018, which indicates the necessity to improve outdated and identify updated and more effective methods of diagnosis, prevention and treatment of obesity. The treatment approach of obesity should be comprehensive and adequately assess the state of health in real time, in order to provide appropriate medical care. However, the best way to improve population health is to prevent the causes and consequences of obesity.